



# **Power Supply and Demand Situationer and Power Sector Reforms Update**

**Undersecretary Melinda L. Ocampo**

**A Presentation to:**

**Energy Investment Forum 2007**

**December 19, 2007**

**1:00 – 5:00 P.M.**

**Renaissance Hotel – Makati**



# OUTLINE

**I. Power Supply and Demand Situation**

**II. Power Sector Reforms Update**



# Power Generation and Transmission

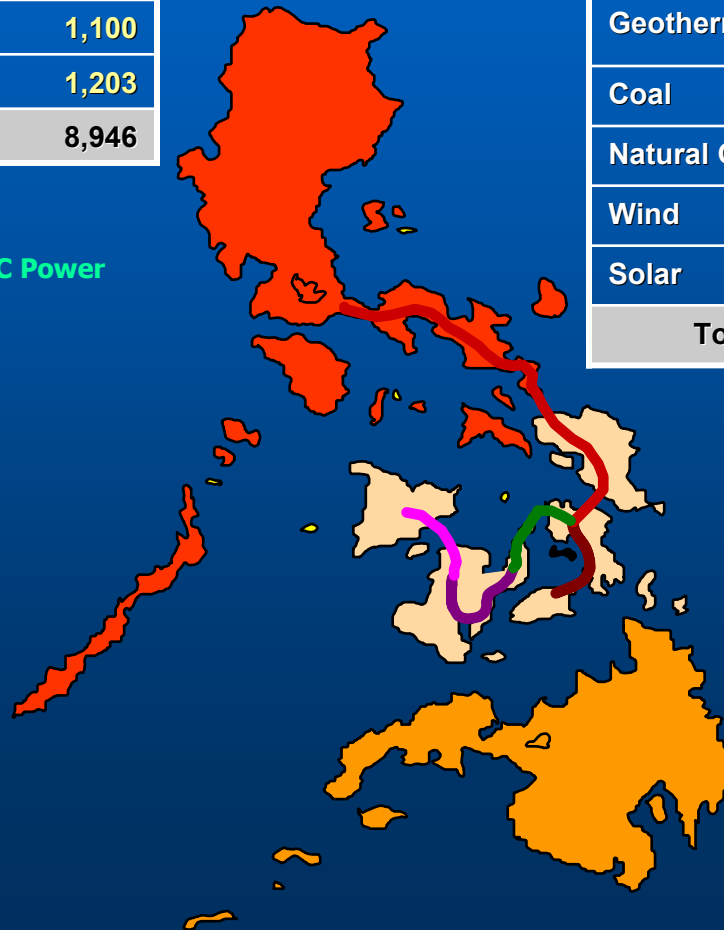
*as of November 2007*

GRID	Installed Capacity (MW)	Dependable Capacity (MW)	Peak Demand (MW)
Luzon	12,174	10,311	6,643
Visayas	1,833	1,498	1,100
Mindanao	1,933	1,671	1,203
<b>Total</b>	<b>15,941</b>	<b>13,479</b>	<b>8,946</b>

**Note:**

Installed Capacity for NPC/NPC-IPP as per NPC Power Economics Dept. data.

PLANT TYPE	Installed (MW)	% Share
Oil-based	3,616	23
Hydro	3,293	21
Geothermal	1,958	12
Coal	4,213	26
Natural Gas	2,834	18
Wind	25	0.16
Solar	1	0.01
<b>Total</b>	<b>15,941</b>	<b>100</b>



Interconnection

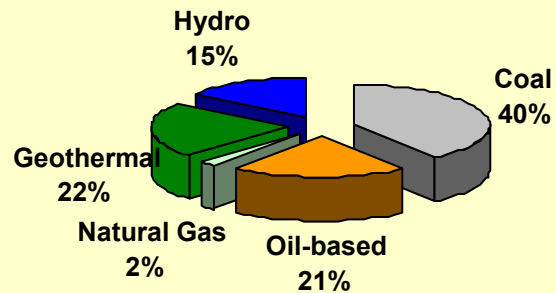
- Leyte-Luzon (440 MW)
- Leyte-Cebu (400 MW)
- Cebu-Negros (100 MW)
- Negros – Panay (100 MW)
- Leyte-Bohol (100 MW)



