4th Workshop on the China (Sichuan Basin) Case Study
Petroleum Policy and Management, CCOP
Foreign Experts Building, Beijing, China
29 May – 3 June 2006

Strategies for Natural Gas Management

Ramon Allan V. Oca
Director, Energy Resource Development Bureau
Redentor D. Pascual
Supervising Science Research Specialist, PRDD
Department of Energy, Philippines

Outline

- Petroleum Law
- Provisions on Natural Gas
- Philippine Petroleum Fiscal Regime
- Natural Gas Resources
- Onshore Gas Fields
- Peak Demand Forecast
- Power Generation Forecast
- Gas Supply Forecast
- Investment Opportunities & Requirements
- Major Programs in Natural Gas
- Infrastructure Development Programs

Petroleum Law

- **Presidential Decree No. 87: "The Oil Exploration and Development Act of 1972"**
  - * Service Contract System
    - Service Contract (SC)
    - Geophysical Survey and Exploration Contract (GSEC)
  - * Philippine Petroleum Contracting Round

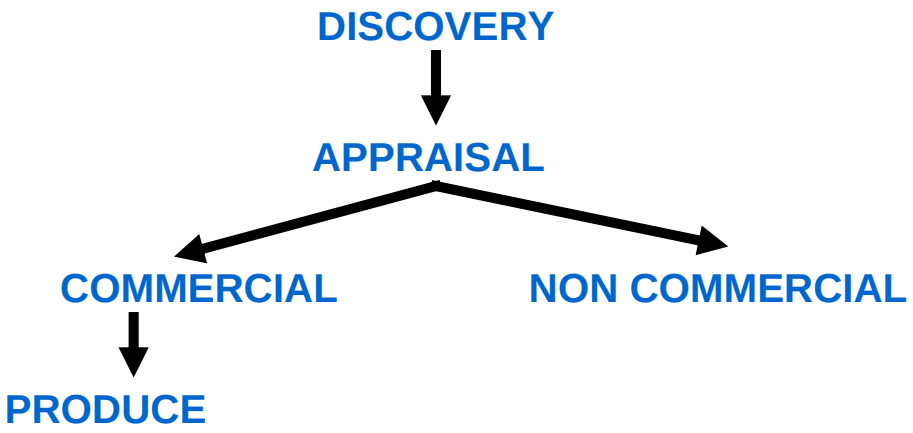
Provisions on Natural Gas

Associated Gas

- Shall be used primarily for purposes related to production operations and production enhancement
- Contractor has the obligation to evaluate the feasibility of commercially producing any excess associated gas

Provisions on Natural Gas

Non Associated Gas



Provisions on Natural Gas

Sales

- Contractor to market the gas including the Government share of petroleum
- Pricing based on internationally prevailing general pricing principles

Philippine Petroleum Fiscal Regime

Contract Area	800-15,000 sq km (offshore); 500-7,500 sq km (onshore)
Contract Term	7 yrs exploration + 3 yrs extension + 25 yrs production + 15 yrs extension
Signature Bonus	US$ 50,000 – 250,000
Royalties	None
Income Tax	Tax rate: 32% - paid out of Government share
Cost Oil / Gas	Cost oil limit: 70% of gross income Capital expenditures depreciated over 5 to 10 yrs.
Profit Oil / Gas	Government share: 60% FPIA up to 7.5% of gross proceeds with at least 15% Filipino participation
State Participation	None

Filipino Participation Incentive Allowance (FPIA)

Schedule of Percentage Incentive

Filipino Participation	Incentive Allowance
30% - above	7.5%
27.5% but less than 30.0%	6.5%
25.0% but less than 27.5%	5.5%
22.5% but less than 25.0%	4.5%
20.0% but less than 22.5%	3.5%
17.5% but less than 20.0%	2.5%
15.0% but less than 17.5%	1.5%
Below 15.0%	0.0%

SC Profit Sharing (with FPIA)

$ 100.00	Gross Proceeds
7.50	less FPIA (to Contractor)
70.00	less Cost Recovery (to Contractor)
$ 22.50	Net Proceeds
$ 13.50	60% Government Share
$ 9.00	40% Contractor's Share

SC Profit Sharing (without FPIA)

