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# THE PHILIPPINE ENERGY SECTOR

## *“Three Years of Reforms”*

14 October 2004

Secretary Vincent S. Pérez  
Department of Energy



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# OUTLINE OF PRESENTATION

1. Power Sector Reforms
  - What Has Been Done?
  - Critical Reforms Underway
2. Power Demand-Supply
  - Profile of Supply Requirement
3. Challenges in the Power Sector
4. Way Forward



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# Power Sector Reforms



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# **POWER SECTOR REFORMS**

## *Republic Act 9136 - Electric Power Industry Reform Act (EPIRA)*

- Landmark legislation took effect on 26 June 2001
- Provides for the:
  - Privatization of the National Power Corporation (“NPC”)
  - Creation of Transmission Company (“TRANSCO”)
  - Creation of Power Sector Asset and Liabilities Management Corporation (“PSALM”)
  - Creation of Energy Regulatory Commission (“ERC”)
  - Creation of Wholesale Electricity Spot Market (“WESM”)
  - Establishment of Open Access for competitive consumers



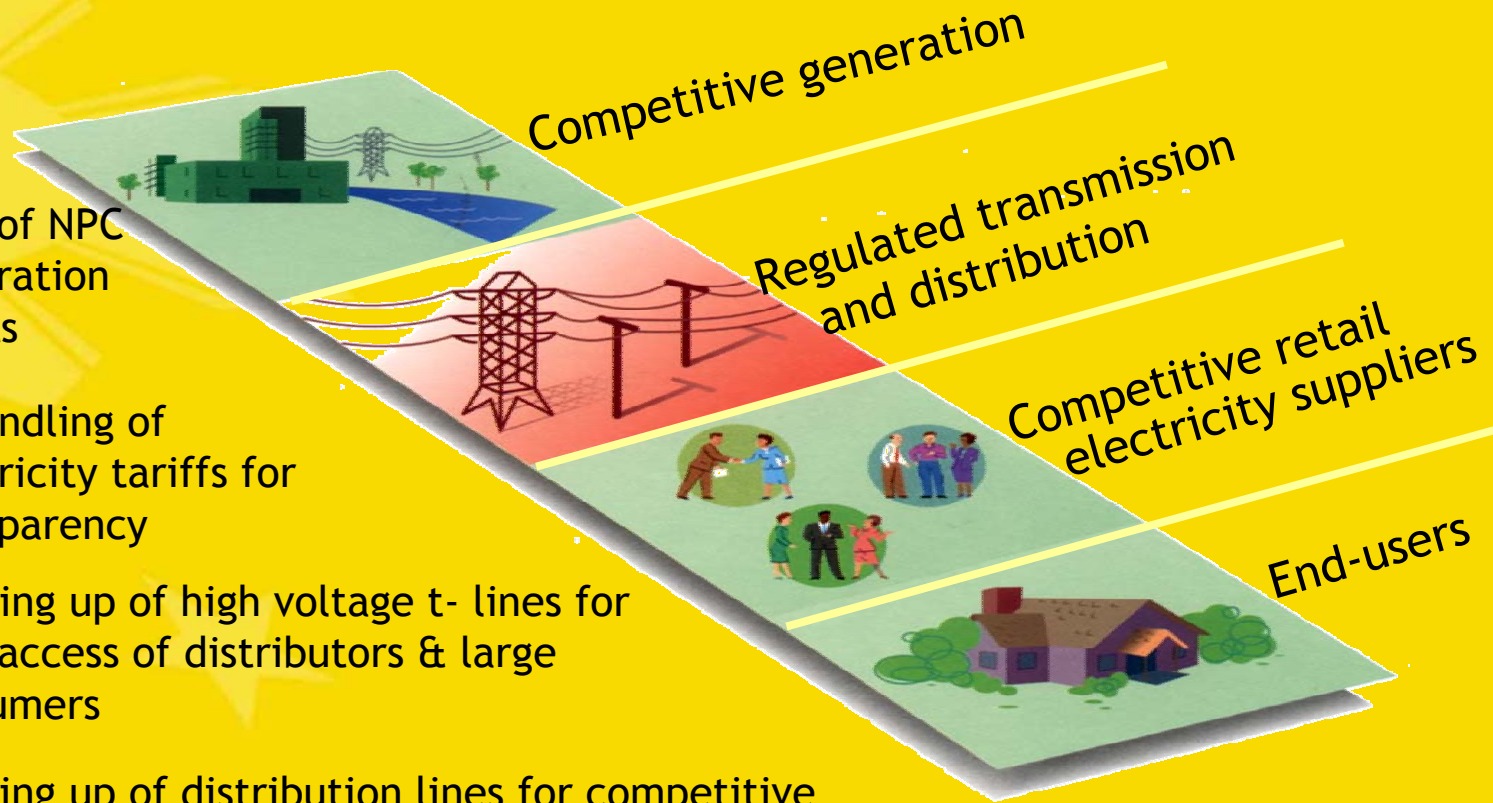
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# POWER SECTOR REFORMS

## *New Electricity Structure*

- Sale of NPC generation assets
- Unbundling of electricity tariffs for transparency
- Opening up of high voltage t- lines for easy access of distributors & large consumers
- Opening up of distribution lines for competitive consumers





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# POWER SECTOR REFORMS

## *What Has Been Done*

- Regulatory Framework
  - Reconstitution & Strengthening of the Energy Regulatory Commission
  - Grid & Distribution Codes promulgated in December 2001
  - Various guidelines governing the generation, transmission and distribution sectors already in place
- Consumer Protection
  - Immediate implementation of the P0.30/kWh Mandated Rate Reduction for Residential Consumers
  - Magna Carta for Residential Consumers
  - Continuous implementation of lifeline rate for marginalized residential consumers



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## POWER SECTOR REFORMS

### *Critical Reforms Underway: Reflecting True Cost of Power*

- Reflecting true cost of power to attract new investment in the power generation sector
  - The ERC issued in Sept. 2004, provisional authority to increase NPC rate by an average of P0.98 / kWh
  - New Effective NPC Generation Rates per Grid
    - Luzon                      P 3.8054 / kWh  $\cong$  \$0.067 / kWh
    - Visayas                    P 3.0374 / kWh  $\cong$  \$0.054 / kWh
    - Mindanao                 P 2.0700 / kWh  $\cong$  \$0.037 / kWh
  - ERC to formulate pricing policy that makes returns & risks manageable to investors