# POWER GENERATION MIX, PHILIPPINES

*Moving Towards Less Utilization of High Price Oil-Based Plants*

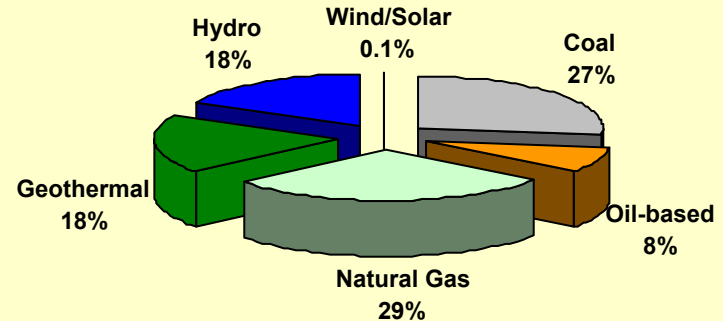
Self-Sufficiency level = 41%



Total Generation = 47,040 GWh

**Power Generation Mix 2001**

Self-Sufficiency level = 66%



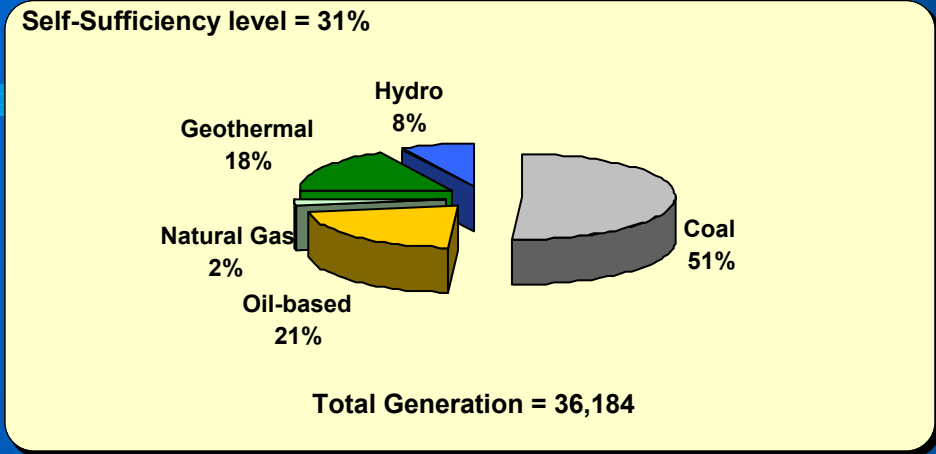
Total Generation = 56,784 GWh

**Power Generation Mix 2006**

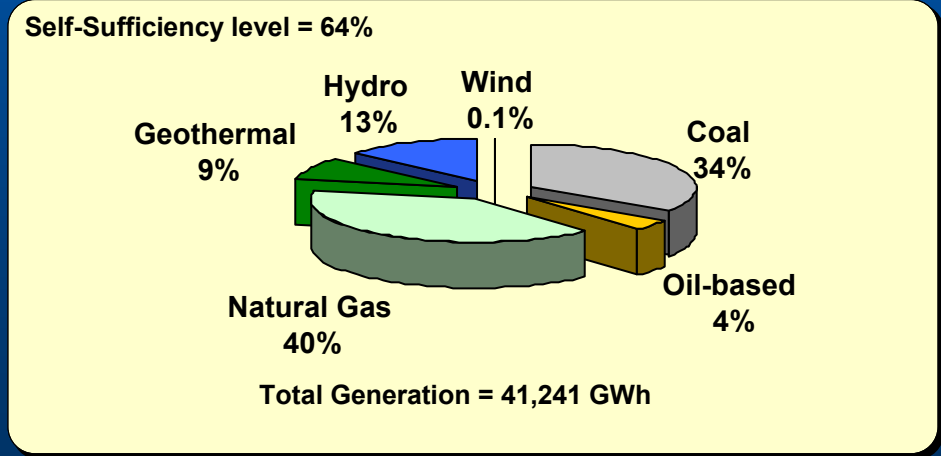


# Power Generation Mix, Luzon

*Moving Towards Less Utilization of High Price Oil-Based Plants*



Power Generation Mix 2001



Power Generation Mix 2006



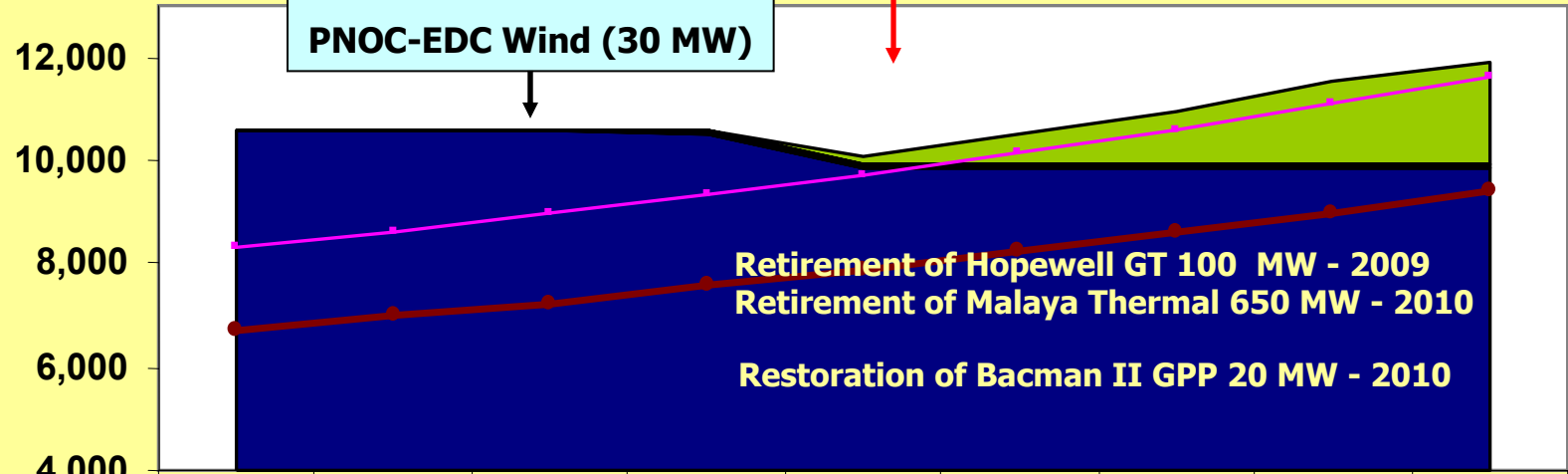
# Supply Demand Profile

## Luzon, 2006 - 2014

**Critical Period 2010**

Northwind (8.25 MW)  
PNOC-EDC Wind (30 MW)

**MW**



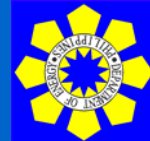
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Indicative					150	450	450	600	300
Committed			38.3						
Dep. Capacity	10,576	10,576	10,576	10,476	9,846	9,846	9,846	9,846	9,846
Required Capacity	8,302	8,614	8,949	9,319	9,721	10,150	10,607	11,093	11,596
Peak Demand	6,728	6,981	7,252	7,552	7,878	8,225	8,596	8,990	9,397

**Note: Required Capacity refers to the peak demand plus the ERC-approved reserve margin above the peak demand of 23.4 % (2.8% Load Following and Frequency Regulation, 10.3% Spinning Reserve, 10.3% Back-Up)**

