The Philippine Energy Sector

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Outline of Presentation

- ***Energy Resource Development Sector***
  - *Oil and Natural Gas*
  - *Coal*
- ***Downstream Oil Sector***
- ***Fuelling Sustainable Transportation Program***
- ***Renewable Energy Sector***
- ***Power Development Sector***
- ***Energy Reform Agenda***

Oil and Natural Gas

Resource Development

Oil and Natural Gas

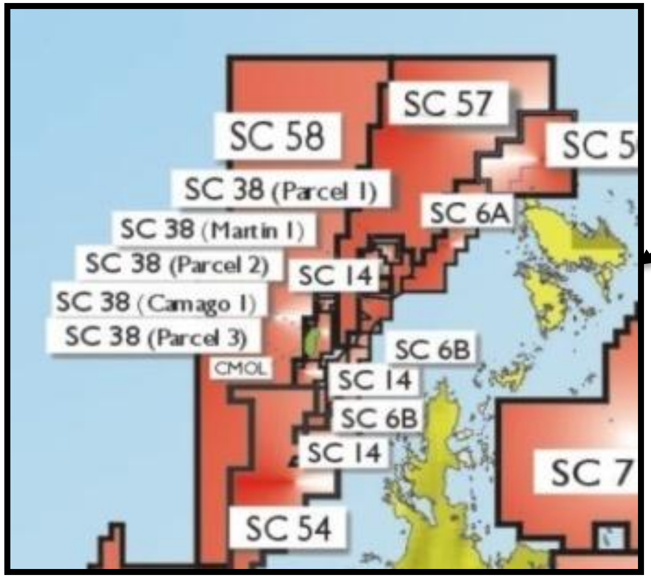
	Unit	Production			No. of Contracts Supervised/ Monitored
		2010	1st Sem 2011	2011	
Oil	MMB	3.1	1.3	2.7	28
Gas	BCF	130	72.4	144.8	

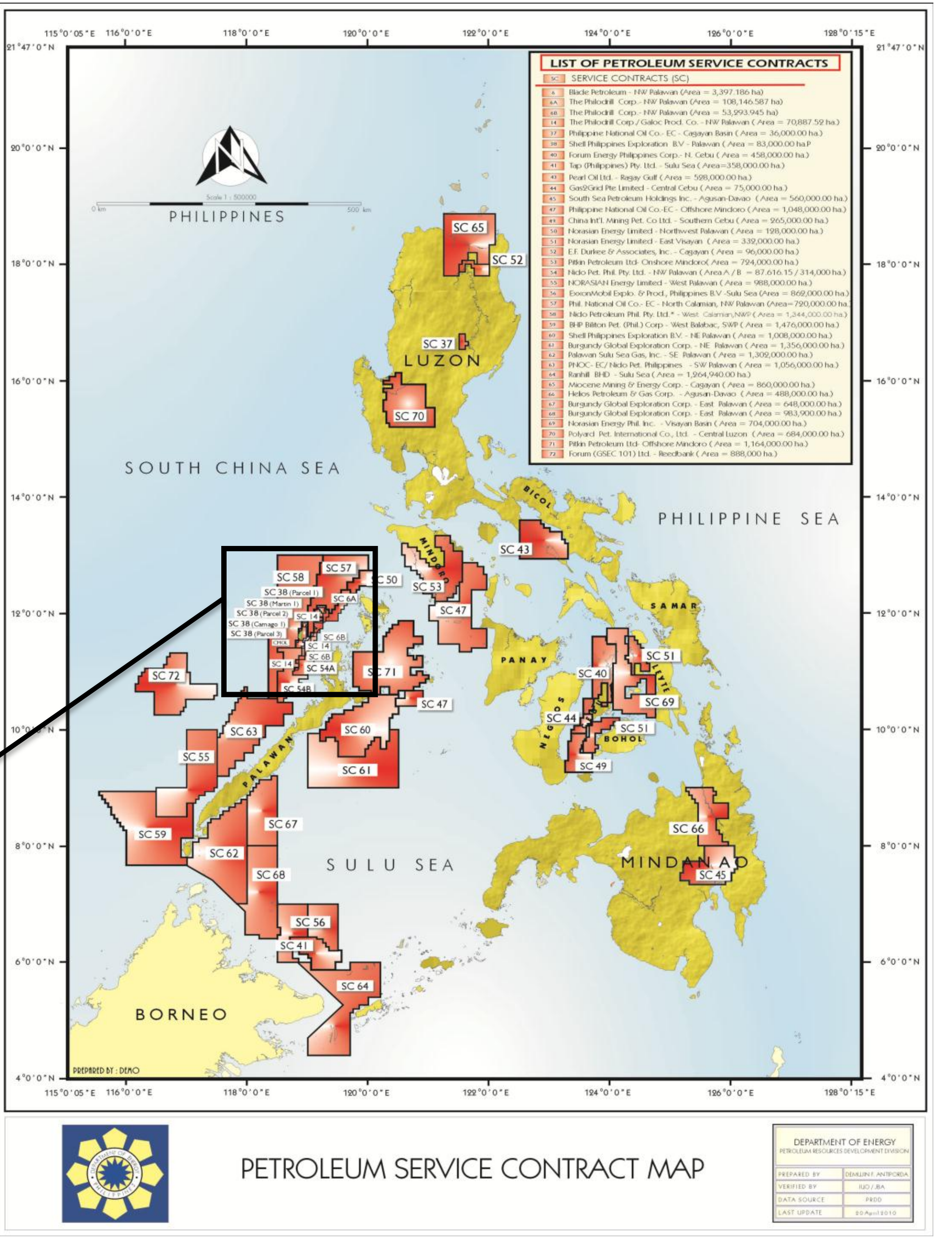
Note:

1) MMB – Million Barrels
BCF – Billion Cubic Feet

Resource Development

Oil and Natural Gas

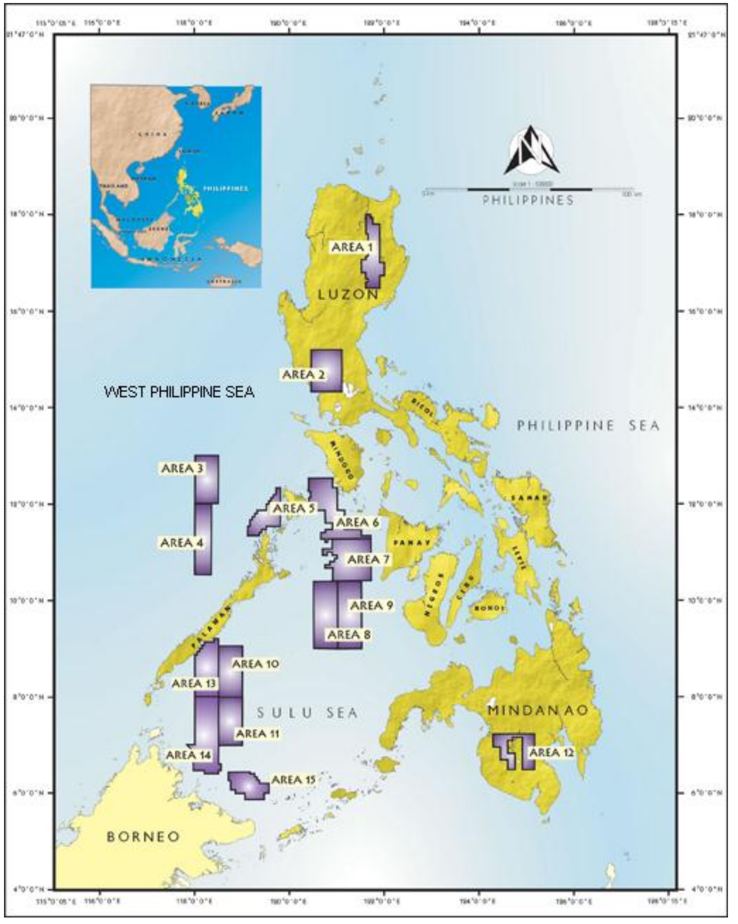




Enhanced indigenous energy development

Fossil Fuels

Launched the Philippine Energy Contracting Round (PECR) 4 on 30 June 2011

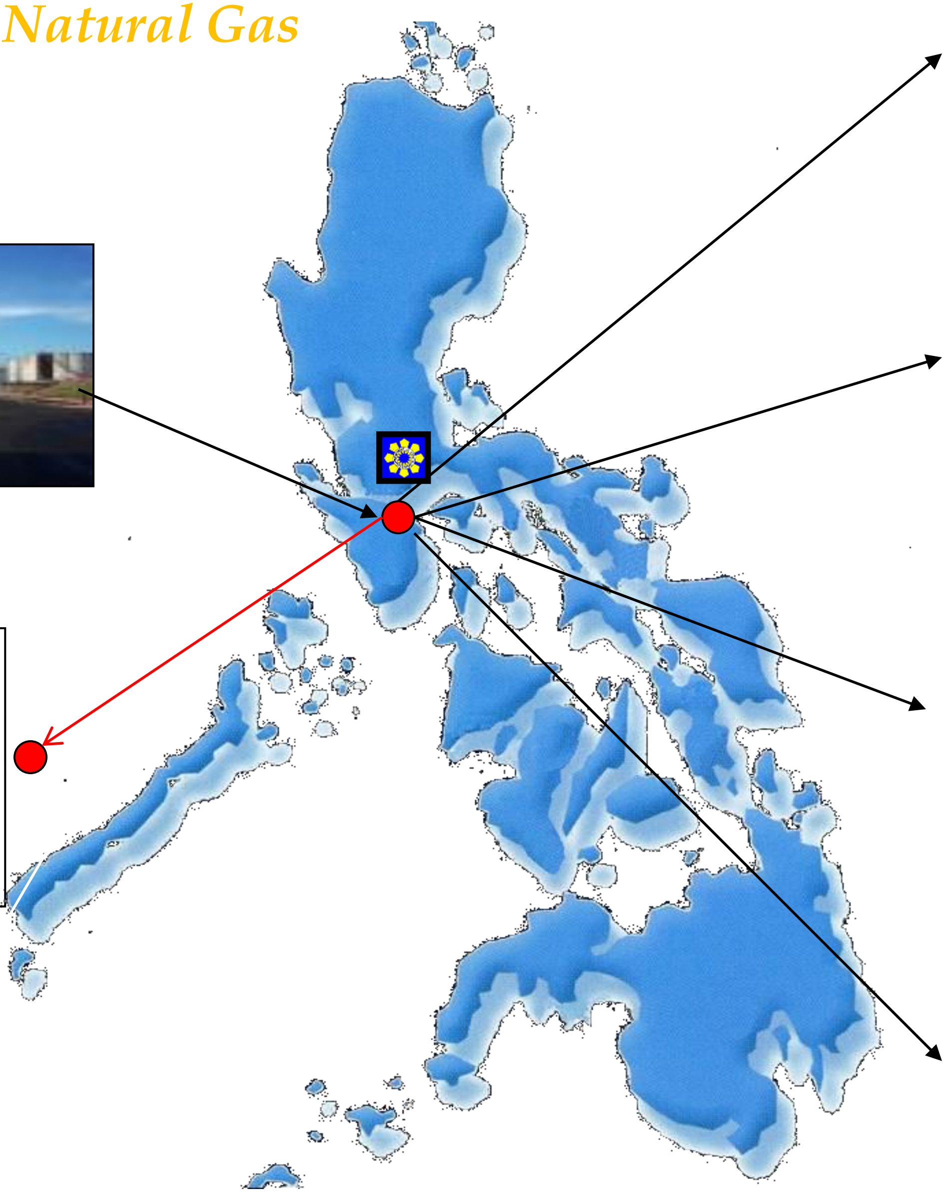


Resource Development

Downstream Natural Gas

Shell Refinery

Malampaya Gas Field
2.7 TCF (2001)



560 MW San Lorenzo
First Gen/ IPP

1,000 MW Sta. Rita
First Gen/ IPP

1,200 MW Ilijan Power Plant
NPC IPP(KEPCO)

CNG Bus (2008)

Resource Development

Downstream Natural Gas

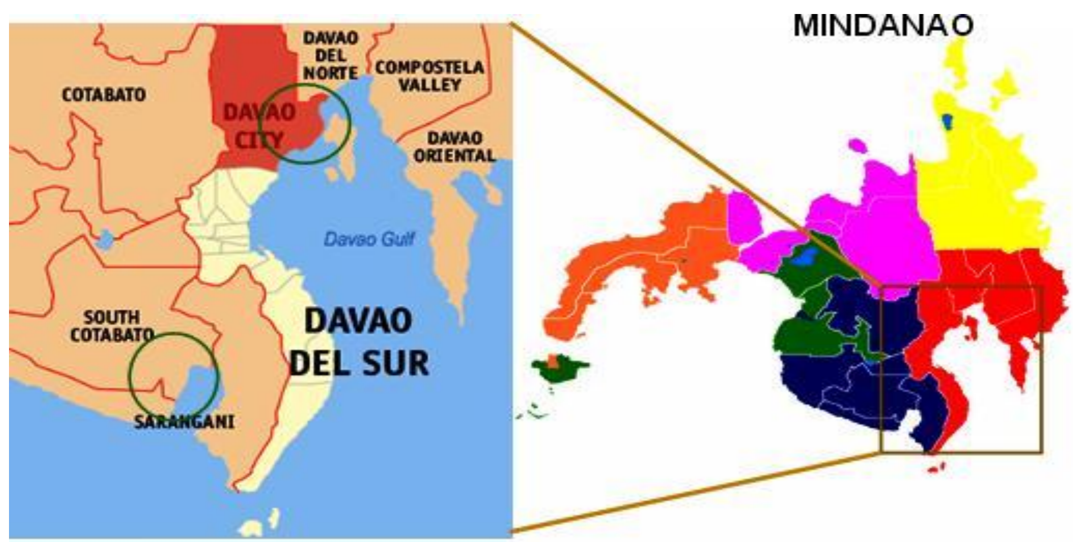
(in MMSCF)	2009	2010
Production	138,030	130,008
Consumption	128,095	119,869
Power	125,058	116,809
Industry	3,019	3,044
Transport	18	16