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# POWER SECTOR REFORMS

## *Critical Reforms Underway*

- Introduction of performance-based rate methodology (PBR)
  - PBR for TransCo promulgated by ERC in May 2003
    - Based on maximum annual revenue
    - Patterned after PBR regime in State of Victoria & UK
  - Formulation of PBR for private distribution utilities
    - Based on maximum annual price caps
    - ERC targets to finalize DWRG before end-2004
- Adoption of new Systems Loss Cap for private distribution utilities

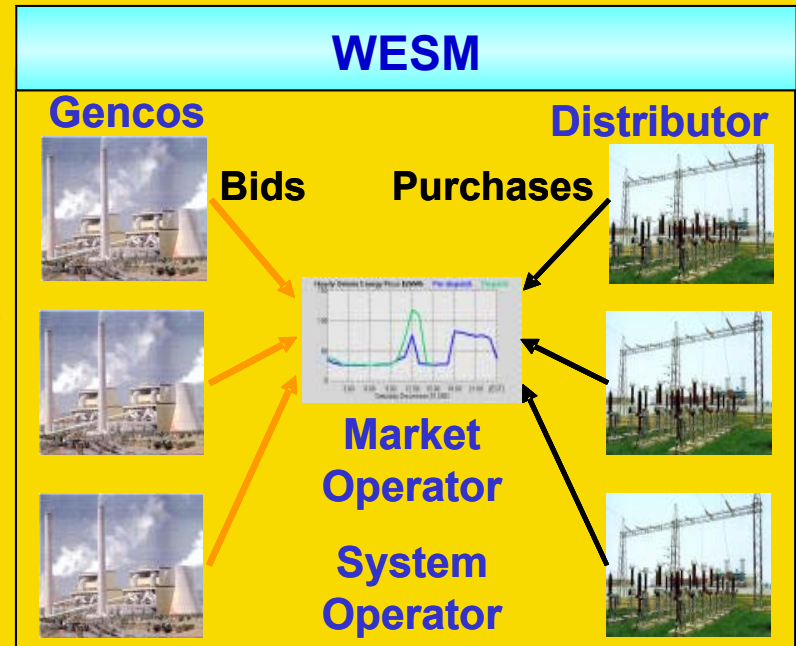




# POWER SECTOR REFORMS

## *Critical Reforms Underway*

- Wholesale Electricity Spot Market (WESM)
  - Registration process for WESM participants by Dec. 2004
  - Trial operation in Luzon to commence by June 2005 to test the rules, systems & procedures
  - Commercial operation in Luzon by July 2006





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# POWER SECTOR REFORMS

## *Critical Reforms Underway*

- Removal of 3 types of Cross-Subsidies
  - Inter-Regional (Between Various Grids)
    - Fully phased-out by the ERC unbundling decision of NPC on 26 June 2002 (P0.07/kWh)
  - Intra-Regional (Within a Grid)
  - Inter-Class (Between Classes of Customers)



# POWER SECTOR REFORMS

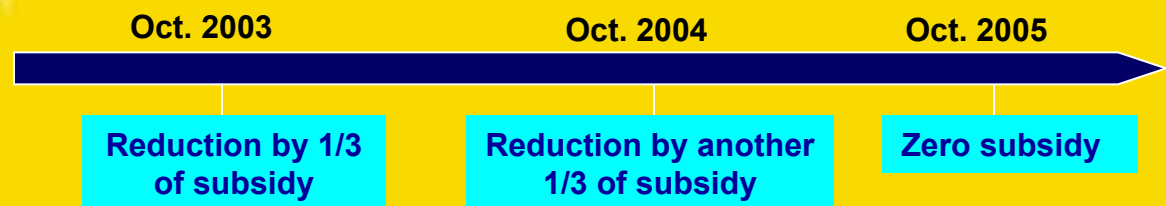
## *Critical Reforms Underway*

### Intra-Regional Cross Subsidy Removal (P/kWh)

- Reduction by 1/3 of the original subsidy, beginning October 2003

Customer Classification	Original Subsidy	Revised Subsidy	Sept. 2005
Small Utilities	0.5009	0.3339	0
Other Utilities	0.5009	0.3339	0
Non - Utilities	0.5009	0.3339	0
MERALCO	0.5033	0.3355	0
Steel Industries	0.3629	0.2419	0
Government Agencies	0.3627	0.24	0

