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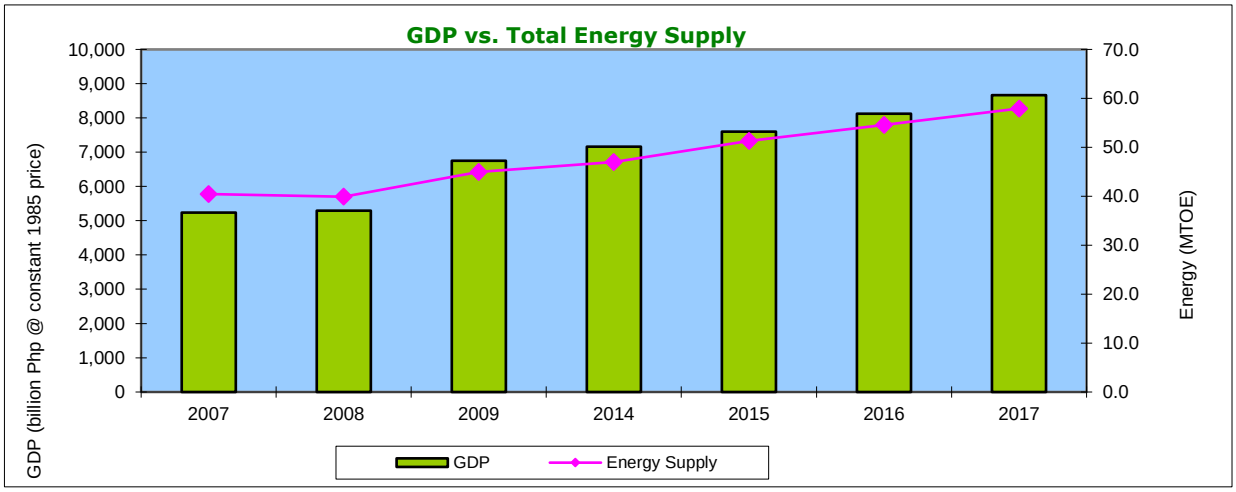
Energy and Economy

Energy and Economic Indicators

	2007	2008	2009	2010	2011	2012
GDP (in billion pesos: at constant 2000 prices)	5,028.3	5,237.1	5,297.2	5,701.5	5,910.2	6,305.2
Total Final Energy Consumption (in MTOE)	23.2	23.3	23.9	25.1	25.2	25.8
Total Primary Energy Supply (in MTOE)	38.5	40.5	39.9	41.0	41.9	43.5
Population (in million)	88.7	89.4	91.0	92.6	94.2	96.5
Forex (in Pesos/USD)	41.4	47.5	46.4	43.9	43.9	41.2
Average Crude Price (in USD / barrel)	68.4	93.6	61.7	78.0	106.2	109.0

	2013	2014	2015	2016	2017	AAGR*
GDP (in billion pesos: at constant 2000 prices)	6,750.6	7,165.5	7,600.2	8,122.7	8,665.7	5.6%
Total Final Energy Consumption (in MTOE)	27.3	28.5	31.0	33.5	35.5	4.4%
Total Primary Energy Supply (in MTOE)	45.0	47.0	51.3	54.6	57.9	4.2%
Population (in million)	98.2	99.9	101.6	103.2	104.9	1.7%
Forex (in Pesos/USD)	44.4	44.6	47.2	49.8	49.9	1.9%
Average Crude Price (in USD / barrel)	105.0	97.0	50.9	42.2	54.2	-2.3%

*AAGR - Average Annual Growth Rate



Sources:
Gross Domestic Product (GDP), Gross National Product (GNP), Population - 2009 Philippine Statistical Yearbook (PSY), *National Statistical Coordination Board (NSCB)*
Foreign Exchange Rate - *Bangko Sentral ng Pilipinas (BSP)*
Energy Supply - Policy Formulation and Research Division (PFRD), DOE
Crude Oil Price - *Oil Industry Management Bureau (OIMB), DOE*