Ensured Sufficient Supply

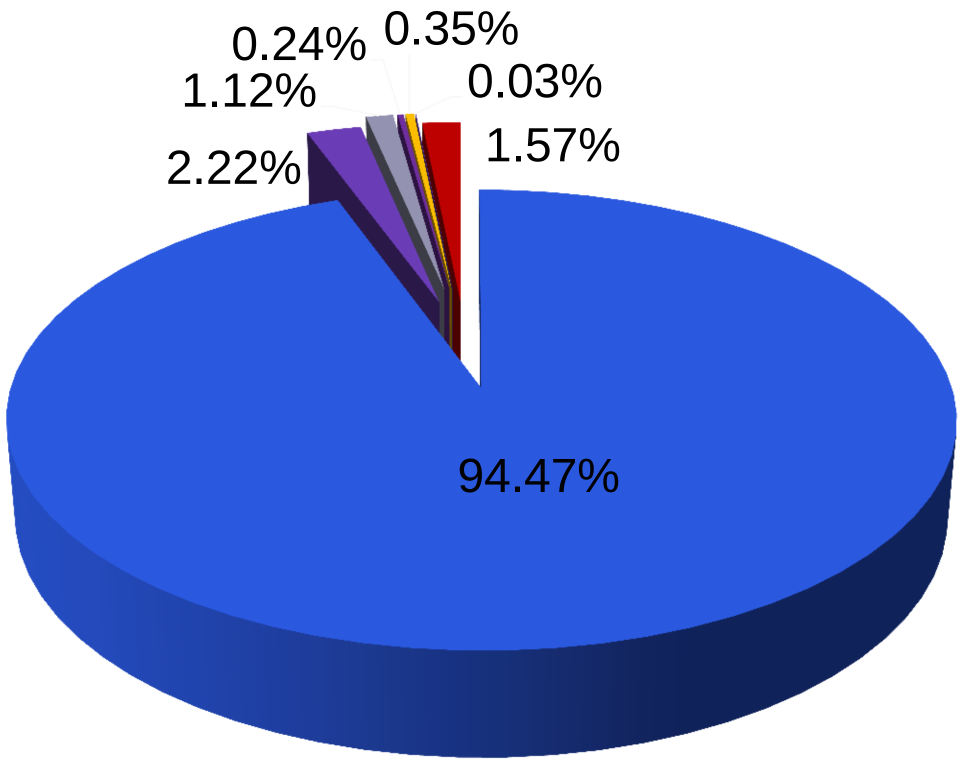
Natural Gas

- Engaged JICA for the Updating and Expansion of the Master Plan Study for the Development of the Natural Gas Industry in the Philippines

- Engaged the World Bank for the conduct of feasibility study for LNG in Mindanao

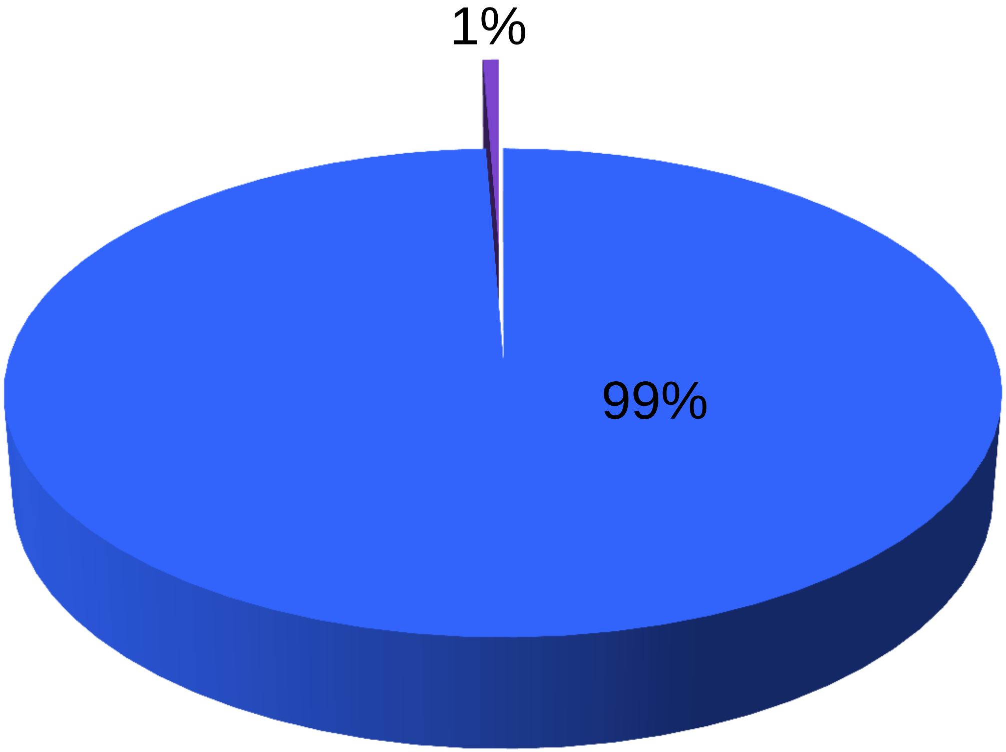


2011 Coal Production
(Run-of-Mine)



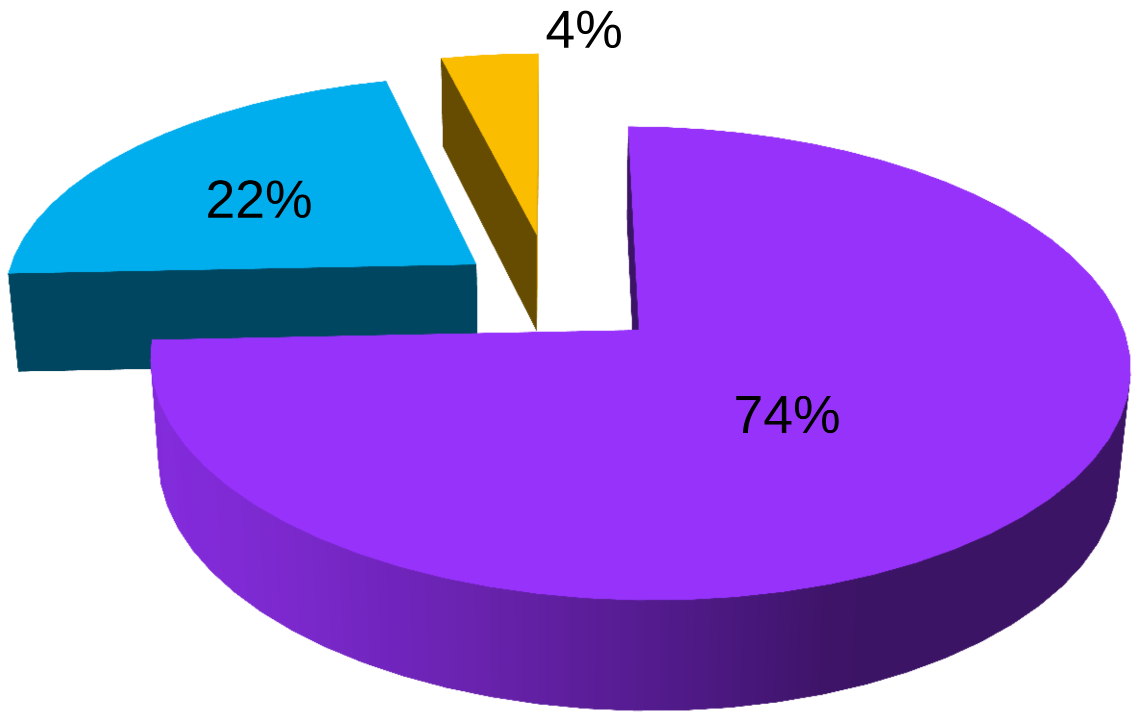
SEMIRARA ISLAND, ANTIQUE	7,190,363 MT
ZAMBOANGA SIBUGAY	168,951
CEBU	85,063
BATAN ISLAND, ALBAY	18,395
SURIGAO	26,980
NEGROS	2,060
SSCM	119,521
Total	**7,611,333 MT**

2011 COAL IMPORTATION
(Run-of-Mine)



INDONESIA	10,894,333 MT
VIETNAM	68,169
TOTAL	10,962,502 MT

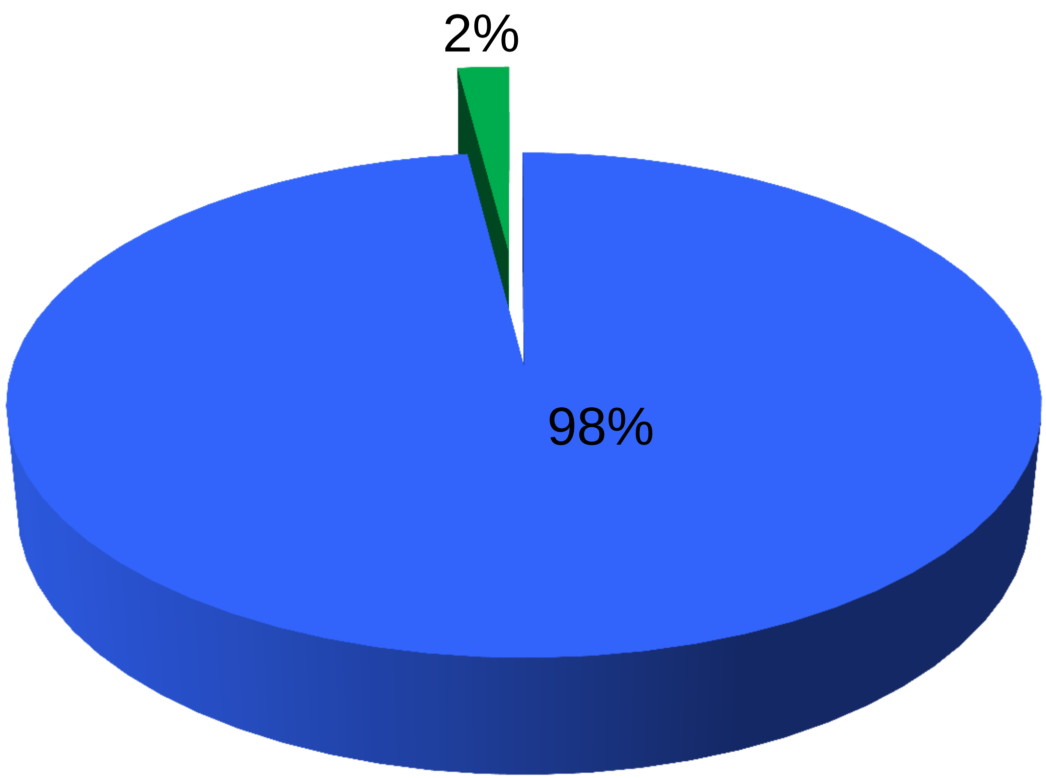
2011 COAL CONSUMPTION
(10,000 BTU/lb)



POWER	10,580,400 MT
CEMENT	3,103,003
IND'L/DIRECT PROCESS	550,838
TOTAL	14,234,242 MT

2011 SEMIRARA MINING CORPORATION COAL EXPORT

(Run-of-Mine)

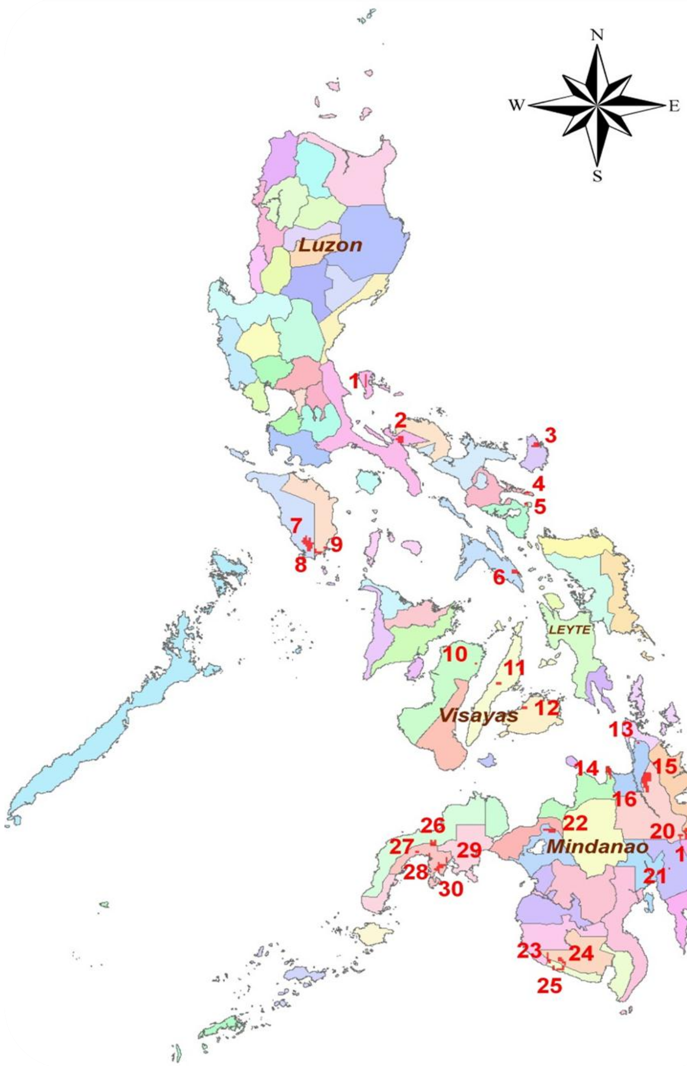


CHINA	2,681,611
THAILAND	54,754
TOTAL	2,736,365

Enhanced indigenous energy development

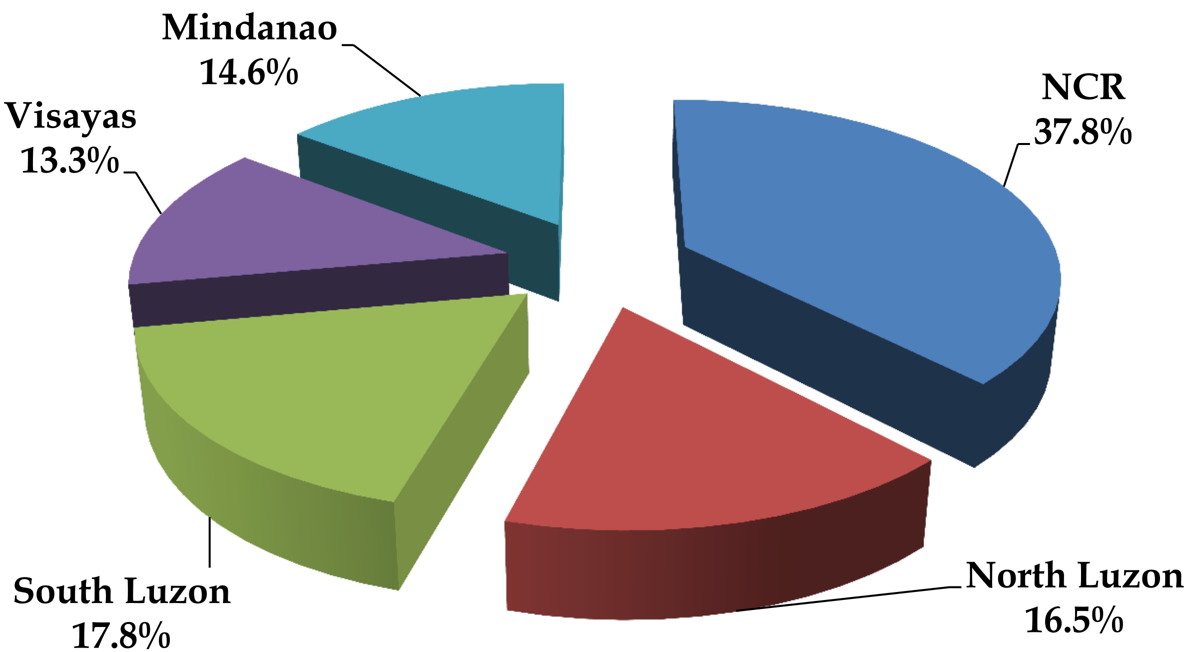
- Launched the 4th Philippine Energy Contracting Round (PECR4) for Coal on 01 December 2011