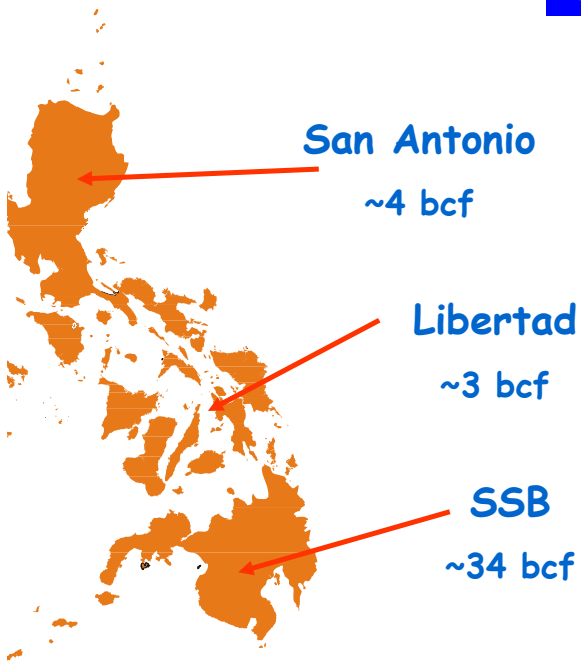
$ 100.00	Gross Proceeds
70.00	less Cost Recovery (to Contractor)
$ 30.00	Net Proceeds
$ 18.00	60% Government Share
$ 12.00	40% Contractor's Share

Natural Gas Resources

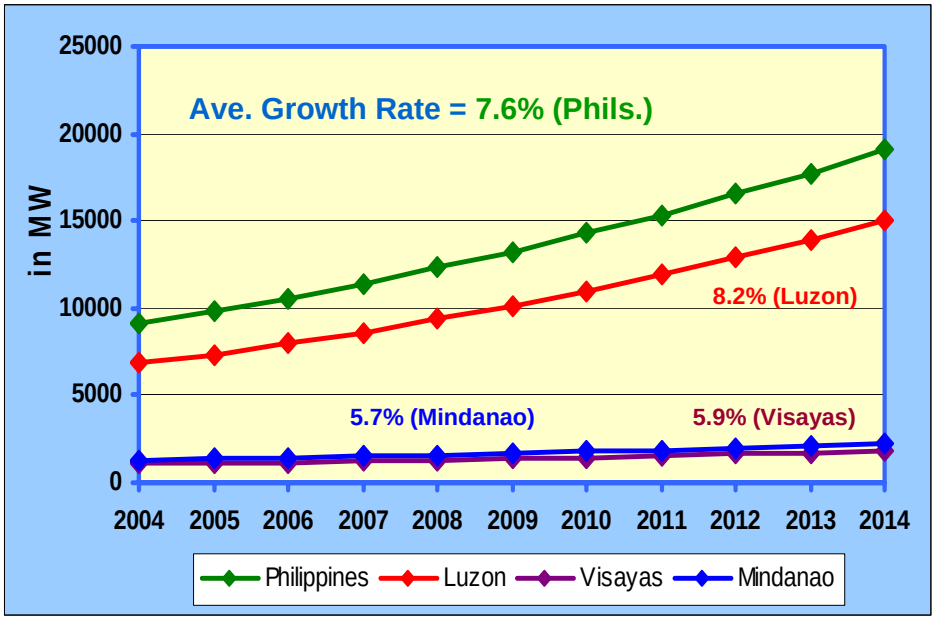
- **Discovered: 3.8 Tcf**
- **Undiscovered: 24.7 Tcf (33% mapped)**

Onshore Gas Fields

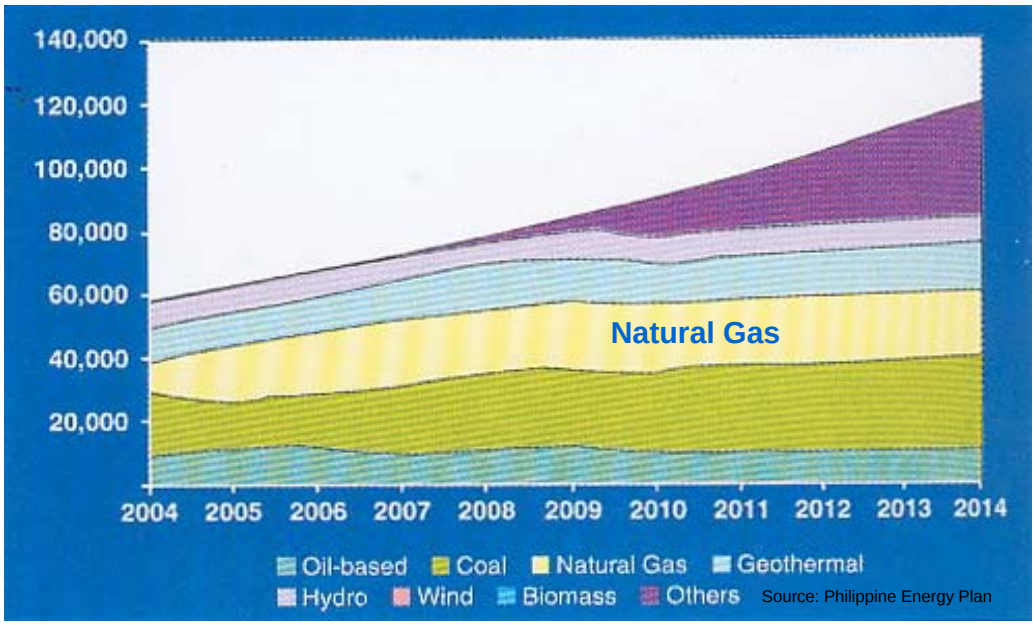
- San Antonio
  - Currently used for power generation and NGV fuel
- Libertad
  - To fuel 1.75 MW power plant
- Sultan-sa-Barongis
  - For further evaluation