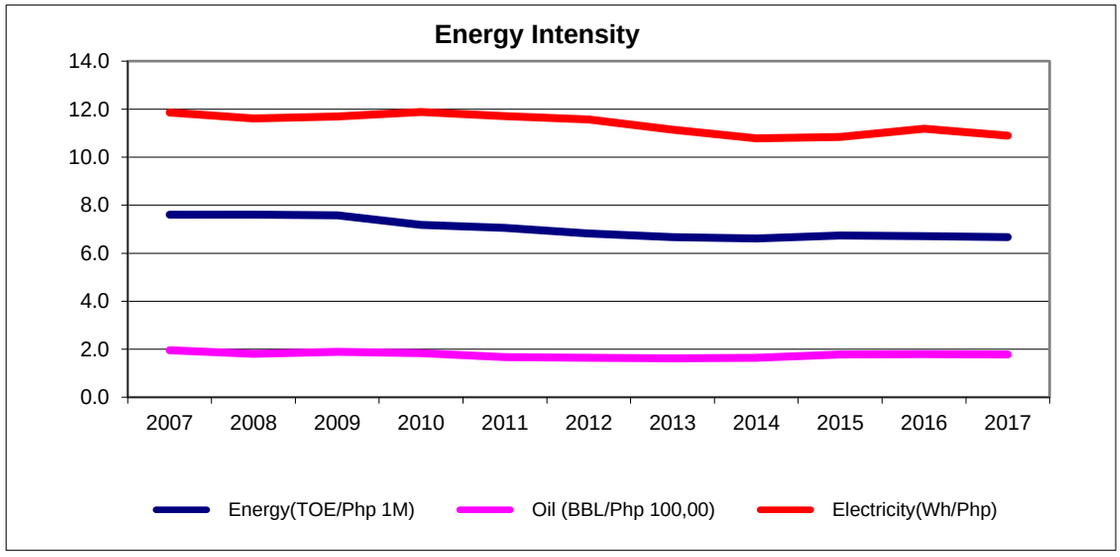
Energy and Economy

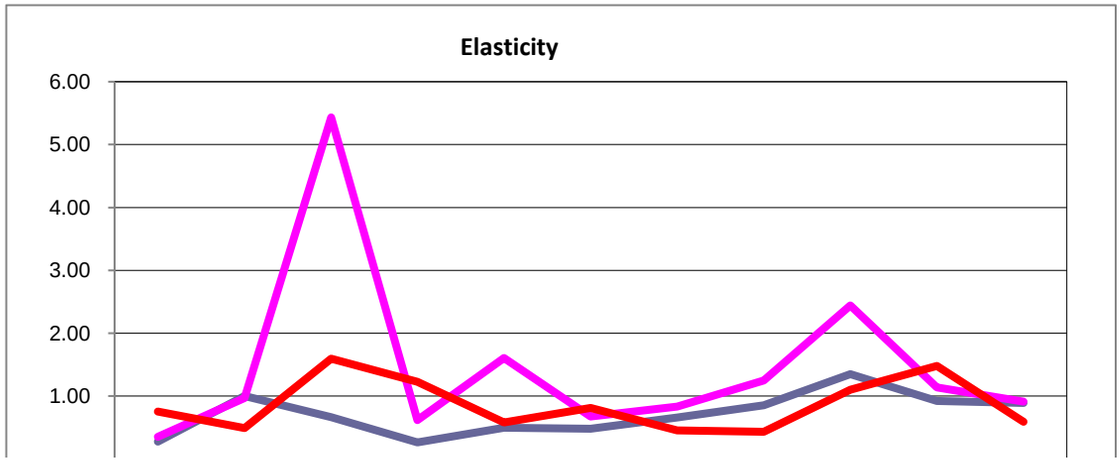
Indicator	2007	2008	2009	2010	2011	2012
Intensity						
Energy to GDP** (TOE/Php 1M)	7.61	7.61	7.58	7.18	7.05	6.82
Oil to GDP (BBL/Php 100,000)	1.96	1.80	1.89	1.84	1.67	1.64
Electricity to GDP (Wh/Php)	11.86	11.61	11.69	11.88	11.70	11.57
Elasticity						
Energy to GDP	0.27	1.00	0.66	0.26	0.50	0.48
Oil to GDP	0.35	0.97	5.43	0.62	1.61	0.67
Electricity to GDP	0.75	0.49	1.59	1.23	0.58	0.81
Energy Per Capita (TOE/person)	0.43	0.45	0.44	0.44	0.44	0.45