#### o Timeline

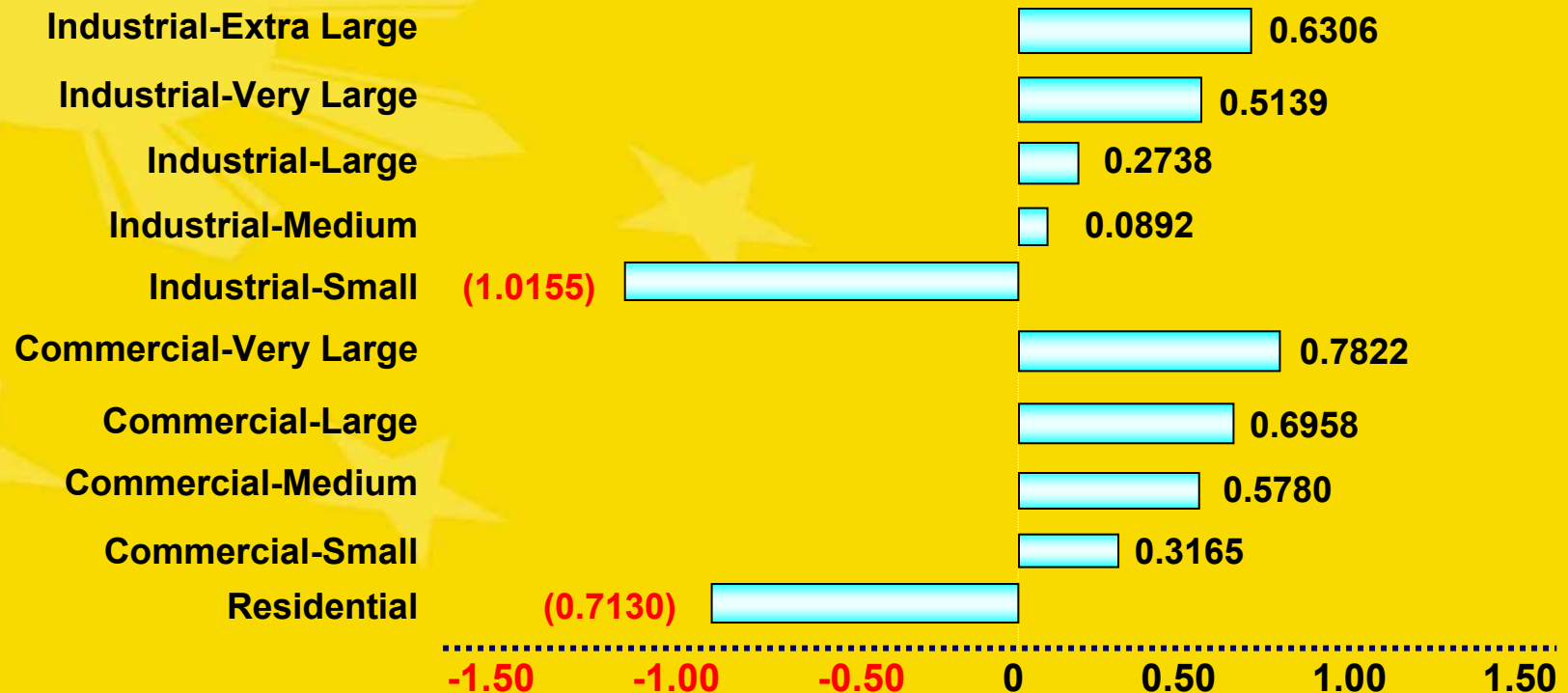




# POWER SECTOR REFORMS

## *Critical Reforms Underway*

### ● Meralco Inter-Class Cross Subsidies (P/kWh)



*To be removed by ERC 40% in October 2004 & 60% by October 2005*



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# POWER SECTOR REFORMS

## *Critical Reforms Underway*

- MERALCO Inter-Class Cross-Subsidy Removal (P/kWh)

Customer Class	Oct. 2004	Oct. 2005	Cum. Effect
Industrial (Medium)	(0.0357)	(0.0535)	(0.0892)
Industrial (Large)	(0.1095)	(0.1643)	(0.2738)
Industrial (Extra Large)	(0.2522)	(0.3784)	(0.6306)



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# POWER SECTOR REFORMS

## *Critical Reforms Underway*

- Retail Competition and Open Access
  - Scheduled by ERC to commence by July 2006 in Luzon Grid with contestable market to comprise of end-users with 1MW monthly average peak demand
  - Threshold level for contestable market in Luzon grid to be reduced to 750kW with supply aggregators allowed
  - Visayas and Mindanao Grid to be determined separately



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# POWER SECTOR RELIABILITY

## *Transmission Sector*

- Transmission Operation
  - No Luzon Grid blackout since May '02
  - First ASEAN utility to be ISO 9000 certified
  - System interruptions reduced by 50% since May 2003





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# POWER SECTOR PRIVATIZATION

## *TransCo Privatization*

- Transmission assets
  - Privatization via concession of 25 years, renewable for another 25 years
  - After 2 failed bids, PSALM undertaking negotiations with qualified parties
  - Last 06 October, four interested parties submitted price offers for the concession
  - Award of concession to be undertaken through 2<sup>nd</sup> round of public bidding







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# POWER SECTOR PRIVATIZATION

## *Genco Privatization*

- Generation assets
  - Privatization of at least 70% of NPC generation assets in Luzon & Visayas by end 2005
  - PSALM already privatized 4 hydro plants
    - 3.5 MW Talomo HEP
    - 1.6 MW Agusan HEP
    - 1.8 MW Barit HEP
    - 0.4 MW Cawayan HEP