- 30 Coal Areas on Offer



Downstream Oil Industry

2010 Oil Consumption



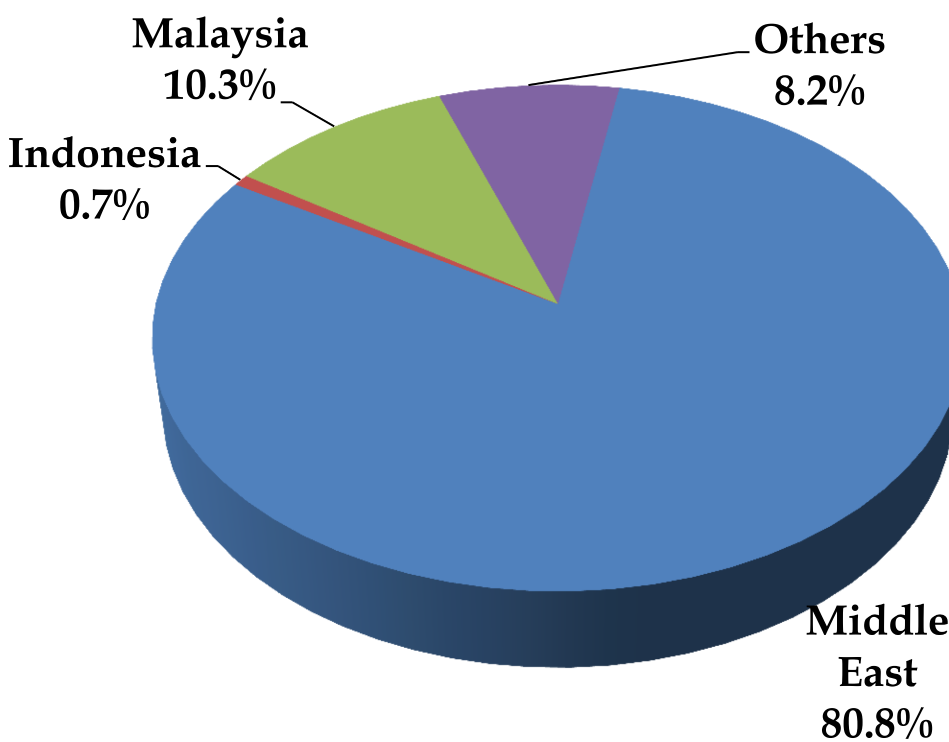
	In Thousand Barrels (MB)
NCR	42,295
North Luzon	18,411
South Luzon	19,957
Visayas	14,858
Mindanao	16,328

Oil Importation and Refinery Production

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Oil Importation (MMB)										
Crude Oil	111.45	93.87	91.30	73.06	77.63	78.09	74.18	69.06	50.56	67.2
Petroleum Products	24.43	34.39	37.04	52.95	41.07	41.04	45.71	48.30	57.82	54.1
Refinery Production (MMB)	114.48	94.43	92.53	73.36	79.25	77.16	75.07	67.17	53.70	60.3*

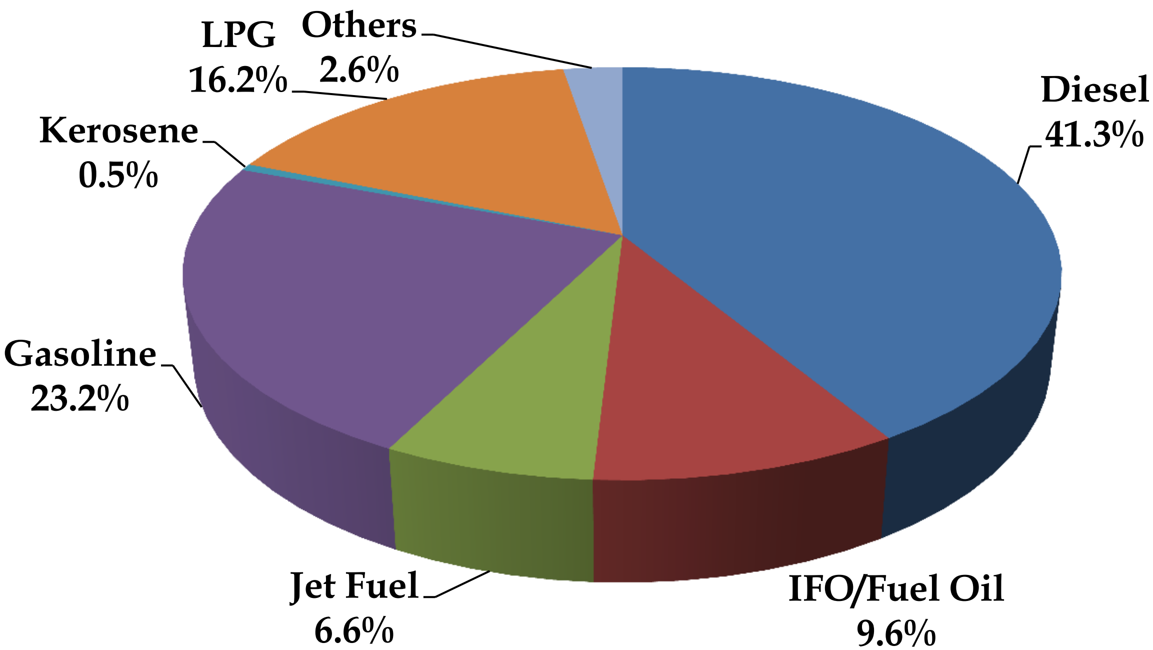
Note: 2010 data are preliminary as of March 2011

2010 Crude Oil Imports



	In Million Barrels (MMB)
Middle East	**54.3**
Saudi Arabia	30.4
Iran	0.8
Iraq	0
UAE	18.1
Qatar	4.3
Oman	0.7
Indonesia	**0.5**
Malaysia	**6.9**
Others	**5.5**
TOTAL	**67.2**

2010 Petroleum Product Imports



	In Million Barrels (MMB)
Diesel	22.4
IFO/Fuel Oil	5.2
Jet Fuel	3.5
Gasoline	12.6
Kerosene	0.3
LPG	8.8
Others	1.4
TOTAL	54.1

OPEC Cartel vs World Supply/Demand

Top Producers	mil b/d	Net Exporters	mil b/d
Saudi Arabia	10.52	Saudi Arabia	7.32
Russia	10.12	Russia	7.19
United States	9.65	Iran	2.49
China	4.27	UAE	2.49
Iran	4.25	Norway	2.13
Canada	3.46	Kuwait	2.12
Mexico	2.98	Nigeria	1.94
UAE	2.81	Angola	1.88
Brazil	2.75	Algeria	1.81
Nigeria	2.46	Iraq	1.76
Kuwait	2.45	Venezuela	1.75
Iraq	2.41	Libya	1.53
Venzuela	2.38	Kazakhstan	1.30
Norway	2.13	Canada	1.14
Algeria	2.08	Qatar	1.07

Source: EIA - International Statistics
(Top Producers - 2010; Top Exporters -2009)

	2008	2009	2010	2011	2012
	million b/d				
DEMAND					
US*	19.50	18.77	19.15	19.00	18.90
China*	7.82	8.32	9.07	9.50	10.00
India*	2.95	3.11	3.33	3.44	3.57
Phils.	0.28	0.29	0.31	0.29	0.29
Others	55.85	54.81	56.44	56.77	57.54
TOTAL WORLD DEMAND	86.40	85.30	88.30	89.00	90.30
SUPPLY					
OPEC**	31.90	28.59	29.20	29.71	30.20
Non-OPEC	50.70	51.60	52.70	53.30	53.40
OPEC NGLs and non-conventionals	4.50	4.90	5.30	5.29	5.65
TOTAL SUPPLY	86.80	85.70	87.50	88.30	89.25

Note: 1) Total supply and demand taken from the Oil Market Report of IEA dated 12 Dec 2011.
2) Balance of Total Supply vs Total Demand : stock change and miscellaneous
3) Non-OPEC Supply includes world biofuels production including fuel ethanol from US and Brazil
4) IEA's OPEC supply call are 30.5 mil b/d for 2011; 30.2 mil b/d for 2012 .

Source: IEA's Oil Market Report dated 12 December 2011 1.08

* EIA, International Energy Statistics

**Platts survey except 2012, which is IEA's call for OPEC.

Downstream Oil Industry

- Fuel Price

COMPARATIVE PRICES
(in Peso/liter, January 16, 2012)

	Diesel	Unleaded Gasoline
	Pump Price	Pump Price
Australia	68.90	68.18
Hongkong	68.64	94.71
Singapore	55.66	72.39
New Zealand	55.08	76.71
US (California)	47.52	42.85
Philippines*	**46.69**	**56.53**
Indonesia	45.60	40.08
China	44.09	48.36
Thailand**	41.49	48.17
Malaysia	25.24	26.64

* Common price
** Thailand's Unleaded Gasoline – extrapolate price

OIL PRICE MOVEMENT For 2011

Gasoline	MOPS FOB Price Range	Change in MOPS	Forex	Change in Forex	Estimated Adjustment: ERB Formula	Estimated Adjustment: Alternative Formula No. 1	Estimated Adjustment: Alternative Formula No. 2	Estimated Adjustment: Alternative Formula No. 3	Actual Adjustment
	$/bbl		P/$		P/l				
Jan 3-7, 2011	103.70-106.30	0.94	43.84	(0.37)	0.02	0.35	0.29	0.07	0.00
Jan 10-14, 2011	104.71-107.59	0.77	44.15	(0.07)	0.19	0.29	0.24	0.21	0.50
Jan 17-21, 2011	106.66-108.34	1.41	44.46	0.31	0.67	0.53	0.44	0.68	0.75
Jan 24-28, 2011	103.48-107.98	1.28	44.31	0.31	0.64	0.48	0.40	0.64	0.50
Jan 31-Feb 4, 2011	107.14-110.41	(2.13)	44.06	(0.15)	(0.79)	(0.80)	(0.66)	(0.82)	(0.75)
Feb 7-11, 2011	107.43-109.17	3.29	43.59	(0.25)	0.83	1.23	1.02	0.94	0.75
Feb 14-18, 2011	108.14-111.25	(0.64)	43.53	(0.47)	(0.57)	(0.24)	(0.20)	(0.53)	0.00
Feb 21-25, 2011	112.09-123.42	1.25	43.64	(0.05)	0.34	0.47	0.38	0.38	0.50
Feb 28-Mar 4, 2011	117.79-123.54	7.23	43.48	0.11	2.32	2.70	2.22	2.50	2.25
Mar 7-11, 2011	119.45-124.68	3.94	43.42	(0.16)	1.08	1.47	1.21	1.22	1.00
Mar 14-18, 2011	116.12-122.12	1.11	43.77	(0.06)	0.29	0.41	0.34	0.33	0.50
Mar 21-25, 2011	120.83-122.58	(3.30)	43.43	0.35	(0.72)	(1.23)	(1.02)	(0.88)	(0.60)
Mar 28-Apr 1, 2011	120.91-124.90	3.22	43.44	(0.34)	0.70	1.20	0.98	0.86	0.70
Apr 4-8, 2011	126.20-130.46	0.75	43.21	0.01	0.24	0.28	0.23	0.26	0.17
Apr 11-15, 2011	127.51-131.52	5.44	43.21	(0.23)	1.46	2.03	1.66	1.67	1.50
Apr 18-22, 2011	126.83-131.35	1.27	43.27	0.00	0.39	0.47	0.39	0.43	0.25
Apr 25-29, 2011	132.30-137.71	(0.15)	43.11	0.06	0.01	(0.06)	(0.05)	(0.01)	0.00
May 2-6, 2011	123.37-138.23	5.41	42.90	(0.16)	1.51	2.02	1.64	1.71	1.40
May 9-13, 2011	123.45-131.87	(0.58)	43.00	(0.22)	(0.38)	(0.22)	(0.17)	(0.34)	(0.50)
May 16-20, 2011	118.08-121.18	(6.36)	43.24	0.10	(1.84)	(2.37)	(1.93)	(2.07)	(1.75)
May 23-27, 2011	117.15-122.54	(8.17)	43.41	0.24	(2.28)	(3.05)	(2.49)	(2.58)	(2.00)
May 30-Jun 3, 2011	119.99-123.31	0.75	43.23	0.18	0.38	0.28	0.23	0.37	0.50
Jun 6-10, 2011	120.24-124.92	1.43	43.23	(0.18)	0.28	0.53	0.44	0.36	0.30
Jun 13-17, 2011	118.18-123.58	1.44	43.44	0.002	0.44	0.54	0.44	0.48	0.50
Jun 20-24, 2011	115.07-121.43	(1.30)	43.49	0.21	(0.21)	(0.49)	(0.40)	(0.30)	0.00
Jun 27-Jul 1, 2011	112.96-123.37	(2.68)	43.45	0.05	(0.78)	(1.00)	(0.82)	(0.87)	(0.75)

OIL PRICE MOVEMENT For 2011

Gasoline	MOPS FOB Price Range	Change in MOPS	Forex	Change in Forex	Estimated Adjustment: ERB Formula	Alternative Formula: No. 1	Alternative Formula: No. 2	Alternative Formula: No. 3	Actual Adjustment
	$/bbl		P/$		P/l				
Jun 27-Jul 1, 2011	112.96-123.37	(2.68)	43.45	0.05	(0.78)	(1.00)	(0.82)	(0.87)	(0.75)
Jul 4-8, 2011	124.91-129.30	(1.16)	42.93	(0.05)	(0.40)	(0.43)	(0.36)	(0.42)	(0.50)
Jul 11-15, 2011	125.20-127.63	8.27	42.98	(0.52)	2.07	3.09	2.50	2.43	2.00
Jul 18-22, 2011	123.94-127.42	0.09	42.75	0.05	0.08	0.03	0.03	0.07	0.23
Jul 25-29, 2011	126.43-128.04	(0.84)	42.26	(0.23)	(0.46)	(0.32)	(0.25)	(0.44)	(0.35)
Aug 1-5, 2011	118.00-129.28	2.11	42.24	(0.50)	0.18	0.79	0.63	0.37	0.20
Aug 8-12, 2011	115.63-119.53	(3.21)	42.55	(0.01)	(0.97)	(1.20)	(0.96)	(1.09)	(1.00)
Aug 15-19, 2011	119.83-124.58	(6.49)	42.47	0.30	(1.68)	(2.42)	(1.95)	(1.98)	(1.50)
Aug 22-26, 2011	120.57-125.57	5.00	42.47	(0.08)	1.44	1.87	1.50	1.63	1.40
Aug 29-Sep 2, 2011	126.27-131.18	0.60	42.25	(0.00)	0.18	0.22	0.18	0.20	0.30
Sep 5-9, 2011	126.92-128.62	6.29	42.32	(0.22)	1.69	2.35	1.87	1.97	1.60
Sep 12-16, 2011	122.98-127.21	(1.84)	43.08	0.07	(0.49)	(0.69)	(0.55)	(0.57)	(0.50)
Sep 19-23, 2011	120.61-125.77	(3.33)	43.62	0.76	(0.32)	(1.24)	(1.01)	(0.61)	(0.20)
Sep 26-30, 2011	116.98-120.17	(1.04)	43.68	0.54	0.16	(0.39)	(0.32)	0.01	0.00
Oct 3-7, 2011	116.09-122.83	(4.39)	43.86	0.06	(1.30)	(1.64)	(1.35)	(1.43)	(1.20)
Oct 10-14, 2011	122.80-126.17	0.01	43.39	0.18	0.15	0.004	0.004	0.12	0.20
Oct 17-21, 2011	120.05-127.98	5.55	43.25	(0.47)	1.31	2.07	1.70	1.55	1.40
Oct 24-28, 2011	120.23-121.64	(1.22)	43.06	(0.14)	(0.50)	(0.46)	(0.37)	(0.51)	(0.37)
Oct 31-Nov 4, 2011	114.73-118.42	(2.23)	42.93	(0.19)	(0.85)	(0.83)	(0.68)	(0.88)	(0.70)
Nov 7-11, 2011	115.37-120.08	(4.65)	43.17	(0.13)	(1.53)	(1.74)	(1.41)	(1.65)	(1.50)
Nov 14-18, 2011	109.75-113.50	1.19	43.38	0.24	0.57	0.45	0.36	0.56	0.65
Nov 21-25, 2011	107.95-109.35	(5.74)	43.49	0.21	(1.59)	(2.14)	(1.76)	(1.79)	(1.37)
Nov 28-Dec 2, 2011	109.90-112.68	(3.20)	43.50	0.11	(0.89)	(1.19)	(0.98)	(1.00)	(0.80)
Dec 5-9, 2011	111.85-114.56	2.33	43.36	0.01	0.73	0.87	0.71	0.79	0.80
Dec 12-16, 2011	112.09-115.88	2.31	43.93	(0.14)	0.60	0.86	0.71	0.68	0.17
Dec 19-23, 2011	110.91-115.27	0.27	43.75	0.57	0.55	0.10	0.08	0.47	0.00
Dec 26-30, 2011	115.74-116.93	(0.29)	43.78	(0.18)	(0.24)	(0.11)	(0.09)	(0.22)	0.00