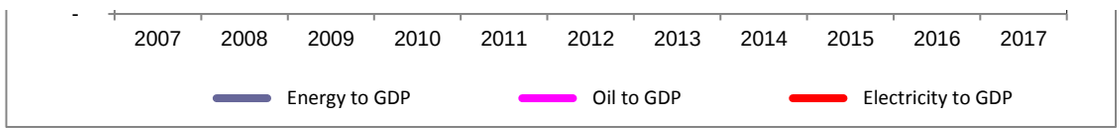
Indicator	2013	2014	2015	2016	2017	AAGR*
Intensity						
Energy to GDP (TOE/Php 1M)	6.67	6.61	6.74	6.71	6.66	-1.3%
Oil to GDP (BBL/Php 100,000)	1.62	1.64	1.78	1.79	1.78	-0.9%
Electricity to GDP (Wh/Php)	11.15	10.78	10.84	11.18	10.89	-0.8%
Elasticity						
Energy to GDP	0.66	0.85	1.35	0.92	0.89	12.6%
Oil to GDP	0.83	1.25	2.44	1.14	0.91	10.0%
Electricity to GDP	0.46	0.43	1.10	1.48	0.59	-2.4%
Energy Per Capita (TOE/person)	0.46	0.47	0.50	0.53	0.55	2.4%

* average annual growth rate

** GDP @ constant 2000 price



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2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Energy to GDP
Oil to GDP
Electricity to GDP

Energy and Environment

GHG Emission by Sector and Activity

$MtCO_2e$ (1)

Sector and Activity	2007	2008	2009	2010	2011	2012
Industry	10.02	11.71	10.09	11.68	11.38	10.54
Transport	22.99	21.13	22.26	22.96	22.75	23.68
Others(2)	5.13	5.28	6.05	5.92	5.90	5.80
Electricy Generation	25.00	27.76	28.27	31.28	32.32	34.58
Energy(3)	1.18	0.98	0.90	1.02	0.94	1.04
Total	**64.33**	**66.86**	**67.57**	**72.85**	**73.29**	**75.64**

Sector and Activity	2013	2014	2015	2016	2017	AAGR*
Industry	12.16	12.68	12.99	15.05	16.41	5.1%
Transport	24.75	25.69	29.71	32.15	33.14	3.7%
Others(2)	6.22	7.04	6.96	8.47	10.01	6.9%
Electricy Generation	40.18	43.07	46.89	50.95	58.24	8.8%
Energy(3)	0.89	1.05	0.91	0.63	0.68	-5.4%
Total	**84.20**	**89.53**	**97.46**	**107.25**	**118.48**	6.3%

Notes:

(1) Million tons of CO_2 Equivalent ($MTCO_2e$)

(2) includes Residential, Commercial and Agriculture Sectors

(3) includes Oil refining, Electricity and other Energy sector own use and losses

(4) average annual growth rate

GHG Emission

$MtCO_2e$

Fuel type	2007	2008	2009	2010	2011	2012
Liquid Fossils (Oil)	36.90	35.17	36.98	38.71	35.88	37.20
Solid Fossils (Coal)	20.33	24.21	23.07	27.05	29.75	31.11
Gaseous Fossil (Natural Gas)	7.10	7.47	7.53	7.09	7.65	7.34
Total	**64.33**	**66.86**	**67.57**	**72.85**	**73.29**	**75.64**