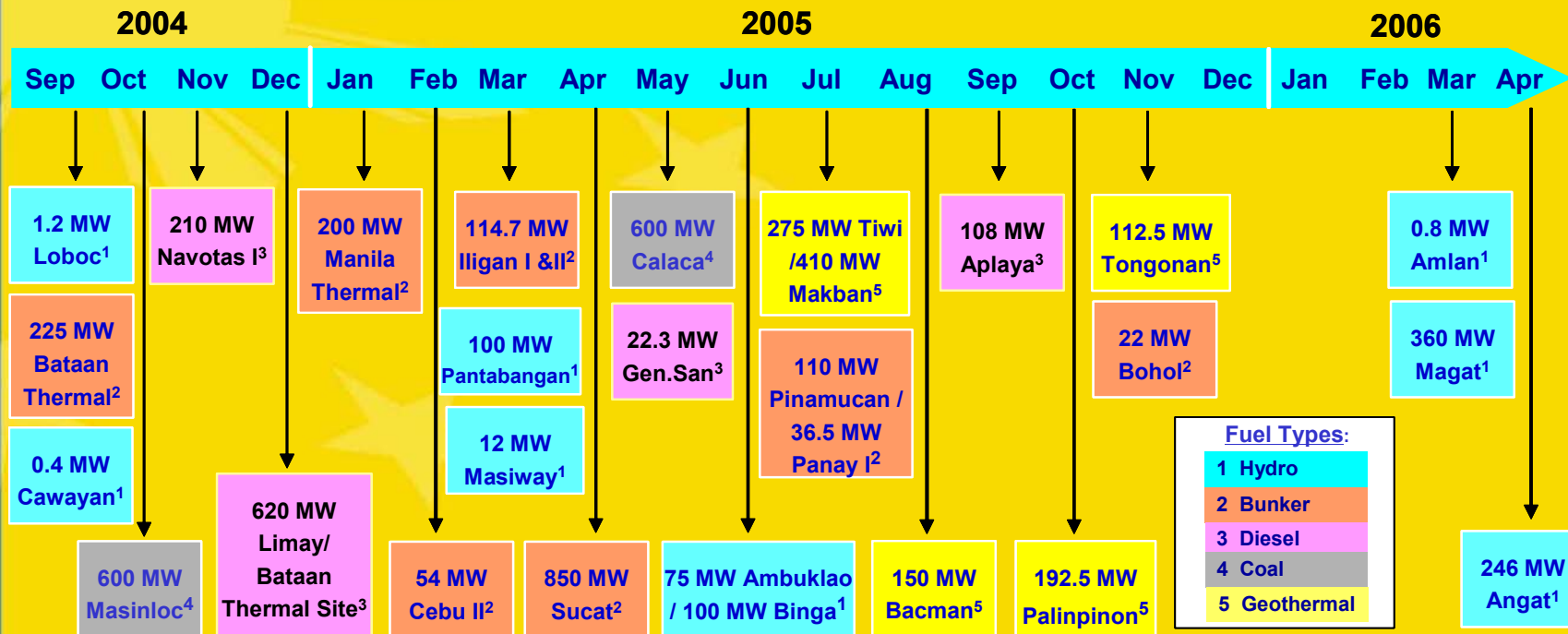




# POWER SECTOR PRIVATIZATION

## Genco Privatization

### Accelerated Genco Privatization Schedule





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# Power Supply-Demand



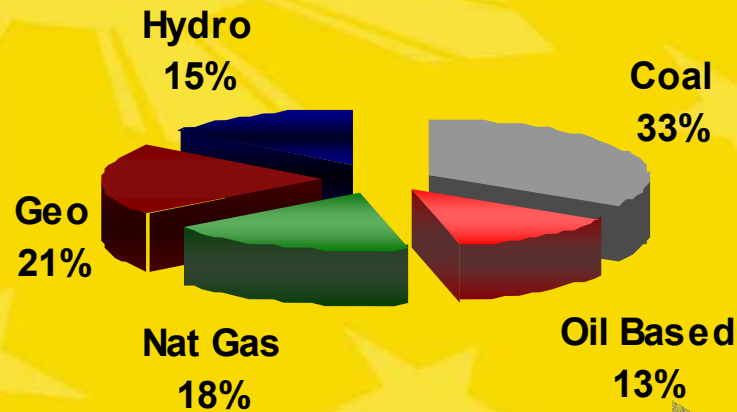
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# POWER DEMAND-SUPPLY SCENARIO

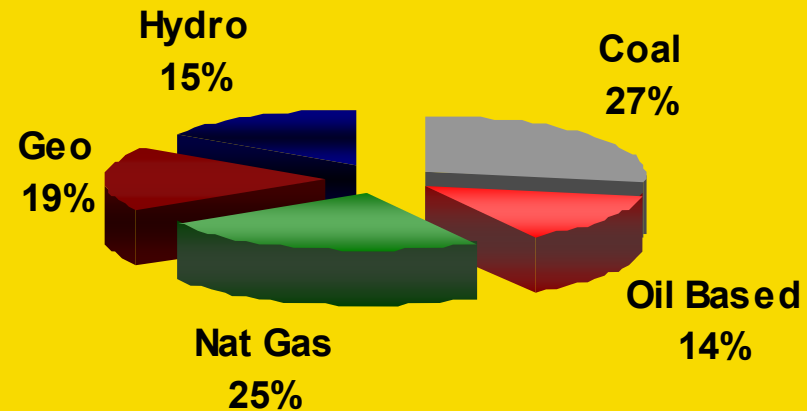
*Power Mix, Actual 2003 vs. 2002*

2002



**TOTAL : 48,467 GWH**

2003



**TOTAL : 52,863 GWH**



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# POWER DEMAND-SUPPLY SCENARIO

*Actual 2003 Highlights*

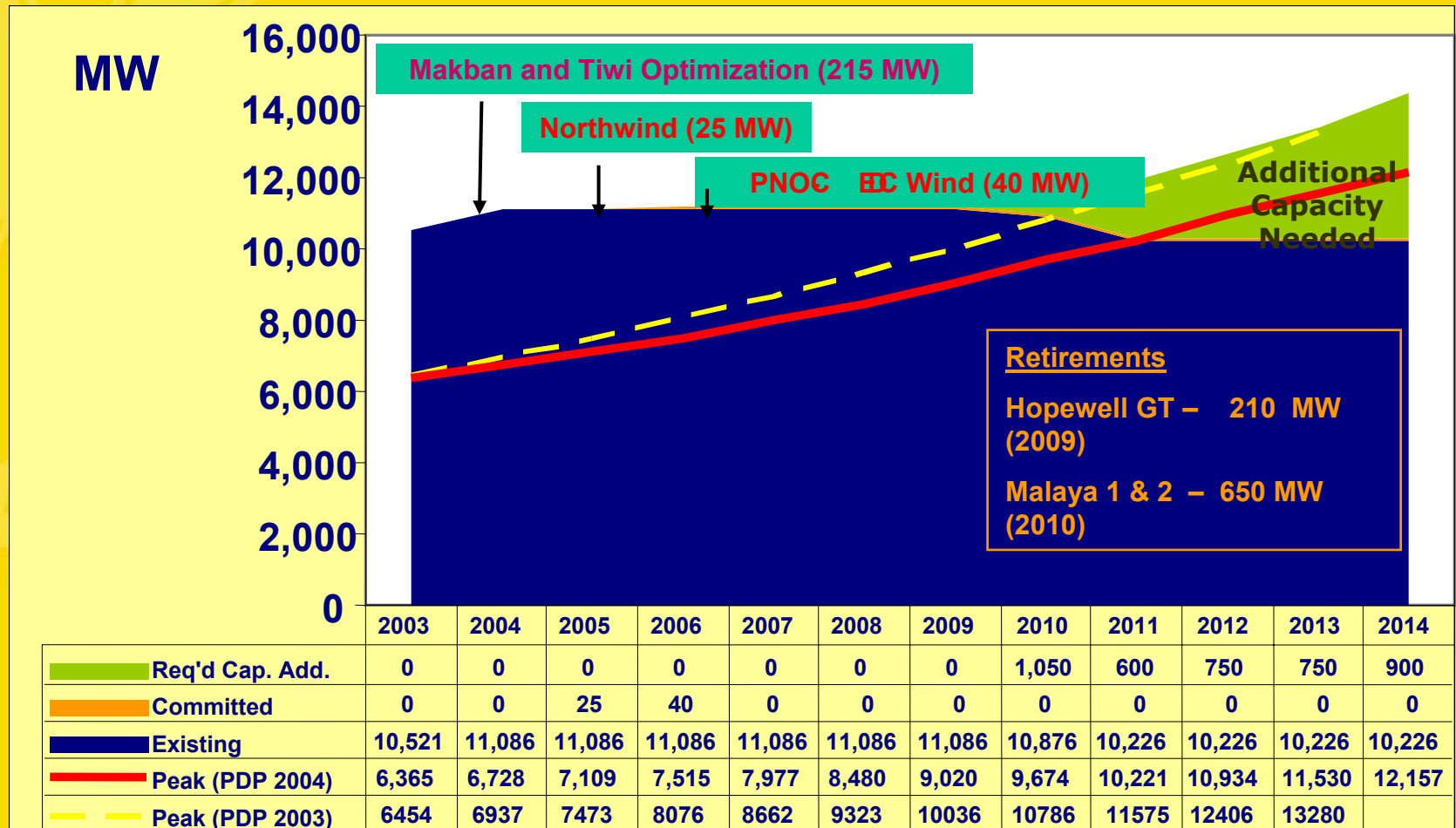
## System Peak Demand (in MW)