# Indicative Projects

## Encourage Private Sector Investments

1/7/2008 3:12 PM



### LUZON

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
Burgos Wind Power Project Phase I (formerly North Luzon Wind Power Project Phase I)	Ilocos Norte	40	PNOC-EDC	2009
Ilijan CCGT expansion	Batangas City	300	Kepeco Ilijan	2009
Burgos Wind Power Project Phase II	Ilocos Norte	46	PNOC-EDC	2010
2nd phase CFB Coal-Fired Power Plant	Pampanga	50	Asia Pacific Energy Corporation	2010
4 x 150MW Coal Fired Power	Subic	300	Redondo Peninsula Energy Inc.	2010

# Indicative Projects

*Encourage Private Sector Investments*

1/7/2008 3:12 PM



## LUZON

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
San Gabriel Power Plant	Batangas City	550	First Gen Holdings Corp and BG Consolidated Corp.	2011
Kalayaan Pumped Storage Power Plant III (CBK Expansion)	Laguna	360	J Power and Sumitomo Corp.	2011
Tanawon Geothermal Project	Sorsogon	40	PNOC-EDC	2011
Rangas Geothermal Project	Sorsogon	40	PNOC-EDC	2013
Manito-Kayabon Geothermal Project	Sorsogon	40	PNOC-EDC	2013
Balintingon River Mutli-purpose Project	Nueva Ecija	44	CalEnergy International Ltd.	2013

# Indicative Projects

*Encourage Private Sector Investments*

1/7/2008 3:12 PM



## LUZON

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
Northwind Pamplona Project	Cagayan Valley	30	Northwind Power	2015
Pagbilao Expansion	Quezon Province	400	Team Energy	
Pantabangan Expansion	Nueva Ecija	78	First Gen Hydro Power Corp.	
2x150MW CCGT Power Station	Quezon Province	300	Energy World International Ltd	
Quezon Power Expansion Project	Quezon Province	500	Quezon Power Phils.	

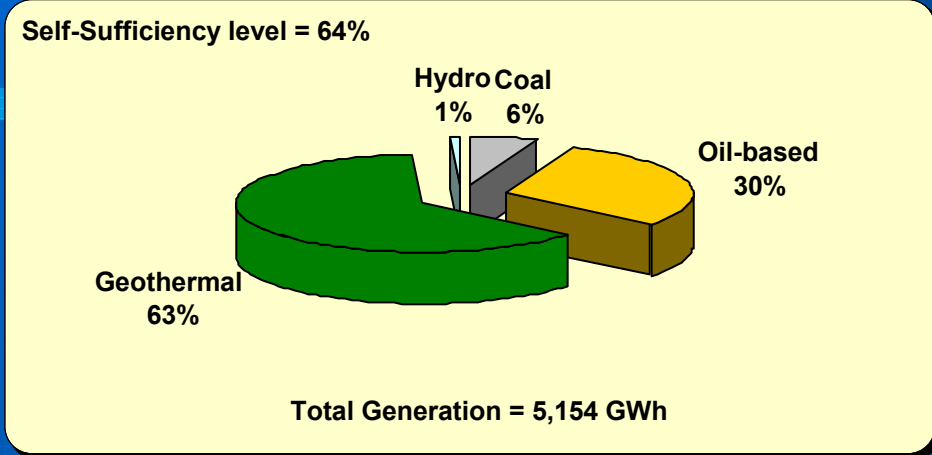
Note: Target date of completion not yet available.