Fuel type	2013	2014	2015	2016	2017	AAGR*
Liquid Fossils (Oil)	38.85	41.50	45.97	49.22	51.15	3.3%
Solid Fossils (Coal)	38.59	40.93	44.81	50.37	59.78	11.4%
Gaseous Fossil (Natural Gas)	6.76	7.11	6.68	7.66	7.55	0.6%
Total	**84.20**	**89.53**	**97.46**	**107.25**	**118.48**	6.3%

*average annual growth rate

Energy and Environment

Environmental Emission Indicators

GHG emission is expressed in carbon dioxide equivalent (CO_2e) which accounts for the global warming potential (GWP) of CH_4 and N_2O, as prescribed by the Inter-governmental Panel on Climate Change (IPCC). GWP is the ratio of the warming resulting from the emission of one kilogram of a greenhouse gas to that of one kilogram emission of CO_2 over a fixed period of time (i.e. CH_4 and N_2O GWP is 21 times and 310 times the CO_2 emission, respectively)

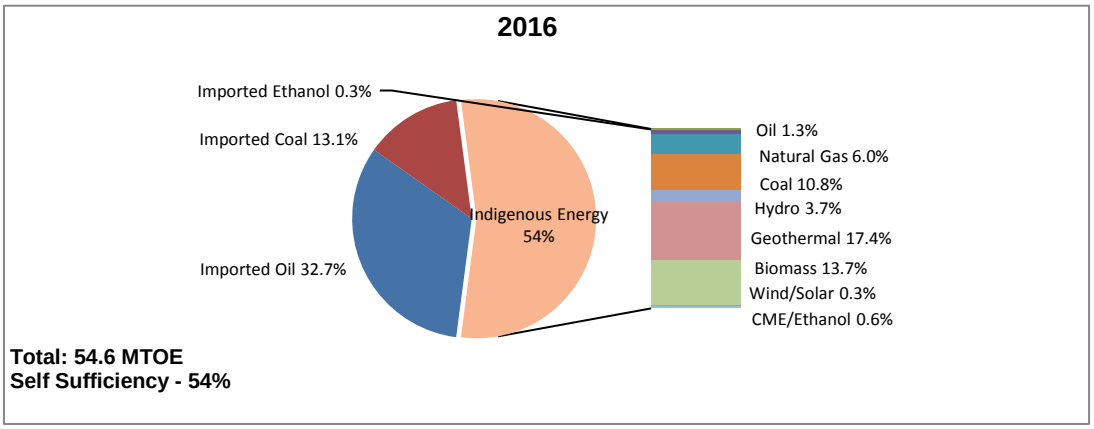
Indicator	2007	2008	2009	2010	2011	2012
GHG emission-to-GDP ratio						
(tCO_2e/PhP 100K, 2000=100)	1.28	1.28	1.28	1.28	1.24	1.20
GHG emission per capita						
(tCO_2e/person)	0.73	0.75	0.74	0.79	0.78	0.78
GHG emission per Electricity Generation						
(tCO_2e/MWh)	0.42	0.46	0.46	0.46	0.47	0.47
GHG emission per Oil consumption						
(tCO_2e/TOE)	2.62	2.50	2.63	2.50	2.61	2.51
GHG emission per TPES						
(tCO_2e/TOE)	1.67	1.65	1.69	1.77	1.75	1.74