OIL PRICE MOVEMENT
For 2011

Diesel	MOPS FOB Price Range	Change in MOPS	Forex	Change in Forex	Estimated Adjustment: ERB Formula	Estimated Adjustment: Alternative Formula No. 1	Alternative Formula No. 2	Alternative Formula No. 3	Actual Adjustment
	$/bbl		P/$		P/l				
Jan 3-7, 2011	105.30-107.64	0.88	43.84	(0.37)	(0.003)	0.33	0.27	0.05	0.00
Jan 10-14, 2011	105.98-110.41	0.88	44.15	(0.07)	0.22	0.33	0.27	0.25	0.25
Jan 17-21, 2011	110.49-111-.65	2.34	44.46	0.31	0.97	0.87	0.73	0.99	1.00
Jan 24-28, 2011	109.27-111.01	2.06	44.31	0.31	0.89	0.77	0.64	0.90	1.00
Jan 31-Feb 4, 2011	112.15-115.01	(0.66)	44.06	(0.15)	(0.33)	(0.25)	(0.21)	(0.32)	(0.25)
Feb 7-11, 2011	114.49-117.30	3.15	43.59	(0.25)	0.78	1.18	0.98	0.89	0.75
Feb 14-18, 2011	116.33-118.65	2.51	43.53	(0.47)	0.39	0.94	0.77	0.53	0.00
Feb 21-25, 2011	118.89-129.34	1.61	43.64	(0.05)	0.45	0.60	0.49	0.51	0.50
Feb 28-Mar 4, 2011	126.27-131.87	5.82	43.48	0.11	1.89	2.17	1.79	2.03	1.75
Mar 7-11, 2011	129.62-132.86	5.74	43.42	(0.16)	1.62	2.14	1.76	1.82	1.50
Mar 14-18, 2011	130.25-135.50	2.11	43.77	(0.06)	0.59	0.79	0.64	0.67	0.60
Mar 21-25, 2011	133.72-135.16	0.79	43.43	0.35	0.57	0.30	0.24	0.50	0.60
Mar 28-Apr 1, 2011	133.09-137.04	2.31	43.44	(0.34)	0.39	0.86	0.71	0.55	0.40
Apr 4-8, 2011	138.98-142.65	0.22	43.21	0.01	0.07	0.08	0.07	0.08	0.00
Apr 11-15, 2011	138.63-144.37	5.67	43.21	(0.23)	1.51	2.12	1.73	1.75	1.50
Apr 18-22, 2011	137.64-140.82	0.53	43.27	0.00	0.16	0.20	0.16	0.18	0.10
Apr 25-29, 2011	138.79-141.29	(1.53)	43.11	0.06	(0.41)	(0.57)	(0.47)	(0.48)	(0.40)
May 2-6, 2011	122.75-140.51	0.75	42.90	(0.16)	0.07	0.28	0.23	0.15	0.00
May 9-13, 2011	125.40-130.15	(5.10)	43.00	(0.22)	(1.76)	(1.90)	(1.54)	(1.86)	(1.75)
May 16-20, 2011	124.93-125.94	(7.31)	43.24	0.10	(2.13)	(2.73)	(2.22)	(2.39)	(2.00)
May 23-27, 2011	123.15-128.73	(2.02)	43.41	0.24	(0.40)	(0.75)	(0.61)	(0.52)	(0.50)
May 30-Jun 3, 2011	127.79-130.06	0.08	43.23	0.18	0.18	0.03	0.03	0.15	0.25
Jun 6-10, 2011	129.10-133.71	3.36	43.23	(0.18)	0.86	1.25	1.02	1.00	0.90
Jun 13-17, 2011	126.15-133.30	1.96	43.44	0.002	0.60	0.73	0.60	0.66	0.60
Jun 20-24, 2011	120.51-126.89	(0.02)	43.49	0.21	0.19	(0.01)	(0.01)	0.14	0.25
Jun 27-Jul 1, 2011	119.37-125.57	(6.20)	43.45	0.05	(1.86)	(2.31)	(1.90)	(2.05)	(1.75)

OIL PRICE MOVEMENT
For 2011

Diesel	MOPS FOB Price Range	Change in MOPS	Forex	Change in Forex	Estimated Adjustment: ERB Formula	Alternative Formula: No. 1	No. 2	No. 3	Actual Adjustment
	$/bbl		P/$		P/l				
Jun 27-Jul 1, 2011	119.37-125.57	(6.20)	43.45	0.05	(1.86)	(2.31)	(1.90)	(2.05)	(1.75)
Jul 4-8, 2011	124.59-131.33	(1.90)	42.93	(0.05)	(0.63)	(0.71)	(0.58)	(0.67)	(0.50)
Jul 11-15, 2011	129.33-131.51	4.15	42.98	(0.52)	0.80	1.55	1.25	1.05	0.80
Jul 18-22, 2011	130.85-132.22	3.47	42.75	0.05	1.10	1.30	1.05	1.20	1.10
Jul 25-29, 2011	130.39-131.75	0.98	42.26	(0.23)	0.09	0.37	0.30	0.18	0.00
Aug 1-5, 2011	122.67-134.13	(0.18)	42.24	(0.50)	(0.53)	(0.07)	(0.05)	(0.40)	(0.50)
Aug 8-12, 2011	120.88-123.18	(1.96)	42.55	(0.01)	(0.60)	(0.73)	(0.58)	(0.67)	(0.50)
Aug 15-19, 2011	121.18-125.52	(6.91)	42.47	0.30	(1.80)	(2.58)	(2.07)	(2.12)	(1.70)
Aug 22-26, 2011	121.88-125.64	1.60	42.47	(0.08)	0.41	0.60	0.48	0.48	0.40
Aug 29-Sep 2, 2011	125.90-128.84	0.09	42.25	(0.00)	0.03	0.03	0.03	0.03	0.00
Sep 5-9, 2011	125.36-128.56	3.83	42.32	(0.22)	0.95	1.43	1.14	1.14	0.95
Sep 12-16, 2011	123.69-128.17	(0.88)	43.08	0.07	(0.20)	(0.33)	(0.26)	(0.25)	(0.20)
Sep 19-23, 2011	120.90-126.56	(2.04)	43.62	0.76	0.07	(0.76)	(0.62)	(0.18)	0.00
Sep 26-30, 2011	117.27-122.22	(1.39)	43.68	0.54	0.06	(0.52)	(0.43)	(0.11)	0.00
Oct 3-7, 2011	117.03-119.56	(3.39)	43.86	0.06	(0.99)	(1.26)	(1.04)	(1.10)	(1.00)
Oct 10-14, 2011	119.48-123.58	(2.18)	43.39	0.18	(0.52)	(0.81)	(0.67)	(0.61)	(0.40)
Oct 17-21, 2011	123.16-126.41	3.04	43.25	(0.47)	0.54	1.13	0.93	0.71	0.55
Oct 24-28, 2011	126.00-129.70	3.60	43.06	(0.14)	0.98	1.34	1.10	1.12	1.00
Oct 31-Nov 4, 2011	126.03-129.53	3.22	42.93	(0.19)	0.81	1.20	0.98	0.95	1.00
Nov 7-11, 2011	130.75-133.54	(0.53)	43.17	(0.13)	(0.28)	(0.20)	(0.16)	(0.27)	(0.21)
Nov 14-18, 2011	130.18-133.38	5.11	43.38	0.24	1.78	1.91	1.56	1.88	1.90
Nov 21-25, 2011	126.16-127.99	(0.14)	43.49	0.21	0.16	(0.05)	(0.04)	0.09	0.30
Nov 28-Dec 2, 2011	126.42-127.73	(5.24)	43.50	0.11	(1.51)	(1.96)	(1.61)	(1.68)	(1.50)
Dec 5-9, 2011	126.13-128.97	0.05	43.36	0.01	0.02	0.02	0.01	0.02	0.00
Dec 12-16, 2011	121.54-126.03	0.53	43.93	(0.14)	0.03	0.20	0.16	0.08	0.00
Dec 19-23, 2011	120.48-125.25	(3.70)	43.75	0.57	(0.63)	(1.38)	(1.15)	(0.86)	(0.40)
Dec 26-30, 2011	124.11-124.48	(0.62)	43.78	(0.18)	(0.35)	(0.23)	(0.19)	(0.33)	(0.30)

Historical Net Profit/(Loss)

(in million pesos)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
PETRON	3,763	2,362	(2,549)	1,224	2,921	3,114	4,101	6,051	6,018	6,395	(3,920)	4,259	7,924
CALTEX	1,284	1,423	(3,037)	1,028	1,171	(1,924)	(1,682)	(381)	2,745	2,851	(1,463)	1,540	1,425
SHELL	66	949	(2,156)	1,685	1,628	1,523	1,790	5,763	4,123	8,046	(2,685)	6,773	6,024
TOTAL	(80)	(139)	(483)	(139)	(223)	(580)	(331)	156	(290)	324	(567)	89	375
EASTERN	0	5	(3)	3	1	1	(8)	4	9	7	4	12	5
SEAOIL	0	2	0	5	6	6	(1)	8	37	123	141	203	417
LIQUIGAZ	(110)	(25)	(230)	(1,052)	29	4	38	70	43	100	15	252	183
PRYCE	108	170	39	(1,052)	(535)	(80)	(103)	(20)	(7)	343	(248)	98	140
PTT		(64)	(780)	(432)	29	(7)	(825)	(139)	72	1	211	(85)	(233)

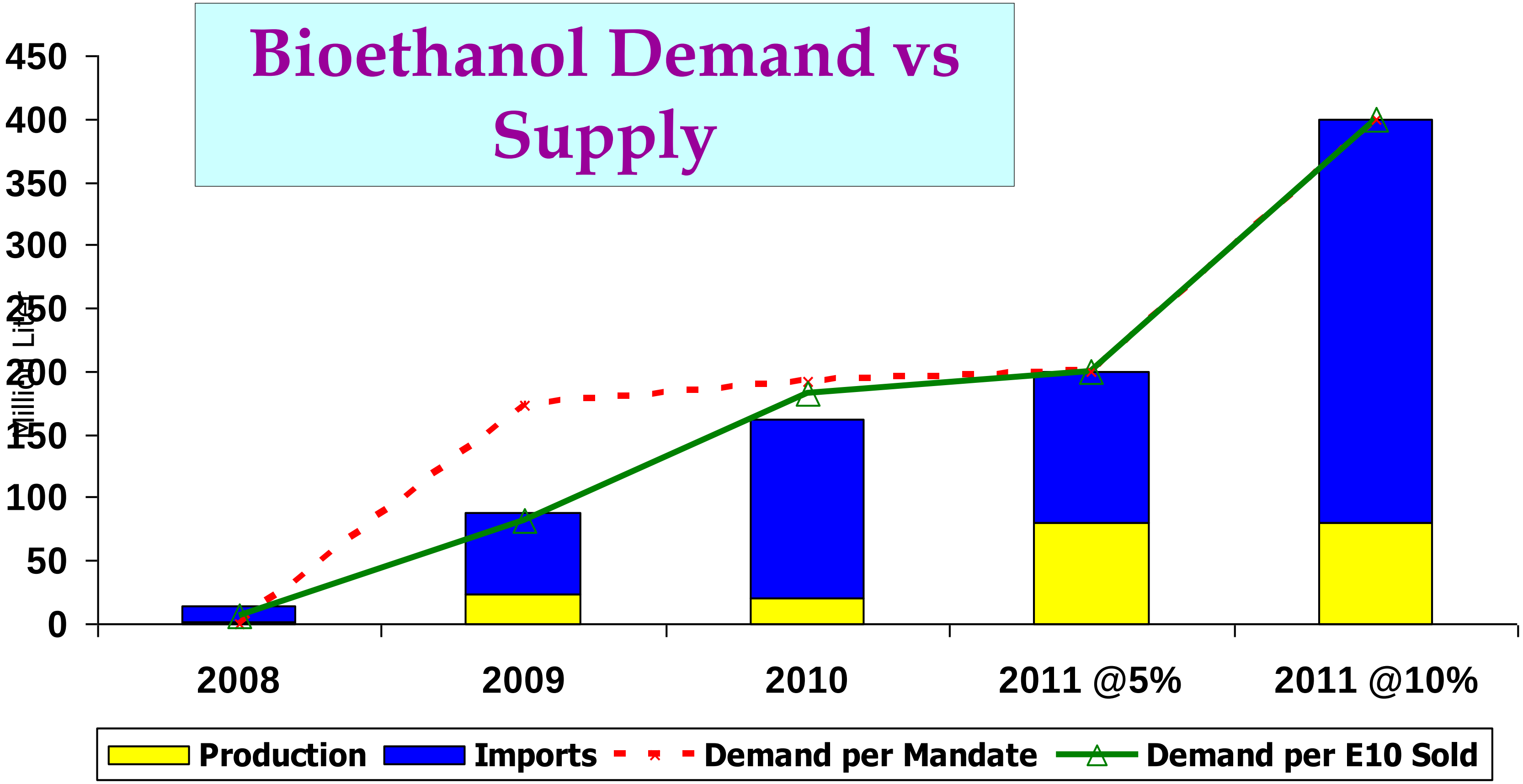
Historical Net Profit/Margin %

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
PETRON	6.38	3.82	(2.90)	1.38	3.16	2.81	2.78	3.16	2.84	3.04	(1.46)	2.41	3.46
SHELL	2.12	3.45	(1.28)	2.88	3.14	2.57	2.25	3.87	2.63	4.94	(1.39)	4.86	3.64
CALTEX	3.26	3.61	(5.43)	1.77	2.10	(3.30)	(2.61)	(0.52)	3.65	3.74	(1.51)	2.24	1.96
TOTAL	(69.57)	(13.60)	(14.01)	(2.61)	(3.35)	(6.89)	(2.37)	0.64	(1.01)	1.28	(2.02)	0.46	1.41
EASTERN	0.24	2.23	(0.66)	0.70	0.22	0.12	(0.56)	0.25	0.55	0.49	0.19	0.62	0.17
SEAOIL	0.03	0.77	0.07	0.37	0.31	0.23	0.27	0.51	1.11	3.43	2.29	2.99	3.59
LIQUIGAZ	(14.20)	(1.77)	(12.20)	(9.09)	(0.13)	(0.27)	1.06	1.02	0.62	1.03	0.13	2.25	1.31
PRYCE	17.36	15.41	2.81	(69.35)	(35.95)	(4.94)	(6.49)	(1.15)	(0.58)	23.46	(12.58)	5.40	6.47
PTT		(1.38)	(11.85)	(5.55)	0.27	(0.09)	(14.52)	(1.59)	0.91	0.01	1.39	(0.74)	(1.32)