Total Indicative Rated Capacity = 3,118 MW

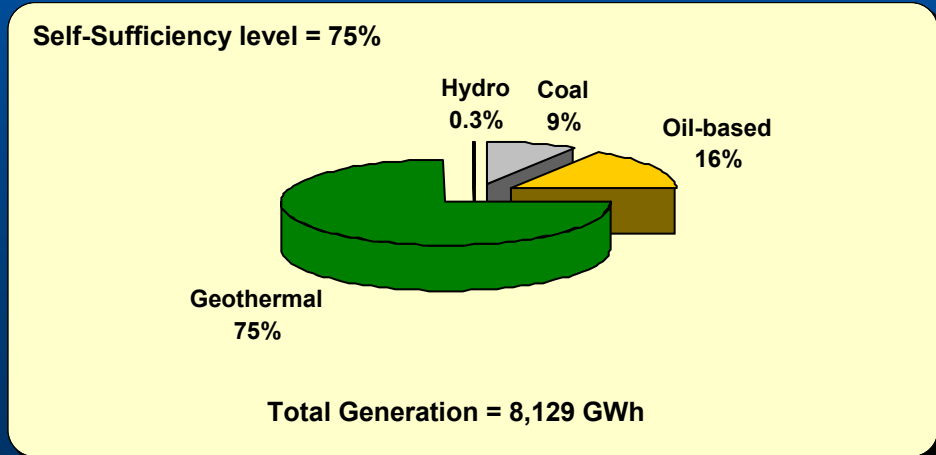


# Power Generation Mix, Visayas

*Moving Towards Less Utilization of High Price Oil-Based Plants*



Power Generation Mix 2001

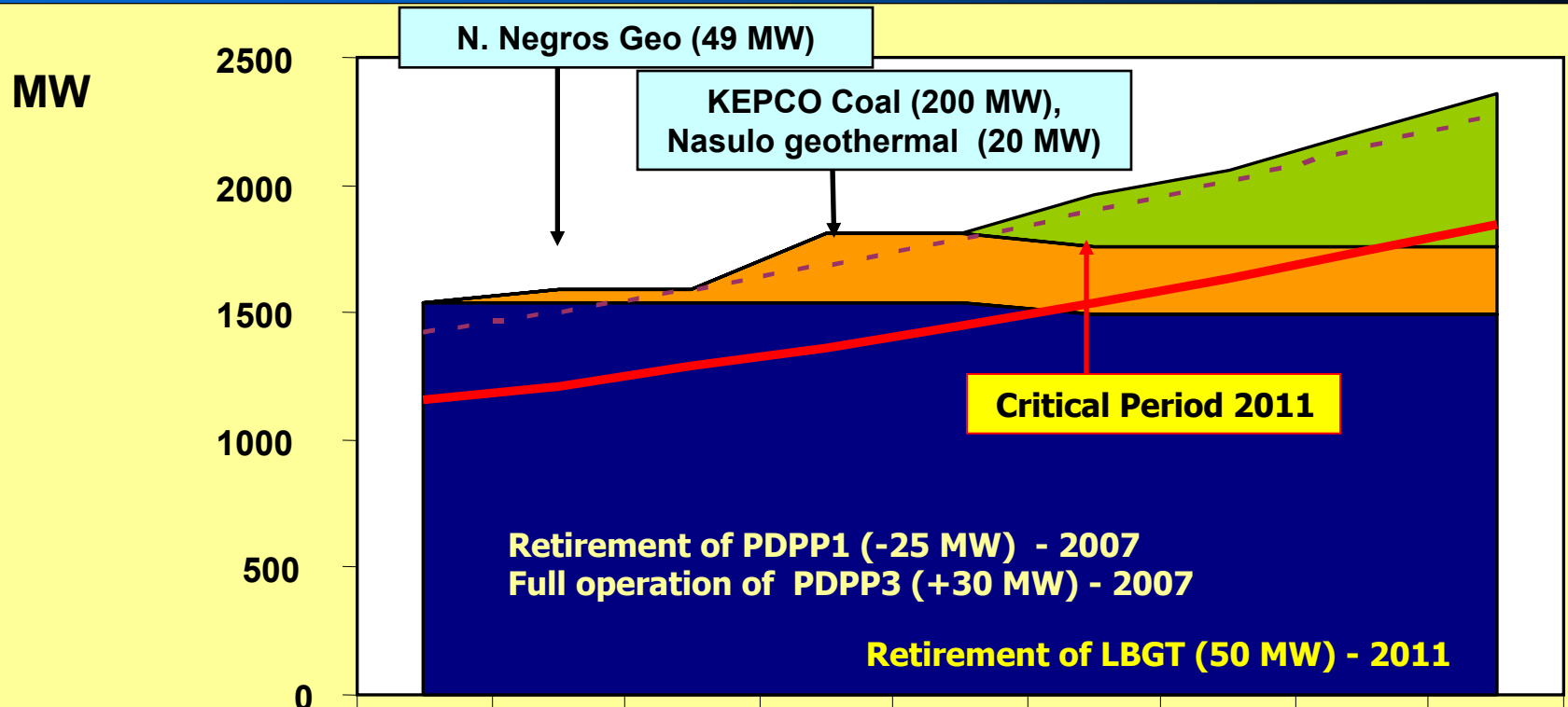


Power Generation Mix 2006

# Supply Demand Profile

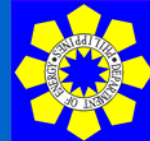
Visayas, 2006 - 2014

1/7/2008 3:12 PM



	2006	2007	2008	2009	2010	2011	2012	2013	2014
Indicative	-	-	-	-	-	200	100	150	150
Committed	-	49		220					
Dependable Capacity	1,536	1,541	1,590	1,590	1,810	1,760	1,760	1,760	1,760
Required Capacity	1,424	1,498	1,591	1,683	1,787	1,895	2,014	2,143	2,283
Peak Demand	1,154	1,214	1,289	1,364	1,448	1,536	1,632	1,737	1,850