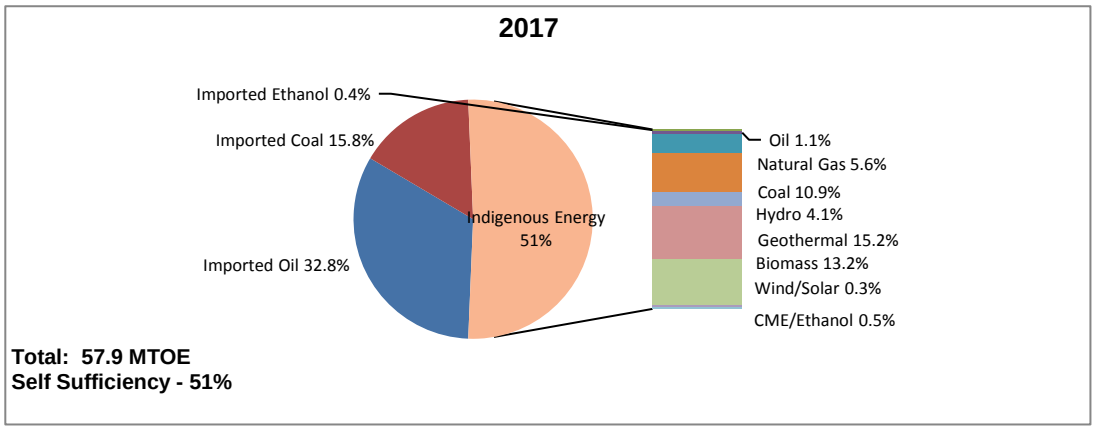
Indicator	2013	2014	2015	2016	2017	AAGR*
GHG emission-to-GDP ratio						
(CO_2e/PhP 1000, 1985=100)	1.25	1.25	1.28	1.32	1.37	0.7%
GHG emission per capita						
(CO_2e/person)	0.86	0.90	0.96	1.04	1.13	4.5%
GHG emission per Electricity Generation						
(CO_2e/MWh)	0.53	0.56	0.57	0.56	0.62	3.9%
GHG emission per Oil consumption						
(CO_2e/TOE)	2.58	2.58	2.41	2.45	2.45	-0.7%
GHG emission per TPES						
(CO_2e/TOE)	1.87	1.91	1.90	1.96	2.05	2.0%

* average annual growth rate

Energy Mix

Primary Energy Supply Mix





Total Energy and Self-Sufficiency

	2007	2008	2009	2010	2011	2012
Indigenous Energy (KTOE)	22,554	23,858	24,590	24,725	25,706	26,248
Oil	625	715	962	916	842	700
Natural Gas	3,033	3,192	3,215	3,028	3,269	3,134
Coal	1,795	1,905	2,474	3,510	3,648	3,874
Hydro	2,132	2,450	2,437	1,943	2,414	2,552
Geothermal	8,783	9,220	8,877	8,538	8,549	8,813
Biomass	6,141	6,315	6,496	6,679	6,874	7,035
Wind/Solar	5	5	6	5	8	7
Biofuels	40	54	125	107	102	134
Imported Energy (KTOE)	15,926	16,599	15,313	16,322	16,145	17,275
Oil	12,319	12,111	11,688	12,693	11,945	12,906
Coal	3,596	4,451	3,593	3,521	4,078	4,210
Biofuels	11	37	33	108	121	159
Total Energy (KTOE)	38,480	40,457	39,904	41,046	41,851	43,524
RE (Ktoe)	17,112	18,083	17,973	17,379	18,068	18,700
Green Energy (RE + Natgas) (Ktoe)	20,145	21,275	21,187	20,407	21,337	21,834
Self Sufficiency (%)	**59**	**59**	**62**	**60**	**61**	**60**