	2003		2002	% Increase 2003 vs. 2002
	Actual	Forecast	Actual	
Luzon	6,149	6,454	5,823	5.60
Visayas	924	1,006	903	2.33
Mindanao	1,131	1,049	995	13.67
Philippines	8,204	8,508	7,721	6.26



# POWER DEMAND-SUPPLY SCENARIO

## Luzon



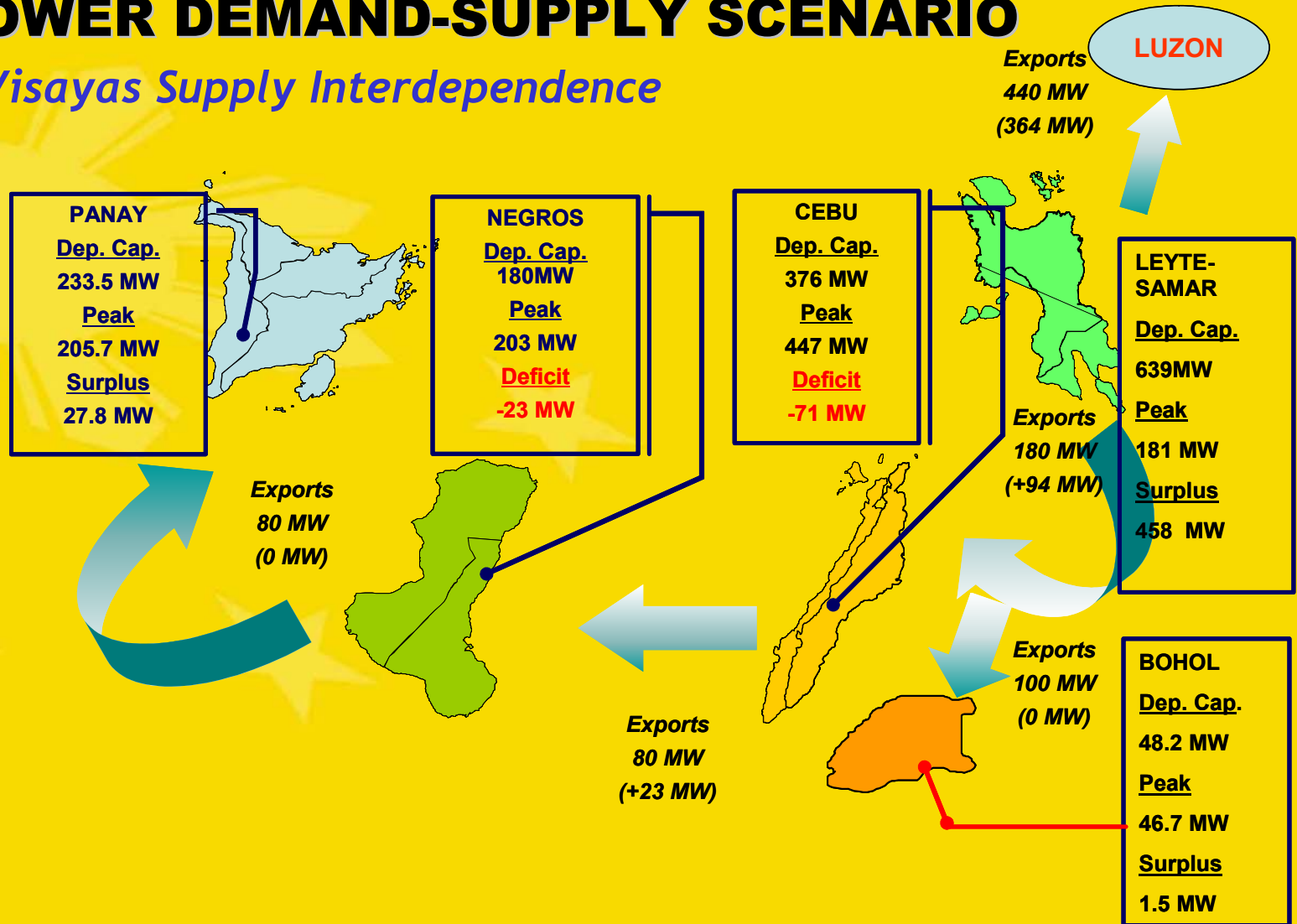


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# POWER DEMAND-SUPPLY SCENARIO