**Note: Required Capacity refers to the peak demand plus the ERC-approved reserve margin above the peak demand of 23.4% (2.8% Load Following and Frequency Regulation, 10.3% Spinning Reserve, 10.3% Back-Up)**



# Indicative Projects

*Encourage Private Sector Investments*

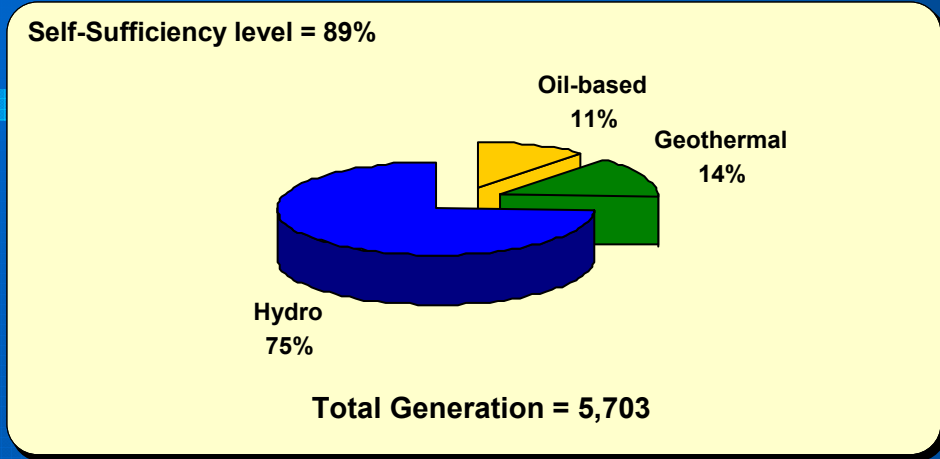
## VISAYAS

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
Coal-Fired Plant	Iloilo, Panay Island	100	DMCI Energy Resources Ltd.	2010
Toledo Expansion Project	Cebu	246 Phase I - ( 2 x 82) Phase II - (1 x 82)	Global Business Power Corp	Phase I - 2010 Phase II - 2011
GBPC Coal-Fired Plant	Iloilo, Panay Island	164 (2x82)	Global Business Power Corp	2011
Dauin Geothermal	Negros Oriental	40	PNOC-EDC	2011
Aklan Hydropower Project	Aklan	41	CalEnergy International, Ltd.	2012
Villasiga HEP	Antique	16.5	PNOC-Private Sector Joint Venture	2013
Southern Leyte Geothermal Project (formerly Cabalian Geothermal Project)	Southern Leyte	80	PNOC-EDC	2015