Downstream Oil Industry

- Biofuels

Bioethanol Situationer



Notes:
- Ethanol demand (green line) as 10% of E10 sales
- Ethanol demand (red line) as 5% of total gasoline sales
- Ethanol demand as 10% of total gasoline sales by 2011
- Full utilization of ethanol production capacity by 2011

Invested in Clean Energy

Biofuels

- Biofuels
  - Issued Department Circular on the Utilization of Locally-Produced Bioethanol in the Production of E-Gasoline Consistent with the Biofuels Act of 2006 on December 16, 2011
  - Produced 149.5 million liters of biodiesel (actual diesel displacement from coco-methyl ester or CME)
  - Certificate of Accreditation to Manufacture bioethanol given to Roxol Bioenergy Corporation (start production in June 2011) – 30 million liters per year
  - Issued Certificate of Registration with *Notice To Proceed* construction of bioethanol plants to Green Future Innovations Inc. and Canlaon Alcogress Agro-Industrial Corp. – 99.4 million liters per year

Ensured Sufficient Supply

Oil Products

- **Formulated/Reviewed Quality Standards (PNS) for fuel and facilities:**
    - Aviation Gasoline (new) and Multi-grade 10 percent ethanol blend (E10)
    - Jet A1, E-Gasoline, Anhydrous Bioethanol, Euro4 Fuels
    - Storing and Handling of biodiesel and biodiesel blends at Depots and Storing and Handling E-gasoline at Retail Outlets
    - Storing and Handling 5 percent biodiesel blend (B5) at Retail Outlets and Transportation of Petroleum Products via Pipeline

Ensured Sufficient Supply

Oil Products

- **Witnessed and certified the denaturing of 423 shipments (100 million liters) of imported bioethanol to facilitate availment of tax and duty privileges**
- **Conducted inspection and sampling of products in**
  - *92 Depots*
  - *1,931 LPG establishments*
  - *2,479 Gasoline Stations*

Fuelling Sustainable Transportation Program (FSTP)

- Compressed Natural Gas
- Auto-LPG
- Electric Vehicles (E-trikes)

Invested in Clean Energy

Compressed Natural Gas (CNG)

	Particulars	Fuel Displacement	
		2010	2011 (1st Semester)
CNG	▪ 41 CNG fed buses commercially operating along Batangas-Laguna-Manila route ▪ 3 Certificates of Accreditation for Renewal (Greenstar Transport, BBL, KL CNG Transport) of 26 CNG buses ▪ 1 Certificate of Authority to Import 10 CNG Buses (RRCG)	▪ 387,732 liters of diesel equivalent	▪ 630,393 liters of diesel equivalent

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Invested in Clean Energy

Auto-LPG

	Particulars	Fuel Displacement	
		2010	2011 (1st Semester)
Auto-LPG	▪ 17,500 units of taxis converted to LPG as of end-2010 ▪ 1,231 units of taxis converted to LPG in 1st half of 2011 ▪ 217 auto-LPG refilling stations available nationwide ▪ 13 women technicians completed training on the conversion of diesel vehicles to auto-LPG (Gender and Development sponsored project)	▪ 165 Million liters of gasoline displacement	▪ 88.6 Million liters of gasoline displacement

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Invested in Clean Energy

E-Vehicles

	Paricitulars	Fuel Displacement	
		2010	2011 (1st Semester)
Electric Vehicles	▪ 560 units of electric vehicles in 2010 ▪ Total number of electric vehicles as of 1st half 2011 is 623 units	• 701,120 liters of gasoline displacement	• 391,244 liters of gasoline displacement

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Launch Low Carbon Future

Natural Gas as Fuel for the Future

- Implement Natural Gas Industry Development Program
  - *Natural Gas Infrastructure Development Program*
  - *Market Development Program*
  - *Capacity Development Program for the Industry*

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.

Launch Low Carbon Future

Push Sustainable Fuels for Transport

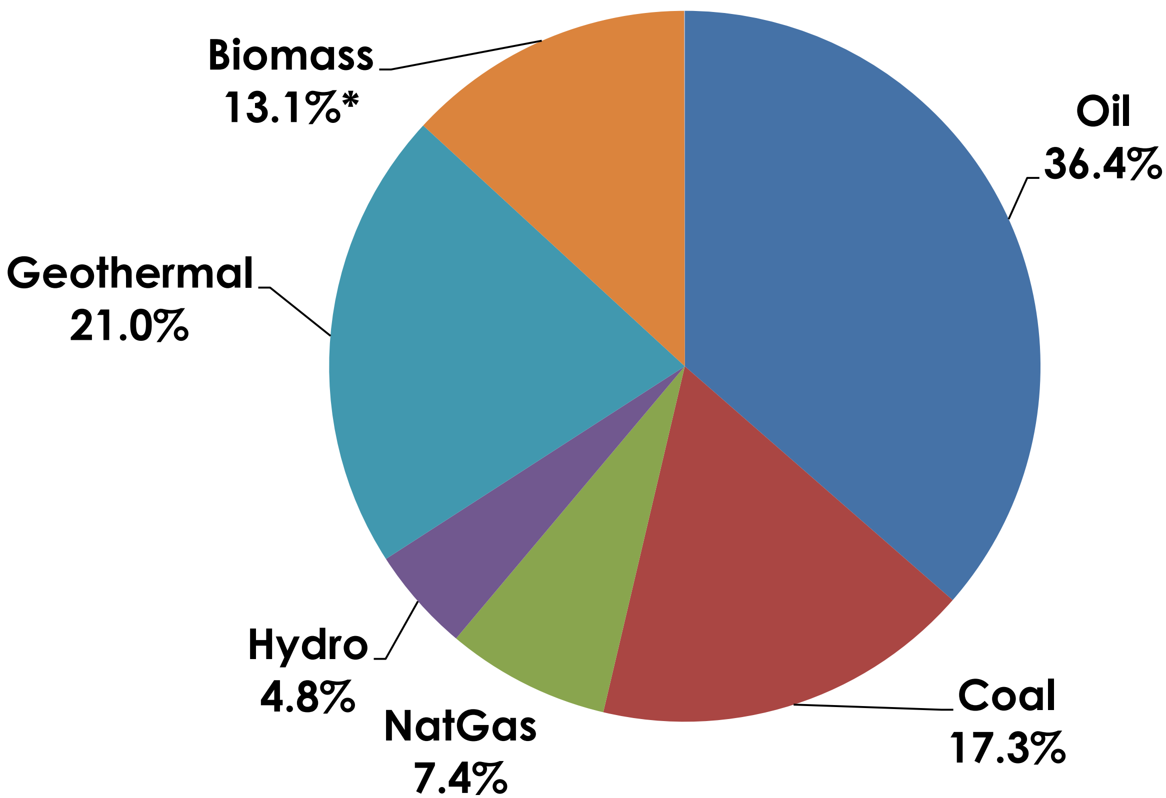
- **Strengthen implementation of Alternative Fuels Program such as Biofuels, CNG, auto-LPG, electric vehicles**
  - *Formulate standards for alternative fuels and technologies*
  - *Conduct of technology validation for alternative fuels*
  - *Develop and implement alternative fuels road map*
  - *Increase and sustain the share of alternative fuels in the fuel mix for transport*
  - *Facilitate the approval of Executive Order on Sustainable Transport*
  - *Facilitate the construction of supply and support infrastructures to include refueling & charging stations and pipeline networks*

Renewable Energy

- RE Accomplishments

Diversified Energy Mix

2010 Primary Energy Mix



Total Energy = 40.73 MTOE

Shares

Self-Sufficiency = 57.5%
Green Energy = 46.3%
RE = 38.9%

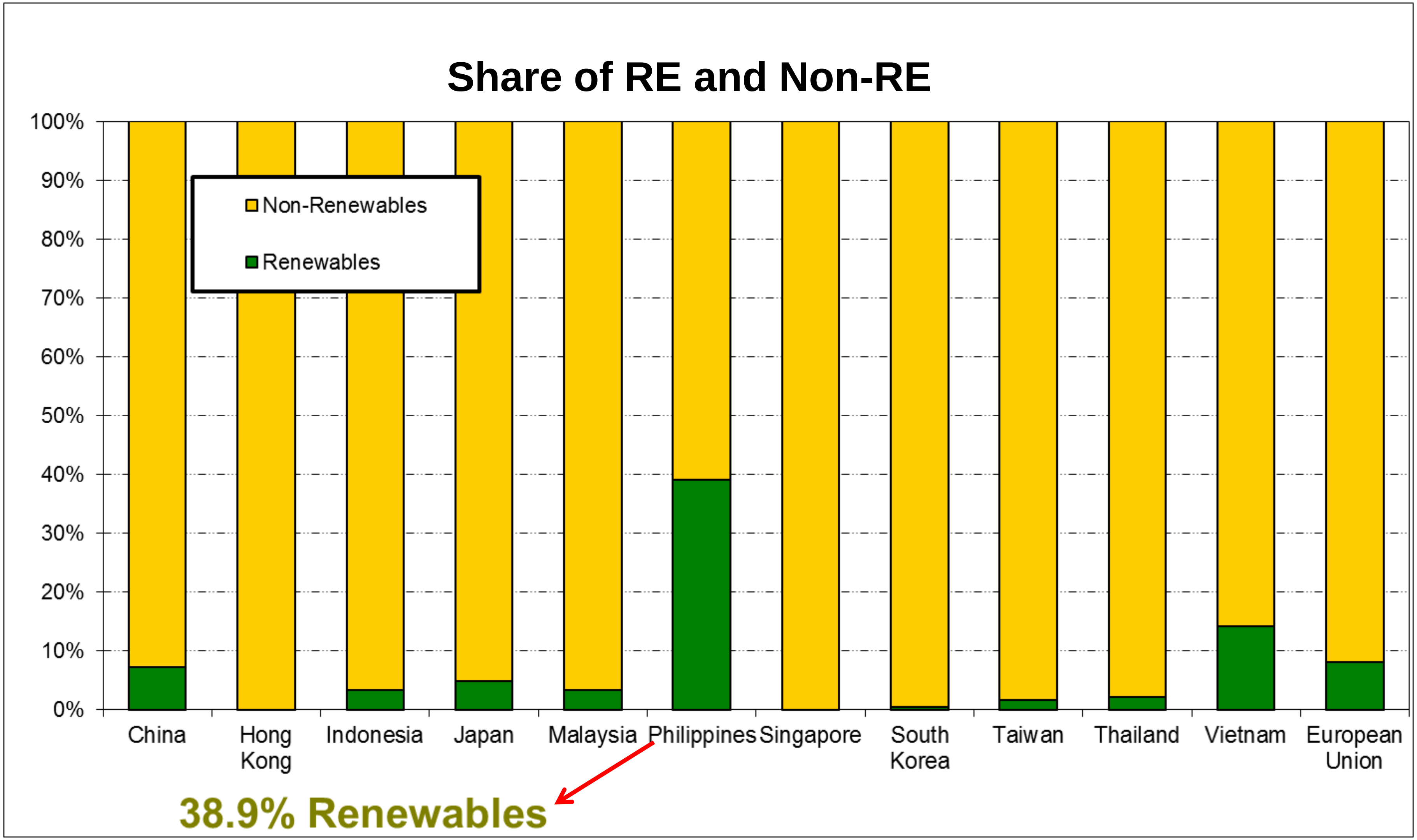
Biomass Breakdown

Industry = 27%
Residential = 67%
Commercial = 6%

Note:

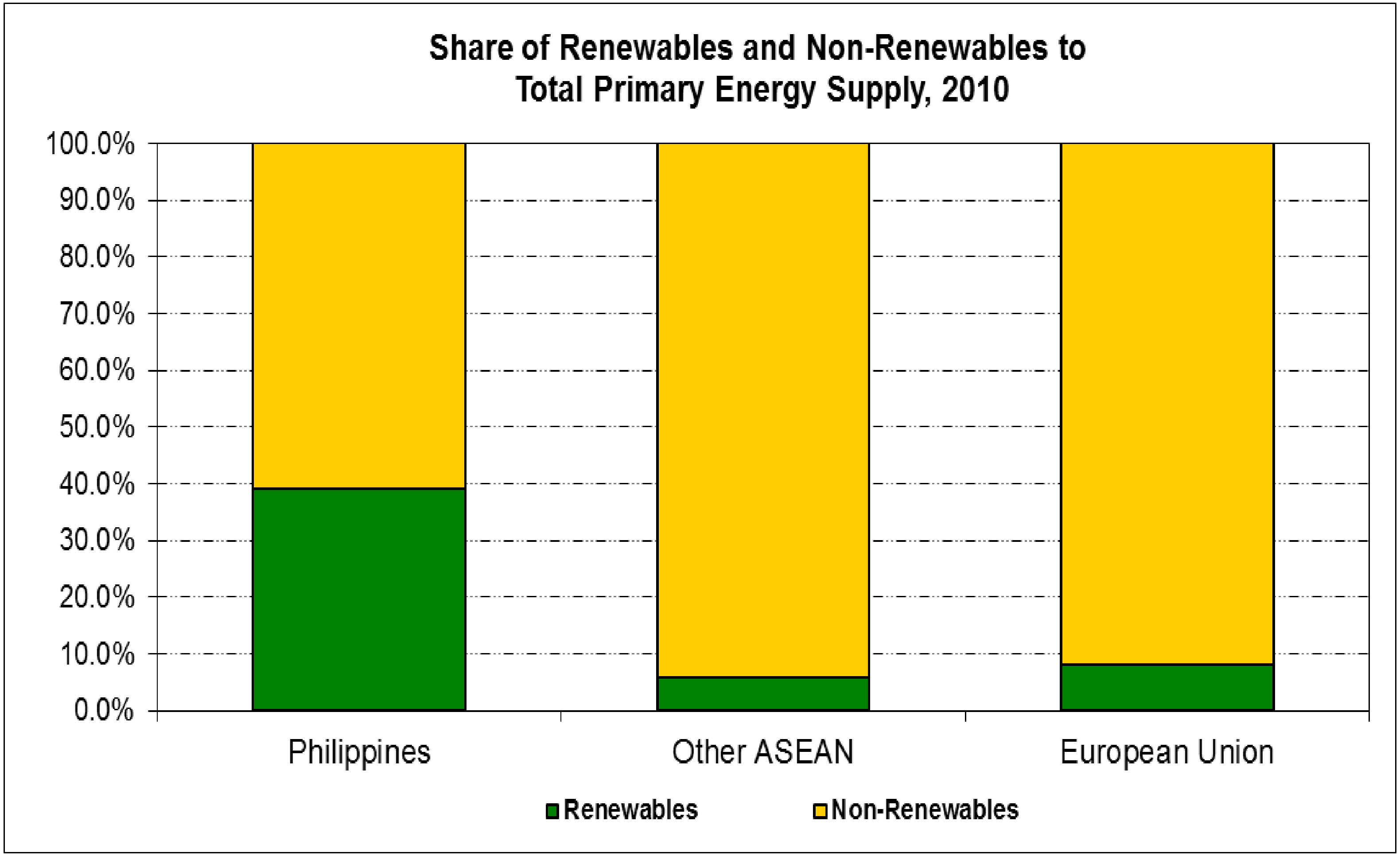
a) Wind and Solar contributes 0.001% with total capacity of 39 MW