Energy Mix

Primary Energy Supply Mix

	2013	2014	2015	2016	2017	AAGR*
Indigenous Energy (KTOE)	25,469	26,606	26,881	29,405	29,515	2.7%
Oil	680	849	715	702	622	-0.1%
Natural Gas	2,887	3,036	2,854	3,270	3,226	0.6%
Coal	3,747	4,012	3,894	5,917	6,298	13.4%
Hydro	2,494	2,275	2,157	2,019	2,393	1.2%
Geothermal	8,258	8,863	9,496	9,519	8,831	0.1%
Biomass	7,237	7,356	7,431	7,494	7,651	2.2%
Wind/Solar	6	14	76	178	197	44.2%
Biofuels	160	200	258	305	298	22.2%
Imported Energy (KTOE)	19,520	20,383	24,393	25,185	28,419	6.0%
Oil	13,075	13,571	16,496	17,844	19,031	4.4%
Coal	6,255	6,630	7,721	7,169	9,177	9.8%
Biofuels	190	182	176	172	212	34.3%
Total Energy (KTOE)	44,989	46,990	51,274	54,590	57,934	4.2%
RE (Ktoe)	18,345	18,891	19,594	19,687	19,581	1.4%
Green Energy (RE + Natgas) (Ktoe)	21,232	21,927	22,448	22,957	22,807	1.2%
Self Sufficiency (%)	**57**	**57**	**52**	**54**	**51**	

*average annual growth rate

Energy Consumption

*Total Final Energy Consumption, by Sector and Fuel Type

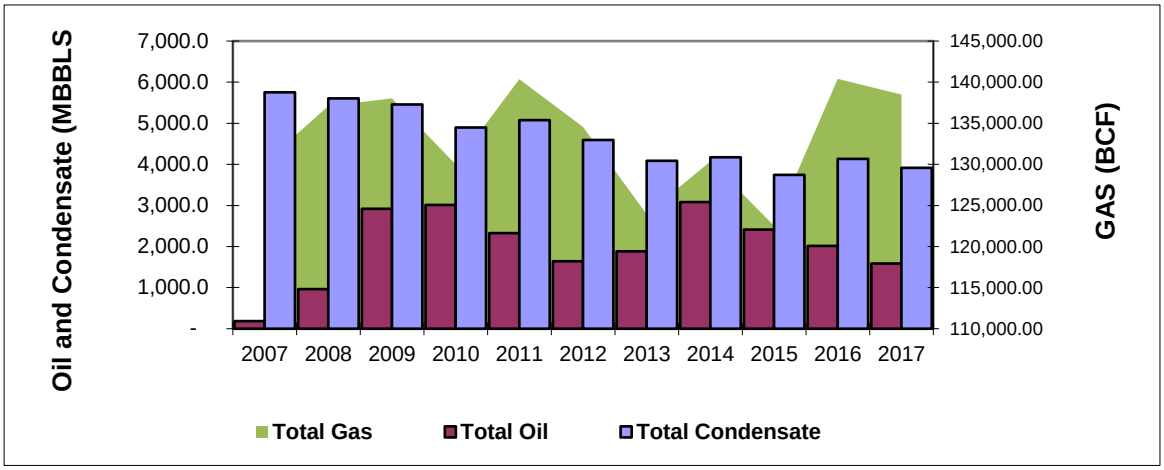
in kTOE

	2007	2008	2009	2010	2011	2012
Industry	**5,262**	**5,778**	**5,369**	**5,948**	**5,948**	**5,806**
Coal	1,331	1,746	1,469	1,841	1,838	1,671
Natgas	77	70	70	69	77	58
Oil	1,504	1,535	1,359	1,402	1,317	1,273
Biomass	925	958	993	1,028	1,047	1,067
Biodiesel	5	5	9	10	6	12
Electricity	1,421	1,464	1,469	1,597	1,662	1,726
Transport	**7,870**	**7,292**	**7,743**	**8,035**	**7,983**	**8,364**
Natgas [(a)]	-	0.38	0.42	0.36	1.08	1.19
Oil	7,817	7,202	7,602	7,843	7,770	8,092
Biodiesel	24	41	86	85	94	89
Bioethanol	20	39	45	98	108	172
Electricity	9	10	10	9	10	10
Residential	**7,251**	**7,377**	**7,633**	**7,878**	**7,991**	**8,171**
Oil	930	894	938	930	916	901
Biomass	4,913	5,051	5,190	5,329	5,468	5,577
Electricity	1,408	1,431	1,505	1,619	1,607	1,693
Commercial	**1,989**	**2,044**	**2,413**	**2,663**	**2,739**	**2,830**
Oil	527	519	826	941	979	965
Biomass	303	306	309	313	318	323
Biodiesel	1.16	2.90	8.88	10.85	12.68	13
Electricity	1,158	1,215	1,269	1,398	1,429	1,529
AFF	**502**	**571**	**501**	**347**	**302**	**318**
Oil	369	458	376	215	186	181
Biodiesel	0.89	1.87	3.80	3.96	1.36	3
Electricity	132	110	121	128	115	133
Total	**22,874**	**23,060**	**23,659**	**24,872**	**24,963**	**25,489**