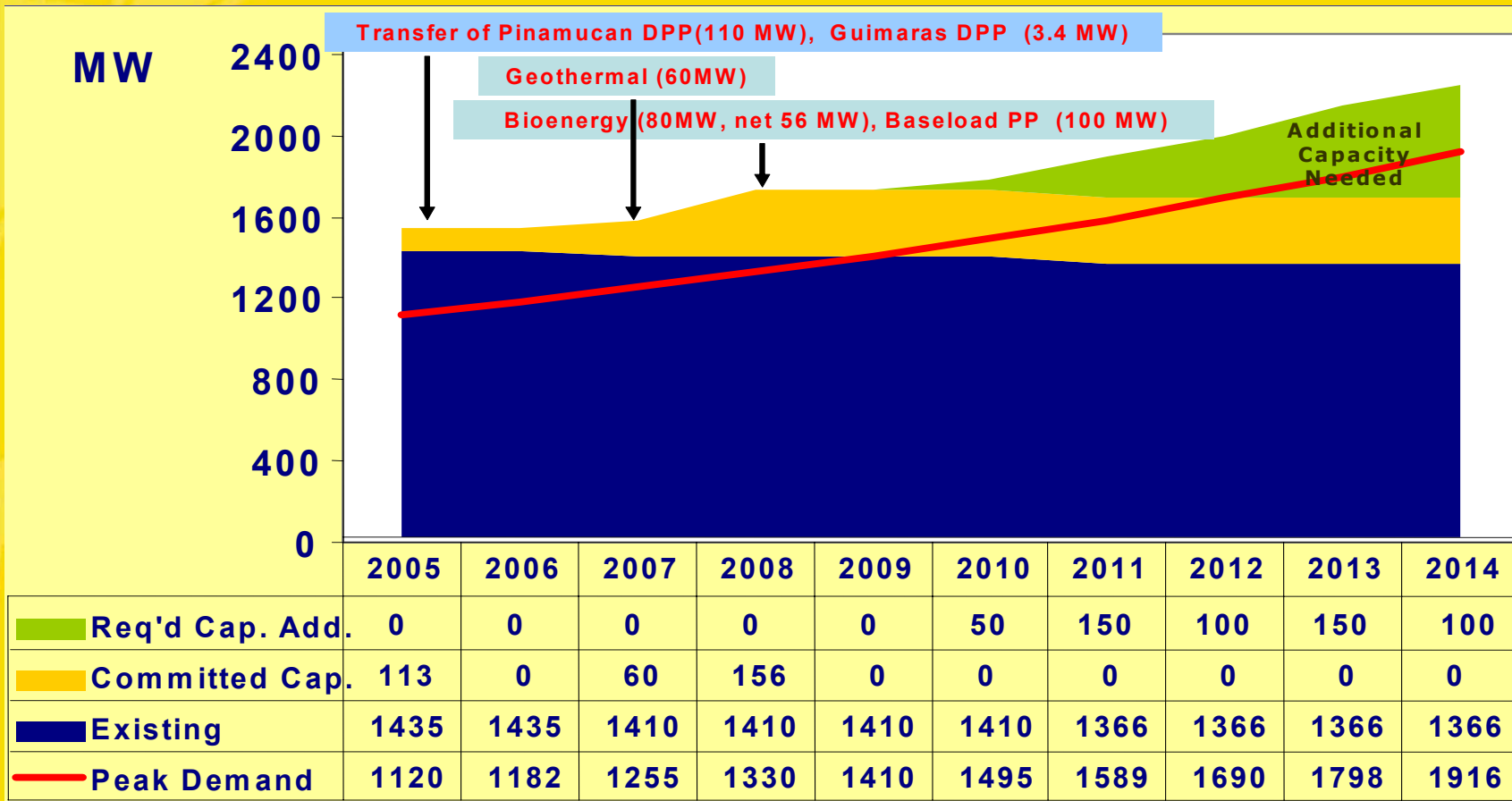
## Visayas Supply Interdependence





# POWER DEMAND-SUPPLY SCENARIO

## Visayas

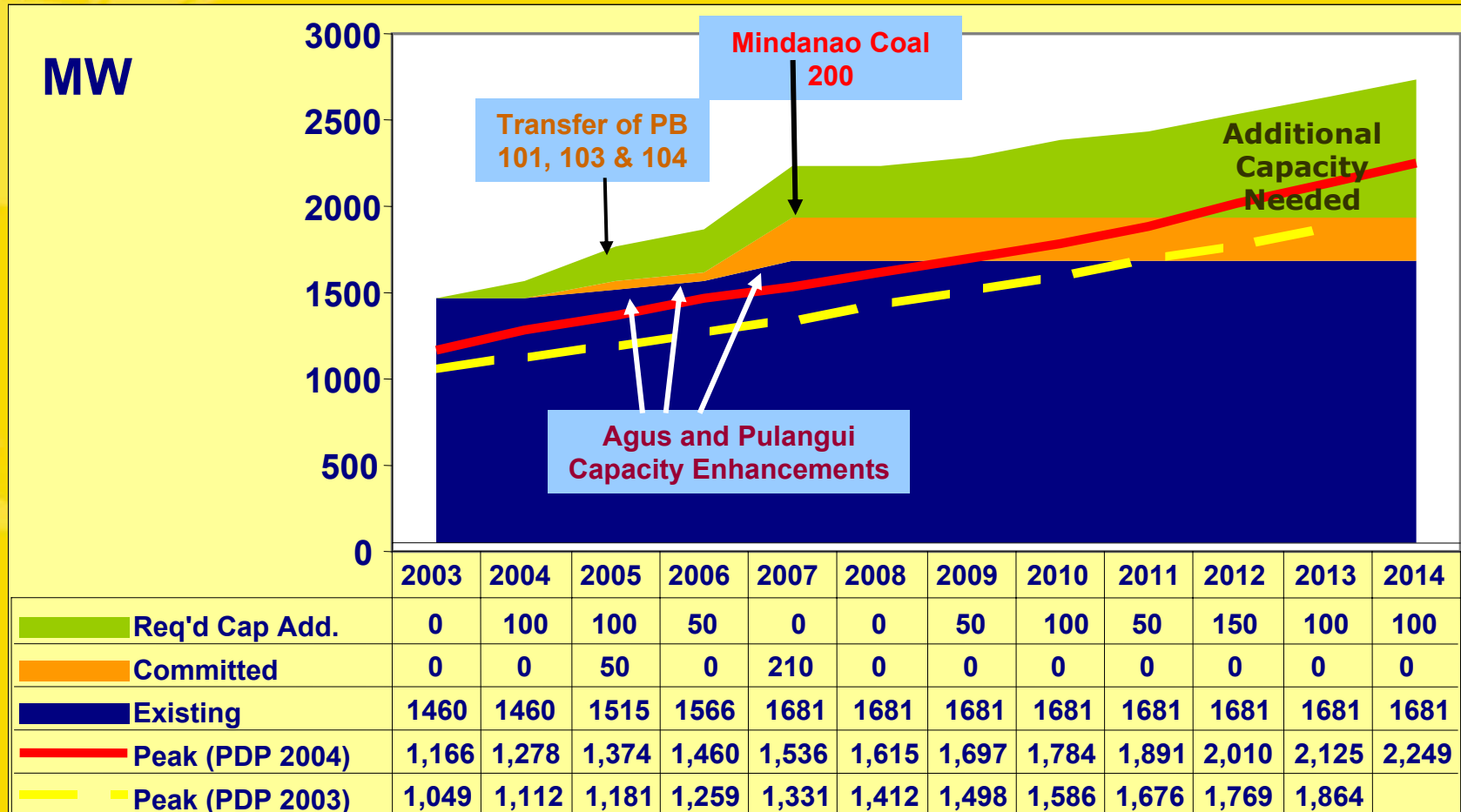






# POWER DEMAND-SUPPLY SCENARIO

## Mindanao



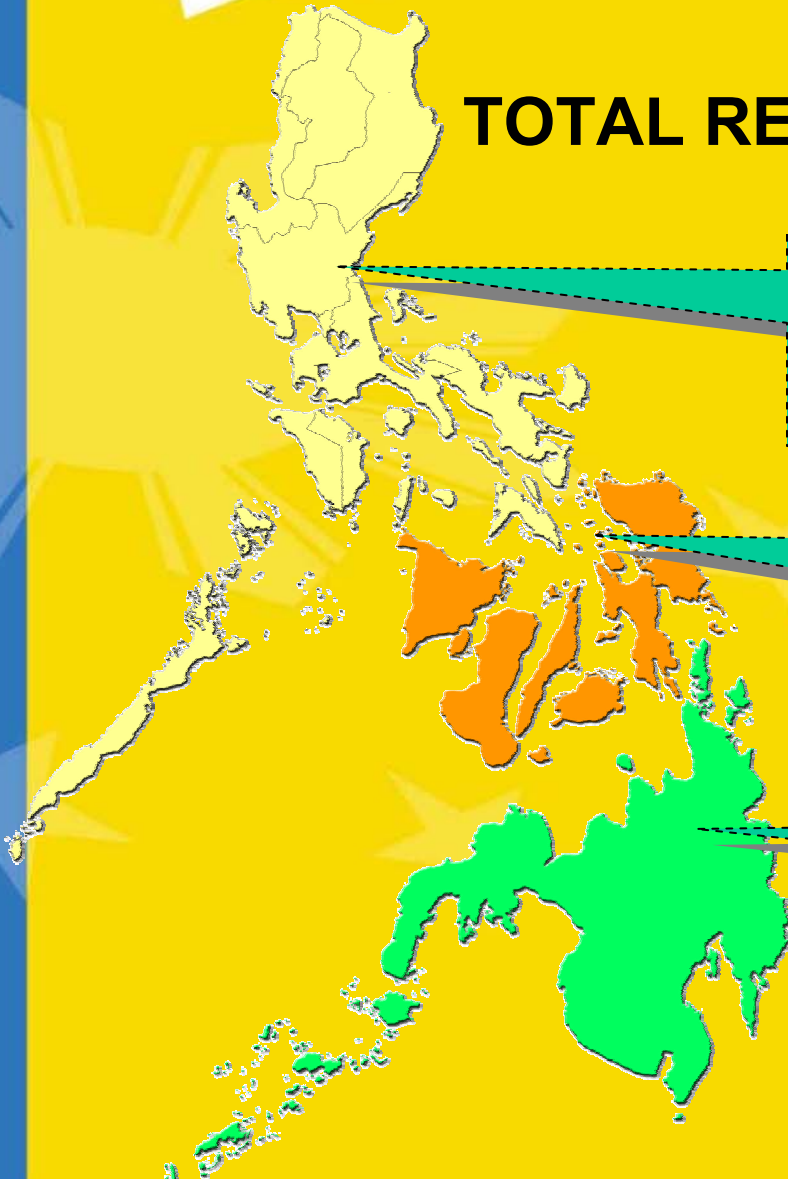


**TOTAL REQUIREMENT : 5,450 MW**

**Luzon**  
**4,050 MW**  
**By 2010 – 2014**

**Visayas**  
**650 MW**  
**2008 – 2014**

**Mindanao**  
**750 MW**  
**2005 – 2014**





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# POWER DEMAND-SUPPLY SCENARIO

## *Per Grid Highlights*

- Luzon to start requiring additional capacity by 2010
  - Wind power to provide 65 MW by 2006
  - Transmission reinforcement projects necessary to address transmission constraints specifically from the supply in South Luzon to the growth areas of Metro Manila