2010 Total Primary Energy Supply, in MTOE



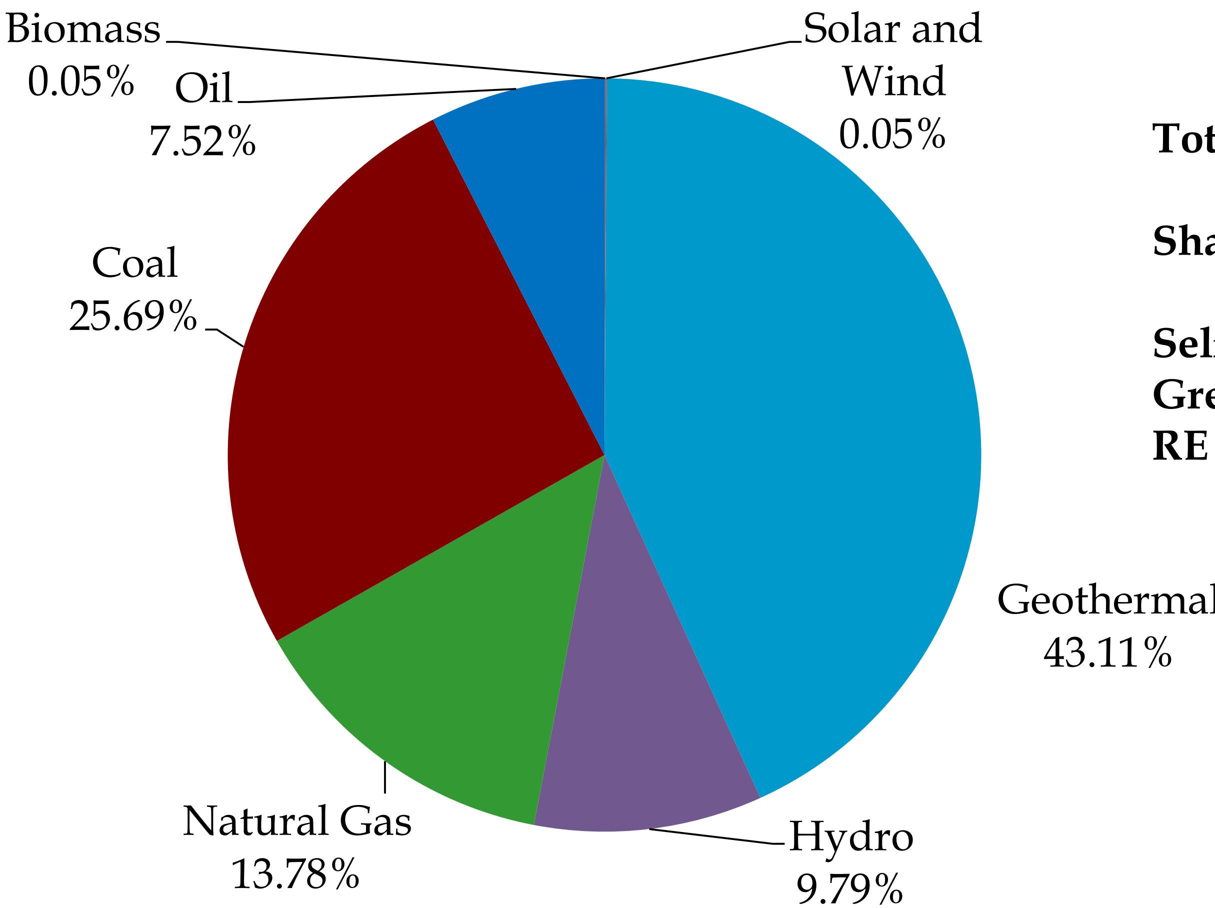
Source: BP Statistical Review of World Energy, 2011

RP vs Other Asean vs European Union



Diversified Energy Mix

2010 Power Generation Fuel Mix



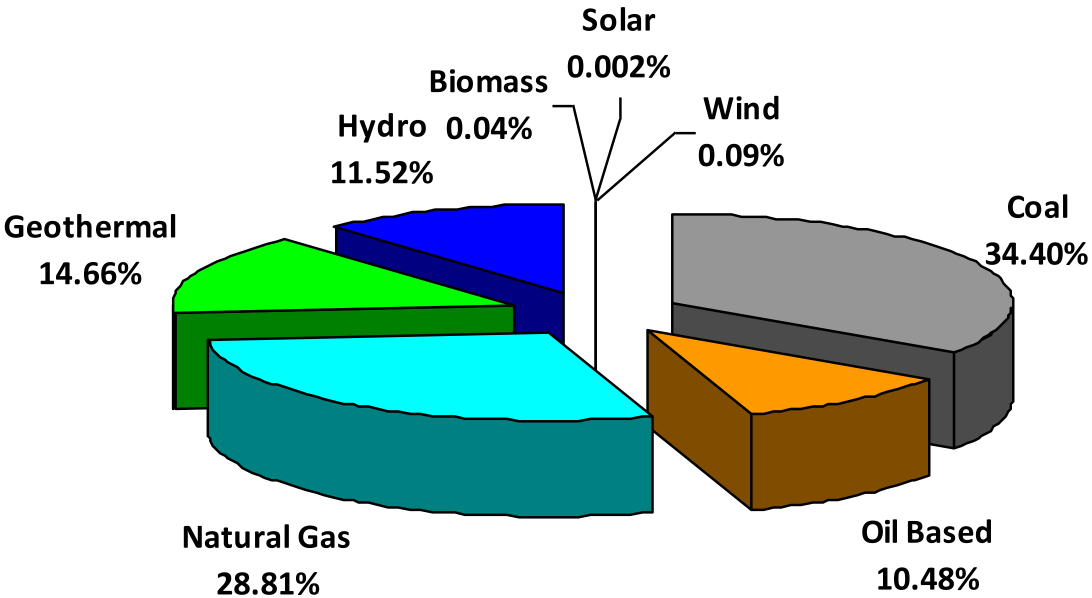
Total Energy = 19.81 MTOE

Shares

Self-sufficiency = 66.8%
Green Energy = 66.8%
RE = 53.0%

Diversified Energy Mix

2010 Power Generation Mix



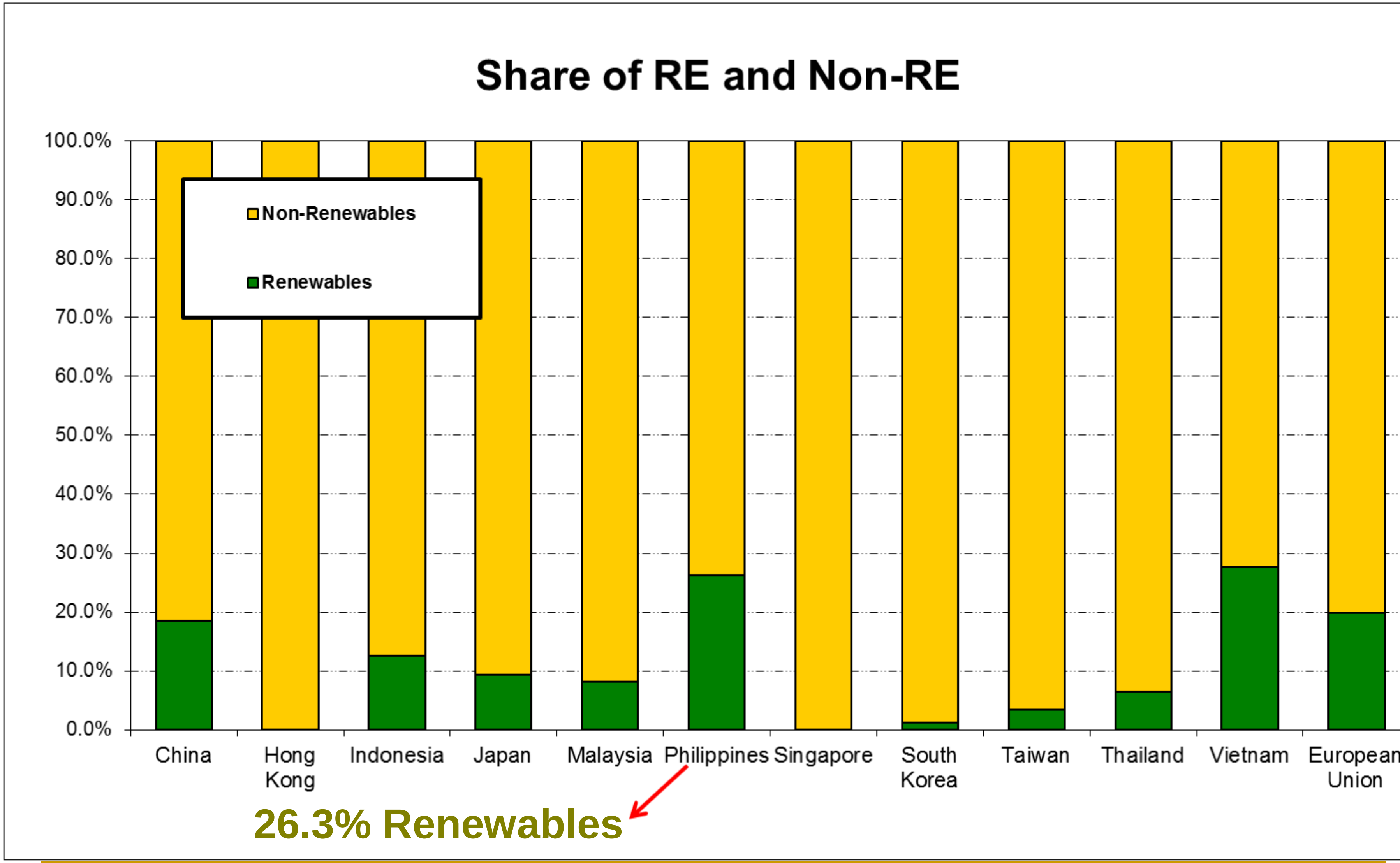
Total Generation = 67,743 GWh

Shares

Self-sufficiency = 62.9%
Green Energy = 55.1 %
RE = 26.3%

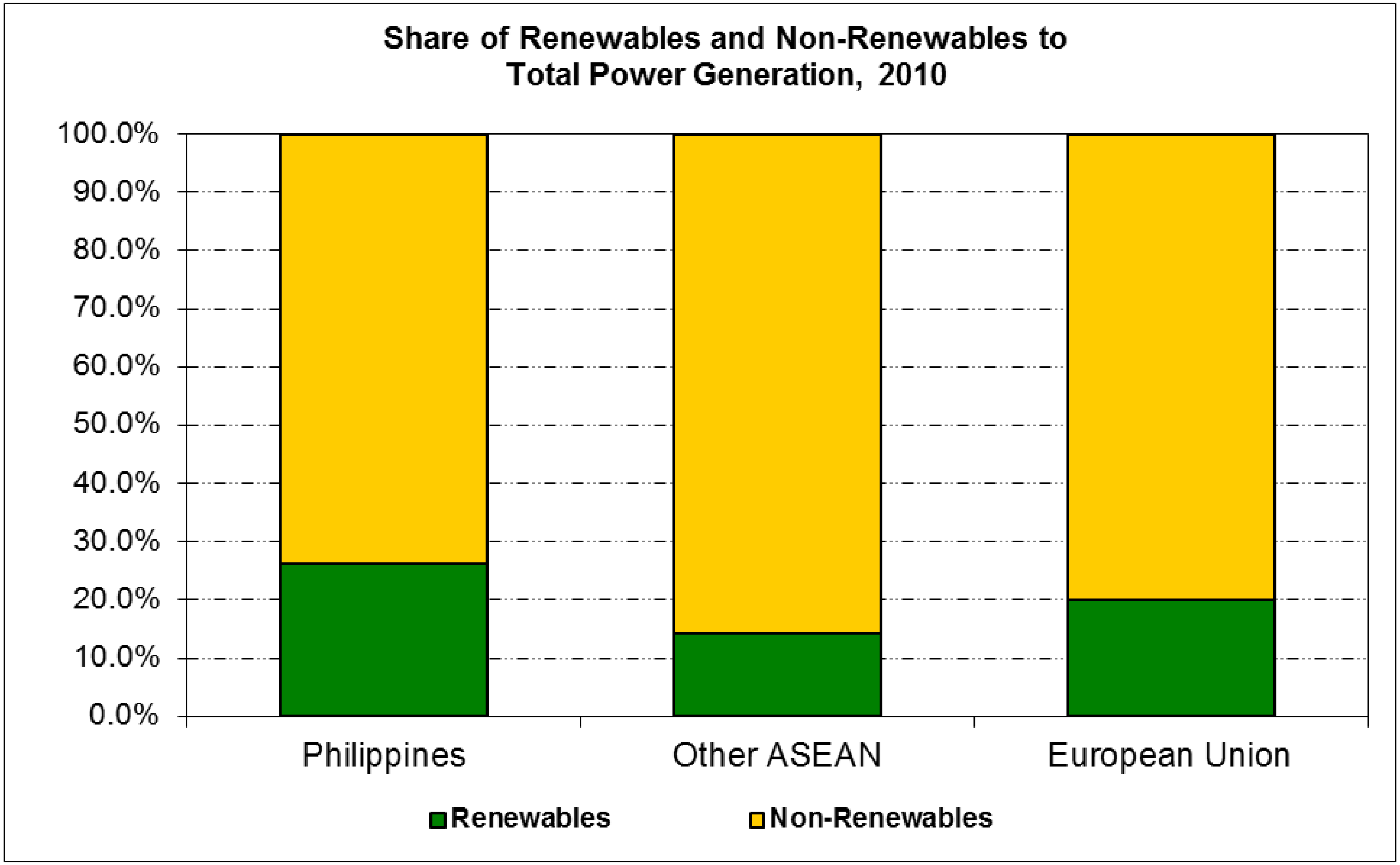
Note: Generation data includes grid connected, embedded, and off-grid generators

2010 Total Power Generation, in Terawatt-Hours



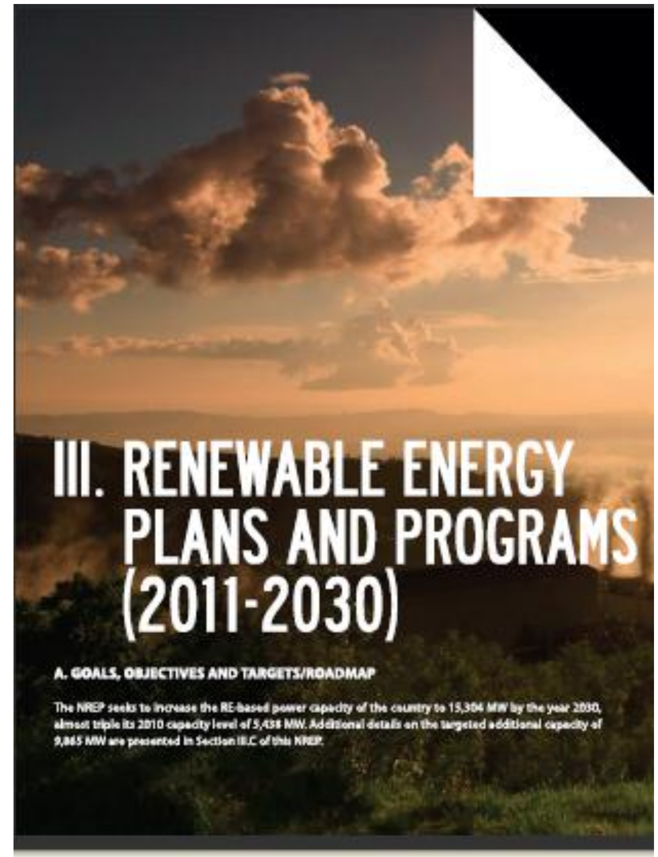
Source: BP Statistical Review of World Energy, 2011

RP vs Other Asean vs European Union



Renewable Energy

- Launched the National Renewable Energy Program on 14 June 2011
- Draft Renewable Portfolio Standard (RPS) Rules being revised for finalization
- Endorsed Feed-in-Tariff (FiT) Rates per technology to NREB pending ERC approval.