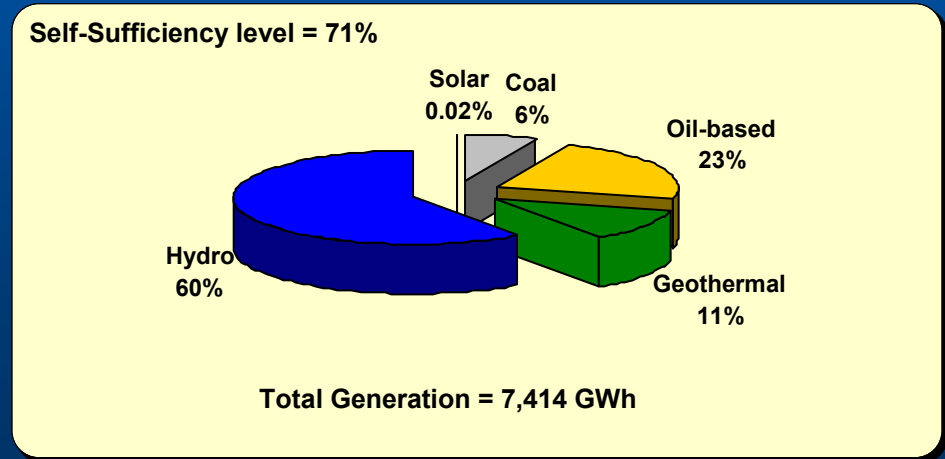
**Total Indicative Rated Capacity = 687.5 MW**