  - Investments are encouraged to provide additional peaking and midrange capacities
- Among the 5 sub-grids in the Visayas, Cebu is projected to start requiring additional capacity by 2009
- Immediate measures must be undertaken for Mindanao
  - 100 MW additional requirement for 2004
  - 50 MW for 2005



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# Other Energy Initiatives



## OTHER ENERGY INITIATIVES

*To be World Leader in Geothermal Energy*

- Active promotion of geothermal exploration through Geothermal Bid Round
  - 10 prospective geo sites with 300 - 510 MW potential capacity
  - Bidding extended to November 2004
  - 3 Japanese, 1 American firms interested to bid





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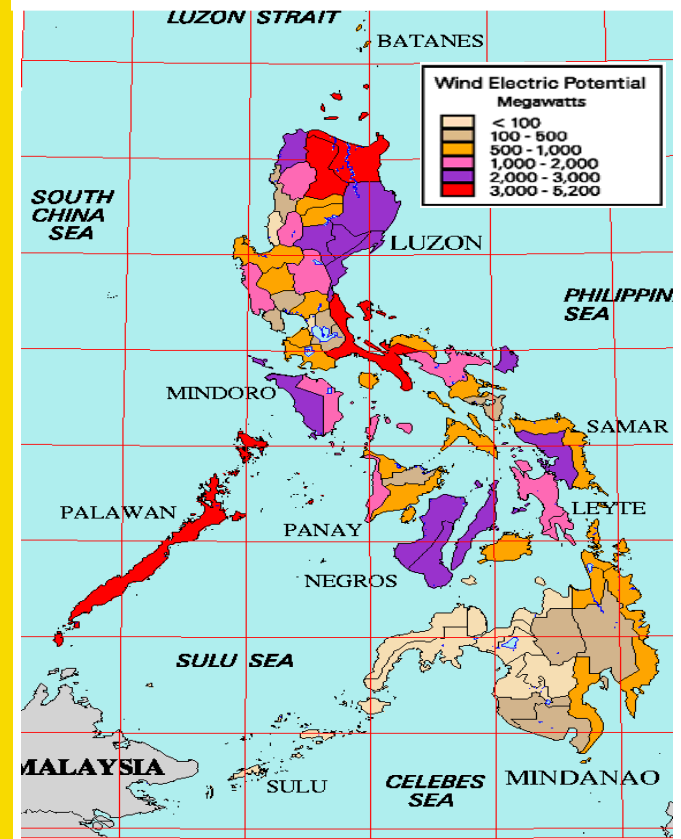