	2013	2014	2015	2016	2017	AAGR**
Industry	**6,312**	**6,529**	**6,750**	**7,449**	**7,941**	**4.2%**
Coal	2,082	2,261	2,218	2,677	3,008	**8.5%**
Natgas	62	77	50	65	53	-3.7%
Oil	1,278	1,206	1,382	1,458	1,486	-0.1%
Biomass	1,099	1,131	1,152	1,164	1,181	2.5%
Biodiesel	13	11	12	13	15	12.2%
Electricity	1,778	1,843	1,936	2,074	2,199	4.5%
Transport	**8,784**	**9,133**	**10,557**	**11,425**	**11,807**	**4.1%**
Natgas [(a)]	0.81	0.08	-	-	-	-40.1%
Oil	8,460	8,782	10,151	10,986	11,336	3.8%
Biodiesel	92	96	116	121	122	17.8%
Bioethanol	222	246	281	309	339	32.9%
Electricity	10	10	8	9	10	0.4%
Residential	**8,386**	**8,488**	**8,731**	**9,035**	**9,192**	**2.4%**
Oil	880	862	973	1,122	1,159	2.2%
Biomass	5,733	5,823	5,802	5,709	5,731	1.6%
Electricity	1,772	1,803	1,956	2,204	2,303	5.0%
Commercial	**3,038**	**3,397**	**3,370**	**3,865**	**4,404**	**8.3%**
Oil	1,121	1,432	1,292	1,632	2,074	14.7%
Biomass	327	332	337	340	345	1.3%
Biodiesel	15	20	14	21	28	37.2%
Electricity	1,574	1,613	1,727	1,872	1,958	5.4%
AFF	**352**	**354**	**401**	**450**	**516**	**0.3%**
Oil	189	172	194	229	290	-2.4%
Biodiesel	4	3	4	4	5	19.6%
Electricity	160	178	203	218	220	5.2%
Total	**26,872**	**27,901**	**29,809**	**32,224**	**33,861**	**4.0%**

* does not include energy for power application and non-energy use
**average annual growth rate

Oil and Gas Production, by Source



	2007	2008	2009	2010	2011	2012
In MBBLS						
Total Oil	184	965	2,920	3,010	2,326	1,638
Nido	100	88	83	87	75	74
Matinloc	84	46	68	70	51	71
North Matinloc [(a)]	-	-	33.13	18.78	16.11	10.53
Galoc	-	831.00	2,736.32	2,683.61	2,183.14	1,482.66
Tindalo [(b)]	-	-	-	152	-	-
Total Condensate	5,753	5,606	5,457	4,895	5,072	4,594
Malampaya Condensate	5,753	5,606	5,457	4,895	5,072	4,594
in MMSCF						
Total Gas	130,211	137,072	138,030	130,008	140,368	134,563
Libertad [(c)]	-	-	-	-	-	72
San Antonio [(d)]	325	187	-	-	-	-
Malampaya Gas	129,886	136,886	138,030	130,008	140,368	134,491