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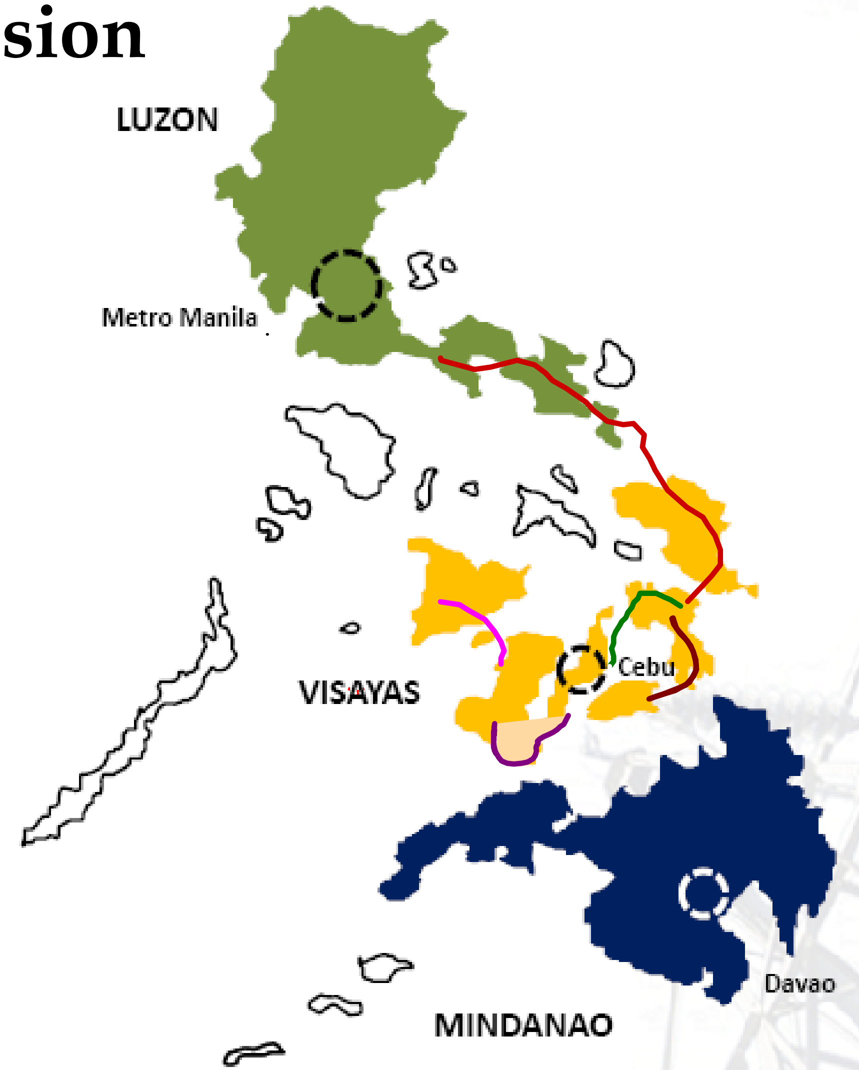
Power Sector

Power Sector Situationer

2010 Transmission

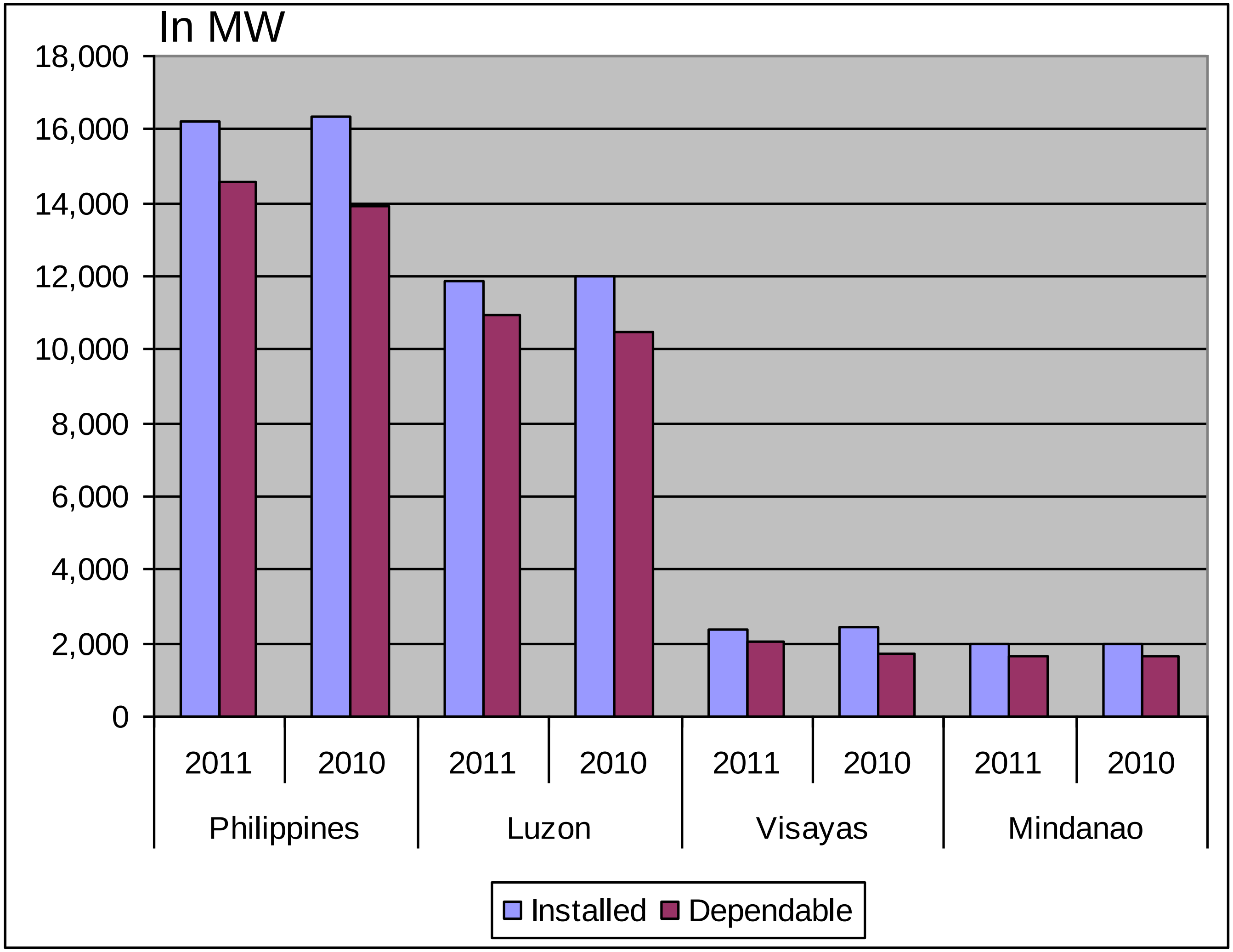


Interconnection Line Capacity

- Leyte-Luzon (440 MW)
- Leyte-Cebu (400 MW)
- Cebu-Negros (200 MW)
- Negros – Panay (100 MW)
- Leyte-Bohol (100 MW)

Note: Transparent islands in the above diagram are not covered by NGCP's network.

Ensured Sufficient Supply
Power



Improved availability of power supply via increased Dependable Capacity vis-à-vis Installed Capacity

Ensured Sufficient Supply

Power

- **Issued the following Department Circulars:**
  - ❖ **DC-2010-03-003** – *"Directing all Power Generation Companies, the Transmission Service Provider, and All Distribution Utilities to Ensure Adequate and Reliable Electric Power Supply in the Country"*

Results:

- ✓ GenCos are fully aware and compliant with their Annual Operating and Maintenance Program .
- ✓ Power plants maintained in-country stocks of fuel
- ✓ Reduced power outages due to effective management and coordination of available capacities.

Ensured Sufficient Supply

Increased output of Hydro

Luzon Grid Comparative Gross Generation

FUEL TYPE	2011		2010		Difference	
	GWh	%	GWh	%	GWh	%
Coal	14,704	39.69	15,504	40.57	-800	-5.16
Oil-based	437	1.18	2,798	7.32	-2,360	-84.36
Natural Gas	15,299	41.30	14,384	37.64	915	6.36
Geothermal	3,324	8.97	2,725	7.13	600	22.00
Hydro	3,209	8.66	2,764	7.23	446	16.13
Wind	44	0.12	36	0.09	9	24.64
Biomass	26	0.07	9	0.02	17	197.48
Total	**37,044**		**38,217**		**-1,173**	**-3.07**

Note: Preliminary data for January to September of 2011

- Excludes generation from embedded and off-grid for the 1st Sem 2011

Ensured Sufficient Supply

Power

- **Issued the following Department Circulars:**
  - **DC-2010-10-0011** – *"Mandating the Rational Utilization of Available Generation Capacity in Mindanao and Directing DOE Attached Agencies, the National Grid Corporation of the Philippines (NGCP) and All Industry Stakeholders to Address the Power Situation in Mindanao"*

Results:

✓ System Operator was authorized to dispatch all available generation capacity

✓ Mindanao ECs signed Power Supply Contract with Therma Marine, Inc.

✓ Addressed rotating brownouts in Mindanao from an average of 2-3 hours daily to zero

Ensured Sufficient Supply

Power

- **DC 2010-05-0006**, issued on May 10, 2010 (*Terminating The Default Wholesale Supplier Arrangement For The Philippine Wholesale Electricity Spot Market (WESM) And Declaring A Disconnection Policy*)

  WESM Rules, Section 2.2.4.2 - *"No person or entity shall be allowed to inject or withdraw electricity from the grid unless that entity or person is a registered member of the WESM"*

- **Results**
  - ✓ Increased registration in the WESM
  - ✓ Facilitated the restructuring of outstanding obligations of distribution utilities from PSALM
  - ✓ Instilled discipline among the industry participants on their obligations

Ensured Sufficient Supply

Power

- *Declaring the Commercial Operation of Wholesale Electricity Spot Market (WESM) in the Visayas Grid and its Integration With The Luzon Grid* (**DC 2010-11-0012** issued on 26 November 2010)

- **Results**

  - ✓ Visayas Grid successfully integrated into the WESM

  - ✓ Supply in Luzon and Visayas improved significantly

    - ❖ New Coal plants boosted supply levels in Cebu, Negros and Panay and eliminated manual load dropping

Ensured Sufficient Supply

Power

- Results

  - Ex-ante system load-weighted average price (LWAP) was PhP3,737/MWh, and ranged from a low of negative PhP410/MWh on 01 January 2011 to as high as PhP61,703/MWh on 12 May 2011.

  - Ex-ante rate is lower than NPC rate

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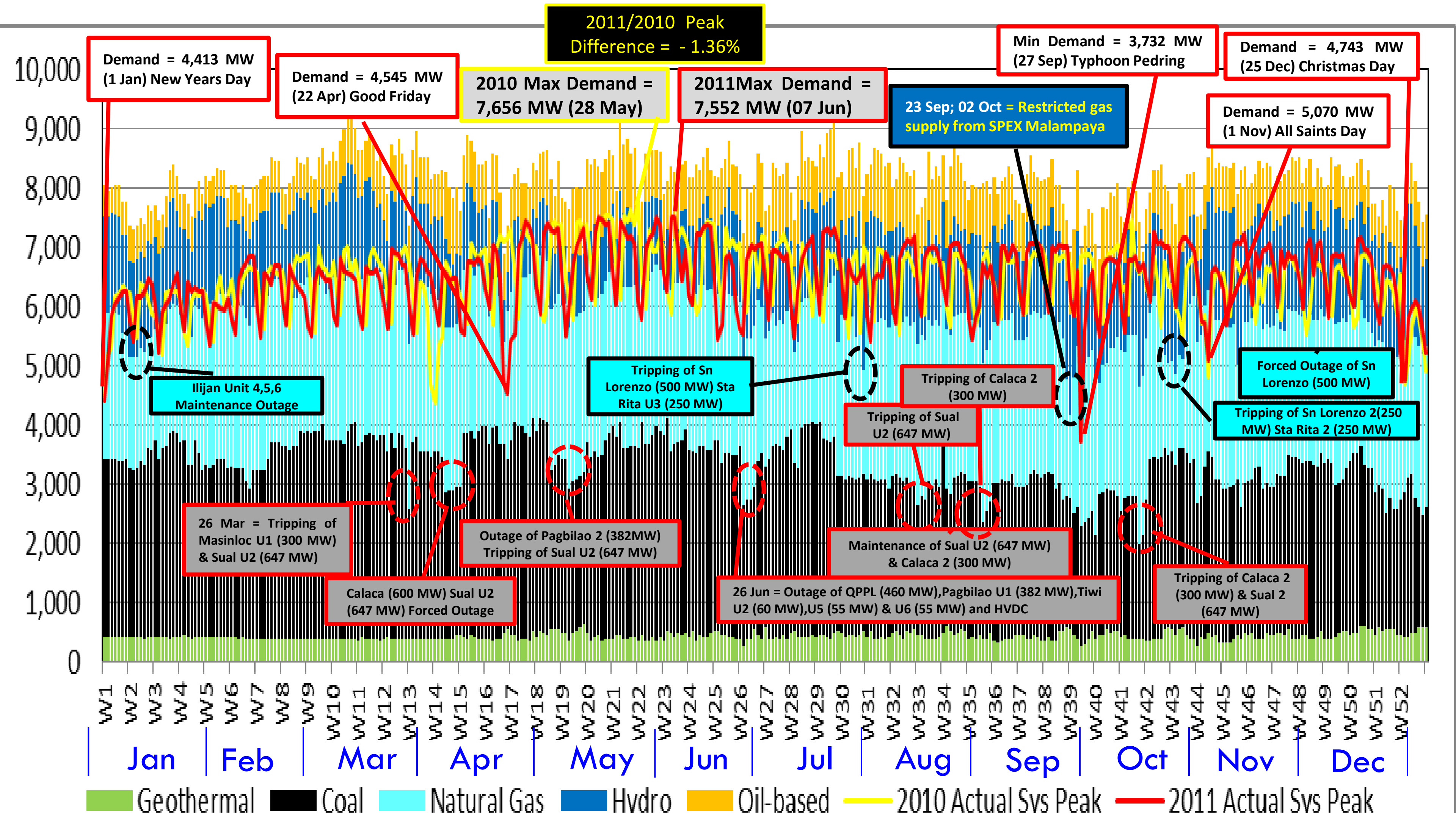
Luzon Grid
Power Supply-Demand Situation