## OTHER ENERGY INITIATIVES

*To be the Largest Wind Power Producer in SEA*

- Launched the first ever wind investment kit for 16 wind power areas with 345 MW potential capacity in June '04
- Groundbreaking of Northwind's 25MW Wind power project in Bangui, Ilocos Norte in April '04
- PNOC-EDC's 40MW wind farm in Ilocos Norte funded by JBIC

**Philippine Wind Energy Potential Map**





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## OTHER ENERGY INITIATIVES

*To Make Natural Gas the Fuel of Choice in Luzon*

- Power Sector
  - Conversion of existing and decommissioned power plants
  - Construction of greenfield power plants
- Infrastructure development
  - BatMan 1 & spur lines by 2007
  - LNG Terminal by 2008
- Transport Sector
  - CNG buses to start plying major routes of Manila to Laguna by 1Q '05
  - 8 local bus operators signed purchase contracts for 160 units of CNG buses from China





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## **OTHER ENERGY INITIATIVES**

*To Promote Alternative Transport Fuels: Hybrid Cars*

- DTI & DOE coordinating to promote assembly & importation of hybrid vehicles



*Toyota Prius: First Hybrid Car in RP*





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## **OTHER ENERGY INITIATIVES**

### *To Promote Alternative Transport Fuels: Coco-Biodiesel*

- Acceleration of the Coco Bio-Diesel Program
  - Memo Circular 55 to utilize coco-based diesel on government vehicles signed in Feb. '04
  - Program officially launched in April '04
  - Commercial utilization in July '04
  - Huge export potential to Japan





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# Moving Forward



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# CHALLENGES IN THE ENERGY SECTOR

## *Moving Forward*

- Continued active private sector participation
  - EPIRA restriction on the government to put up additional generating
  - Government's limited financial resources to finance much needed power infrastructure & facilities
  - Some areas in critical power supply situation
- Creating a conducive environment for investment
  - Market-based environment specifically in the power generation sector
  - Investor interest to participate in the privatization efforts
  - Tariff rate mechanism that would balance interests of the investors and consumers



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# CHALLENGES IN THE ENERGY SECTOR

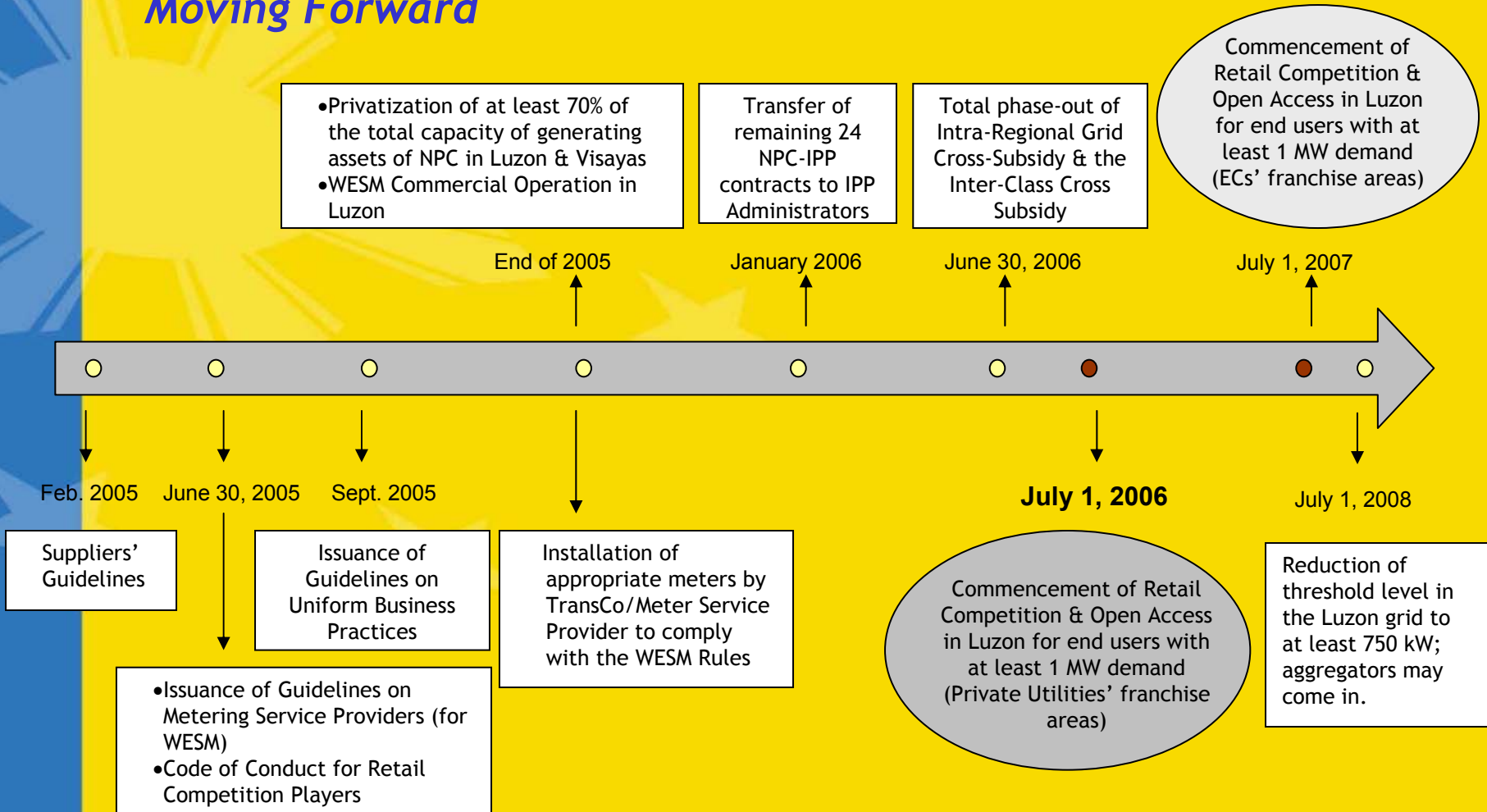
## *Moving Forward*

- Government remains committed to power reforms, despite earlier delays brought about by unforeseen and fortuitous events
- Energy Independence as one of the five major reform agenda of the President



# POWER REFORMS WELL UNDERWAY

## Moving Forward





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***Thank you!***

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