Peak Demand Forecast
(in MW)

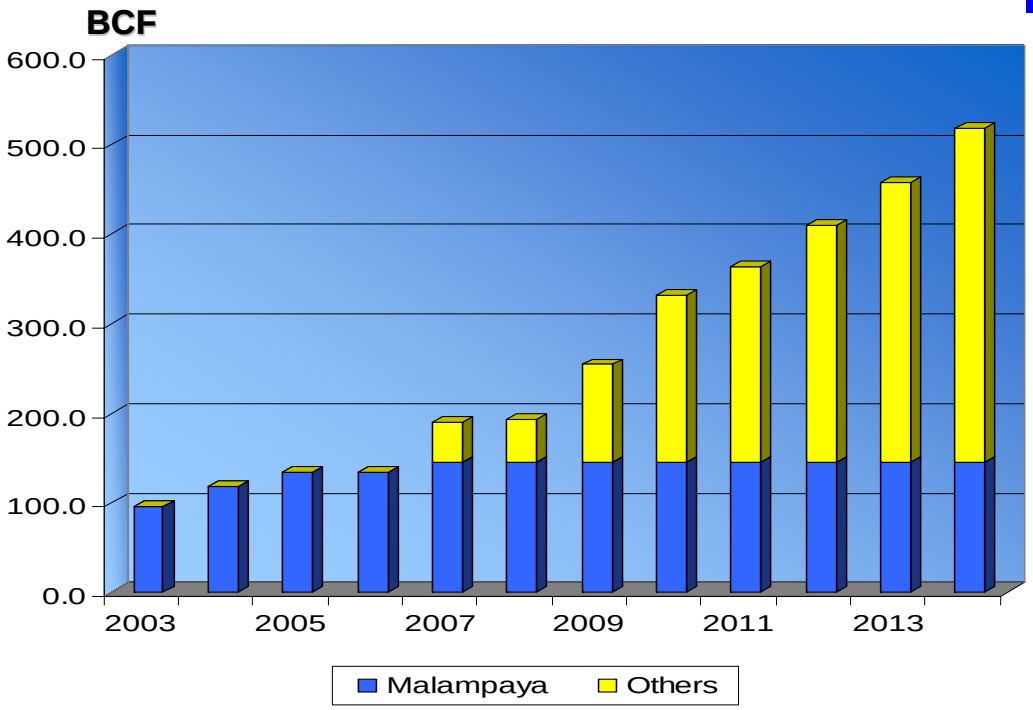


Power Generation Forecast
(in GWh)



Source: Philippine Energy Plan

Gas Supply Forecast



Investment Opportunities & Requirements

- Pipelines
  - 423 km of Transmission
  - 504 sq km of Distribution
- Gas-fired Power Plants
  - 4200 MW of Greenfield
  - 2100 MW of Conversion
- Gas in Industry
  - 30 Ecozones
  - Cogeneration Systems
- Gas In Buildings
  - Cogeneration Systems
  - District Cooling

- Gas in Transport
  - Conversion Kits
  - 3000 units of CNG Vehicles
- LNG Terminals
  - Additional Gas Supply

Major Programs on Natural Gas

- NGas Infrastructure Development
- Investment Promotion
- Market Identification & Development
- Implementation of DOE Circular 2002-08-005
- Advocacy for the passage of the Downstream Natural Gas Bill
- Implementation of MOU/A on Downstream Natural Gas

Infrastructure Development Program

Transmission Pipelines in Luzon

- BATMAN 2 (Bataan - Manila) 140 kms.
- ET LOOP (EDSA – Taft Loop) 40 kms.
- SU-MA (Sucat - Malaya) 35 kms.
- BATCAVE (Batangas – Cavite) 40 kms
- RO-BIN (Rosario - Biñan) 35 kms.
- BATMAN 1 (Batangas Manila) 80-100 kms.
- CATLINE (Calaca Spurline) 30 kms.

Infrastructure Development Program

Proposed LNG Terminal & CNG Mother/Daughter Stations

- Proposed LNG Terminal
- Proposed Site for CNG Daughter Station
- Proposed LNG Terminal
- Proposed LNG Terminal
- Proposed Site for CNG Mother Station

Strategies for Natural Gas Management
(Source: NGO & ERDB Presentations)

Infrastructure Development Program

National Pipeline Network

THANK YOU!