# Power Generation Mix, Mindanao



Power Generation Mix 2001



Power Generation Mix 2006

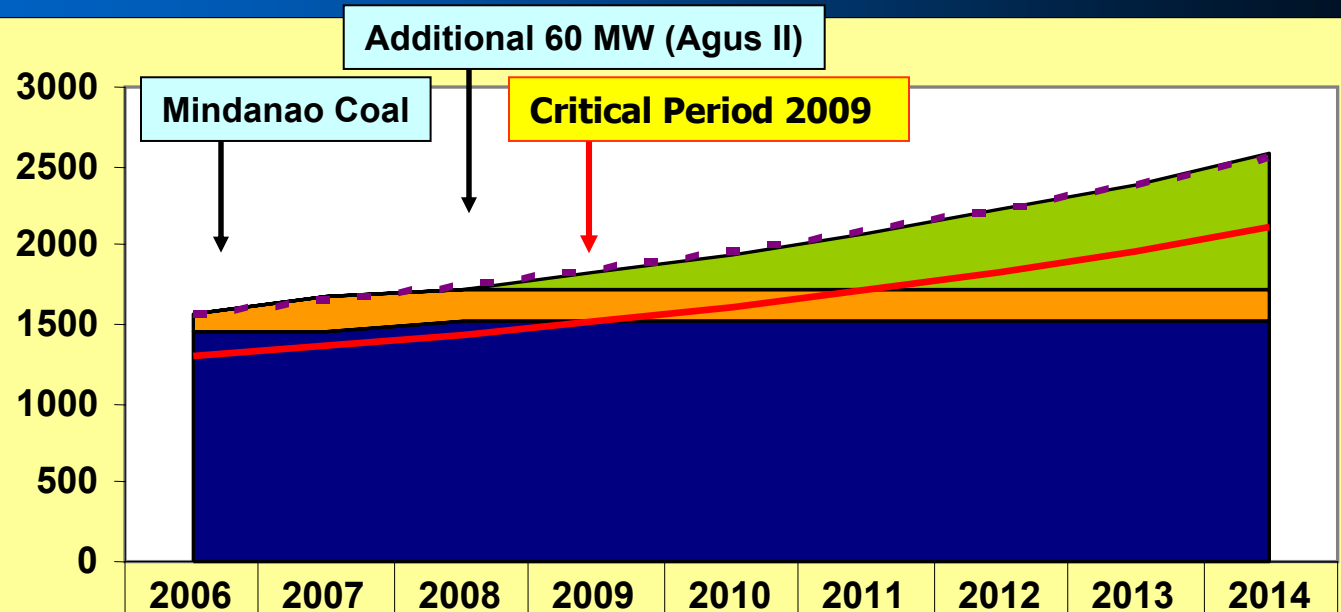
# Supply Demand Profile

Mindanao, 2006 - 2014

1/7/2008 3:12 PM



MW



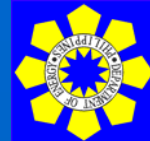
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Indicative				100	100	150	150	150	200
Committed	210								
Dependable Capacity	1455	1460	1520	1520	1520	1520	1520	1520	1520
Required Capacity	1565	1649	1742	1845	1960	2087	2228	2382	2556
Peak Demand	1293	1363	1440	1525	1620	1725	1841	1969	2112

**Note:** Required Capacity refers to the peak demand plus the ERC-approved reserve margin above the peak demand of 21.0 (2.8% Load Following and Frequency Regulation, 9.1% Spinning Reserve, 9.1% Back-Up)

# Indicative Projects

*Encourage Private Sector Investments*

1/7/2008 3:12 PM



## MINDANAO

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
Cabulig Hydro	Misamis Oriental	8	CEPALCO	2010
Tamugan AB, Panigan and Suawan Hydroelectric Power	Davao City	34.5	Hedcor Tamugan, Inc.	2010
Agus 3 Hydroelectric Plant	Lanao del Norte	225	Lanao Hydropower Development Corporation	2011
SM 200 MW CFBB CFTPP	Southern Mindanao	200	Conal Holdings Corp.	2011
Sultan Kudarat Coal	Sultan Kudarat	200	MG Mining & Energy Corp	2012
Tagoloan Hydropower	Bukidnon	68	Luzon Hydro Corp.	2012

**Total Indicative Rated Capacity = 735.5 MW**

# Committed Projects

1/7/2008 3:12 PM



## LUZON

Name of the Project	Location	Rated Capacity (MW)	Proponent	Target Completion
Northwind Power Project, Phase 2	Ilocos Norte	8.25	Northwind Power Development Corporation	2008
Coal-Fired Power Plant	Bataan	600	GN Power	2011

## VISAYAS

Cebu Coal Fired Power Plant, Phils (formerly KEPCO Coal-Fired Power Plant)	Cebu	200	Salcon Power	2010
Nasulo Geothermal	Negros Oriental	20	PNOC-EDC	2010

## MINDANAO

Sibulan Hydroelectric Power	Davao del Sur	42.5	Hedcor Sibulan, Inc.	2009
Mindanao 3 Geothermal	North Cotabato	50	PNOC-EDC	2010

Total Committed Rated Capacity = 920.75 MW



# Power Sector Reforms Update

- **Genco Privatization**
  - *Achieved 43% of generating capacity in Luzon and Visayas*
  - *Working towards 70% by end 2008*
- **TransCo Privatization through Concessionaire**
  - *Successfully bidded out last Dec. 12, 2007*
- **Accelerated activities to appoint IPP Administrators**
  - *Target tendering by 1<sup>st</sup> Quarter 2007*
- **Preparatory activities for the WESM commercial operation in Visayas**



# Power Sector Reforms Update

- **PNOC-EDC Privatization**
  - *Completed sale of the remaining 40% government share (November 21, 2007)*
- **Private Sector Participation in SPUG areas**
  - *Conducted SPUG Privatization Summit to accelerate privatization of the 14 First Wave Areas (December 7, 2007)*
- **Achieved 95.8 % barangay electrification as of 3<sup>rd</sup> Quarter 2007**



# THANK YOU

**A Presentation By:**

**Undersecretary Melinda L. Ocampo**

**December 19, 2007**

**1:00 – 5:00 P.M.**

**Renaissance Hotel - Makati**