2011 Luzon Grid Supply-Demand Situation

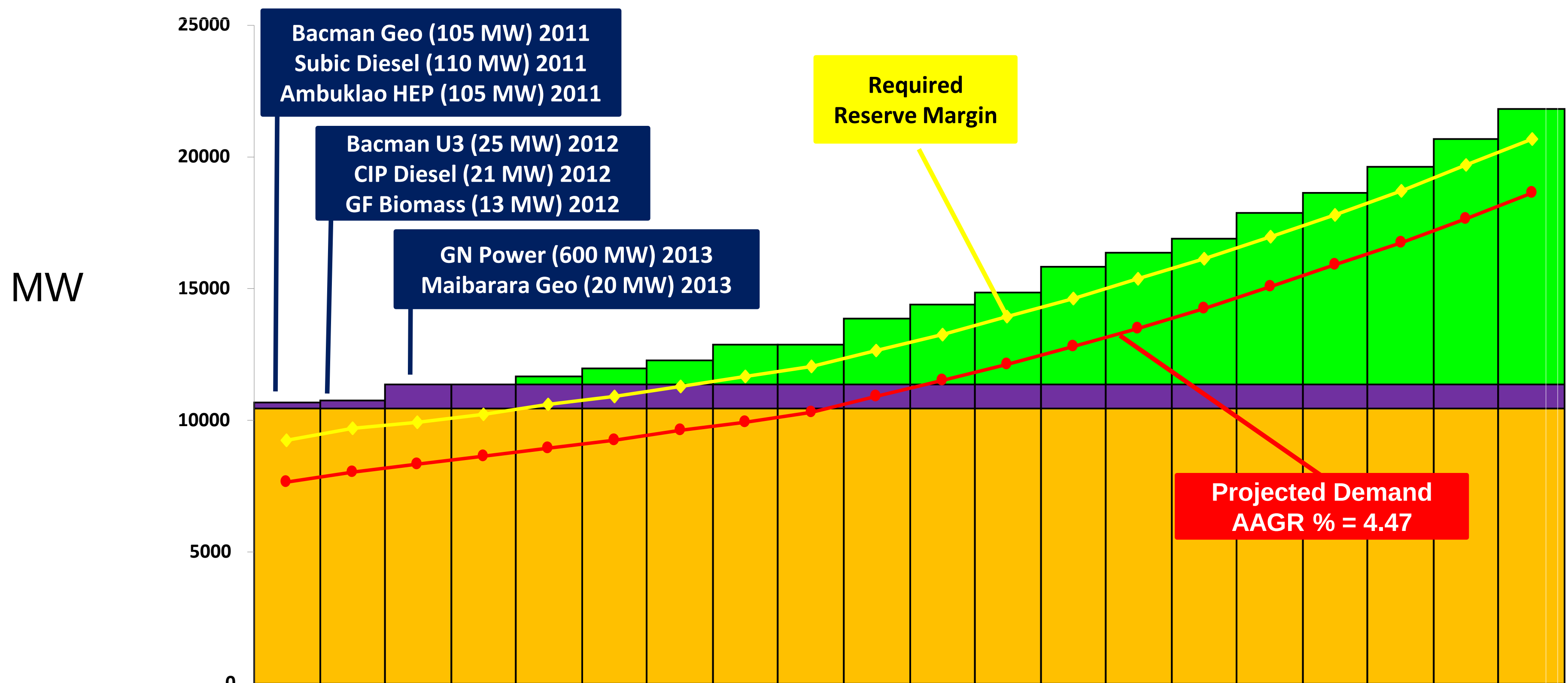


Source of Data: NGCP Daily Operation Report and Daily Operation Highlights

Luzon Grid Supply-Demand Outlook

Luzon Supply-Demand Outlook

Luzon grid needs a total additional capacity of 10,450 MW onwards to 2030

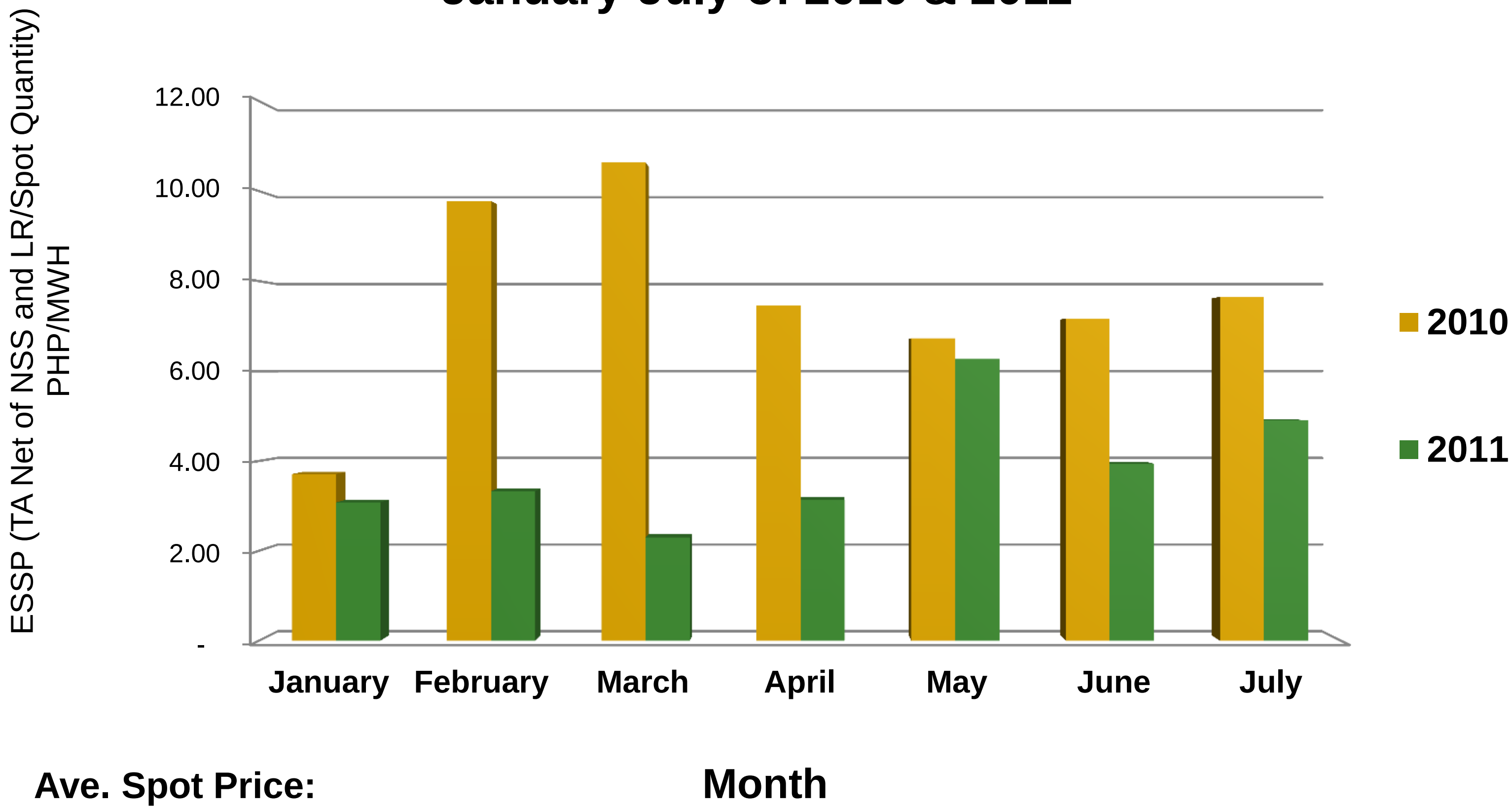


	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Required Additional Capacity					300	300	300	600		1000	500	500	1000	500	500	1000	800	1000	1000	1150
Committed Capacity	320	59	620																	
Existing Capacity	10468	10788	10842	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462	11462
Required Reserve Margin	1601	1616	1627	1639	1651	1664	1677	1692	1707	1730	1754	1779	1806	1834	1864	1896	1929	1964	2001	2040
Peak Demand	7673	8048	8331	8618	8921	9247	9587	9948	10322	10893	11496	12131	12802	13511	14258	15046	15879	16757	17684	18662

Comparative Power Rates 2010 vs 2011

WESM and Meralco

EFFECTIVE SETTLEMENT SPOT PRICE for January-July of 2010 & 2011

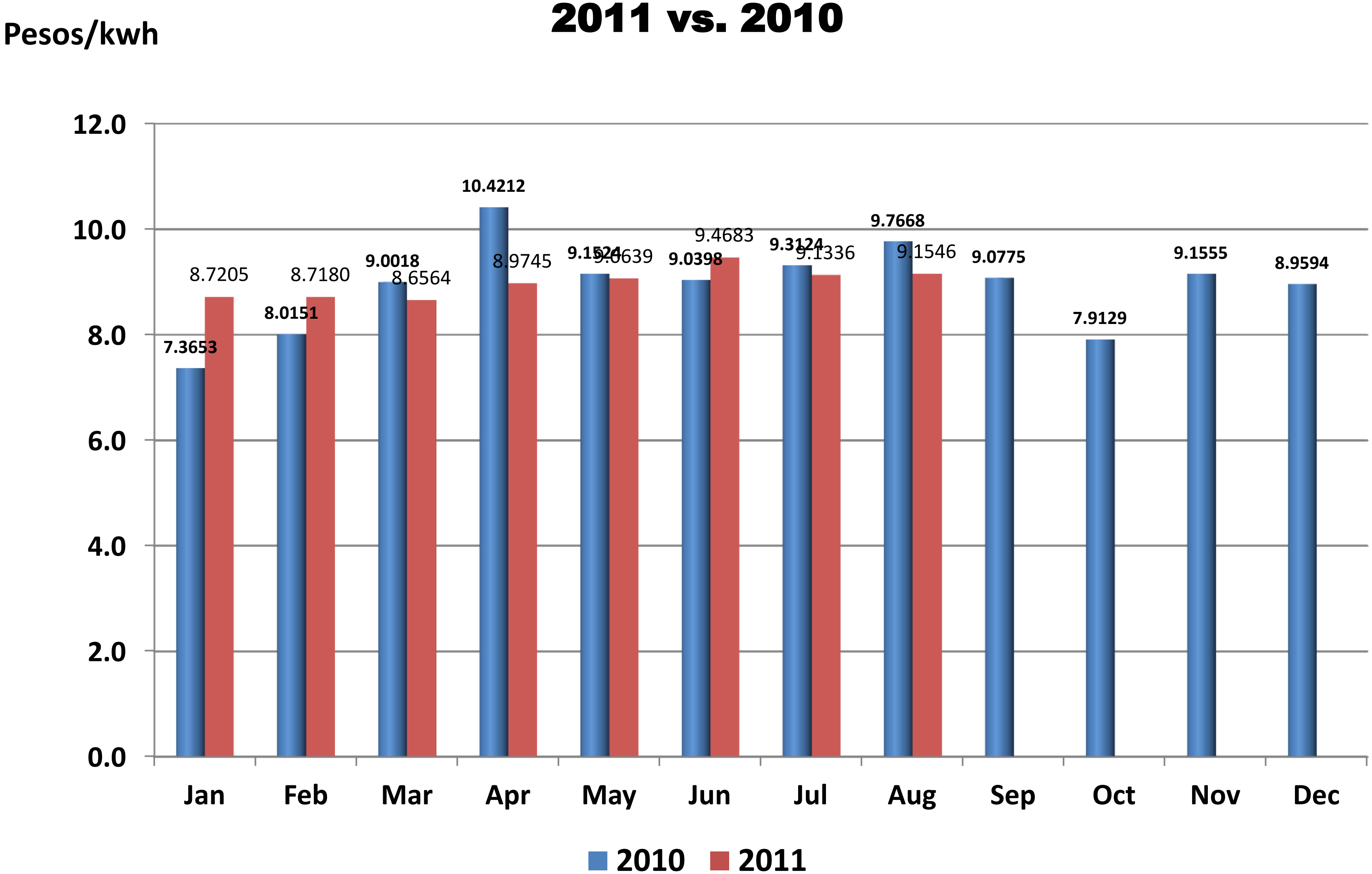


Ave. Spot Price:

2010 – P7.595

2011 – P3.855

MERALCO EFFECTIVE RATES
OVERALL
2011 vs. 2010



Source of Data: MERALCO

Comparative Electricity Tariffs*

Comparative Electricity Tariffs, US$

Rate Particulars	Philippines (MERALCO)	Indonesia	Malaysia	Thailand*
Average Electricity Tariff	0.1984	0.0723	0.1074	0.1037
Estimated Government Subsidy	**0**	**0.0838**	**0.0451**	**0.0881**
Estimated Average Cost	0.1984	0.1561	0.1525	0.1918

*** For residential customers@ 150 kWh**

Comparative Electricity Tariffs (With Subsidy)

Rate Particulars	Philippines (MERALCO)	Philippines (MERALCO)	Philippines (MERALCO)
Estimated Average Cost	0.1984	0.1984	0.1984
Estimated Government Subsidy	**0.0838**	**0.0451**	**0.0881**
Average Electricity Tariff, US$	**0.1146**	**0.1533**	**0.1103**
Average Electricity Tariffs, Php	**5.1698**	**6.9156**	**4.9758**

**USAid Initial Study*

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Consolidated Energy Sector Financial Obligations as of June 2011

OBLIGATIONS (In Billion PhP)	PSALM	NPC	TRANSCO	TOTAL
Outstanding Liabilities	744.63	8.63	0.98	754.24
Contingent Liabilities	22.45	41.00	97.50	160.95
TOTAL	**767.08**	**49.63**	**98.48**	**915.19**

Energy Reform Agenda (ERA)

"Energy Access for More"

A key priority of government to mainstream access to greater majority to reliable energy services and fuel, most importantly, local productivity and countryside development

Good Governance thru stakeholder participation, transparency, multi-sectoral partnership and use of ICT

Ensure Energy Security	**Achieve Optimal Energy Pricing**	**Develop a Sustainable Energy System**

The Philippine Energy Sector

SEC. JOSE RENE D. ALMENDRAS
Department of Energy