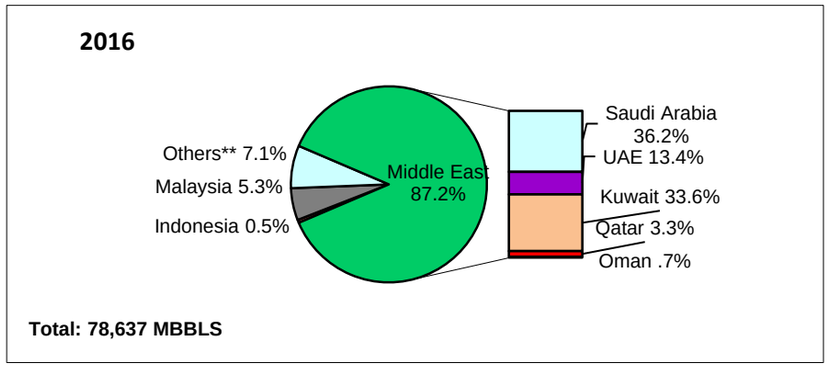
	2013	2014	2015	2016	2017	AAGR*
In MBBLS						
Total Oil	1,884	3,079	2,410	2,014	1,587	24%
Nido	84	79	71	54	56	-6%
Matinloc	66	70	71	73	67	-2%
North Matinloc [a]	10.03	8.87	8.36	9.12	2.10	-29%
Galoc	1,723	2,921	2,260	1,878	1,461	6%
Tindalo [(c)]	-	-	-	-	-	
Total Condensate	4,084	4,173	3,746	4,136	3,914	-4%
Malampaya Condensate	4,084	4,173	3,746	4,136	3,914	-4%
in MMSCF						
Total Gas	123,944	130,351	122,541	140,398	138,497	1%
Libertad [(c)]	79	35	15	-	-	-41%
San Antonio [(d)]	-	-	-	-	-	-43%
Malampaya Gas	123,866	130,316	122,527	140,398	138,497	1%

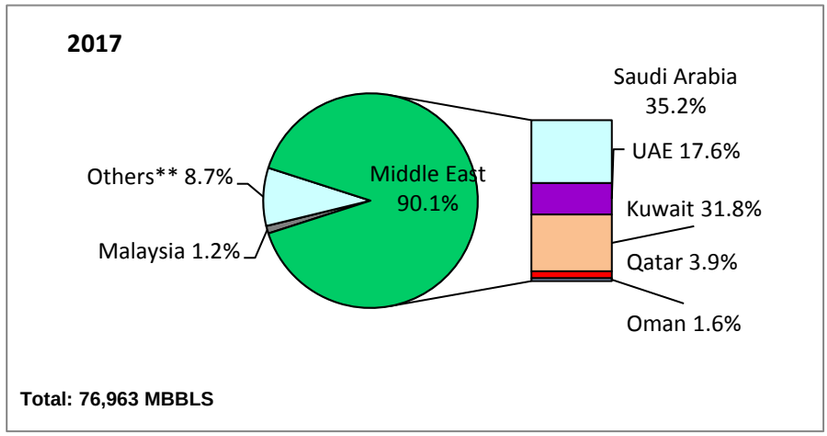
*average annual growth rate

(a) average annual growth rate from 2009 to 2017

(b) only one (1) entry (2010)

Crude Oil Importation, by Country of Source





in MBBLS

Source	2007	2008	2009	2010	2011	2012
Middle East	67,356	61,572	42,243	54,232	52,955	51,032
Saudi Arabia	46,872	46,603	22,578	30,359	30,795	29,784
Iran [(a)]	1,455	1,915	-	819	5,874	-
Iraq [(b)]	-	-	99	-	-	-
Kuwait [(c)]	-	-	-	-	-	-
UAE	14,655	13,054	10,144	18,088	14,730	16,230
Qatar	4,374	-	8,372	4,273	1,551	5,018
Oman [(d)]	-	-	1,050	693	6	-
Yemen	-	-	-	-	-	-
Indonesia	-	22	230	-	-	191
Malaysia	3,577	4,222	4,090	6,864	2,102	2,410
Others**	3,252	3,252	3,497	5,503	14,399	9,930
Total	**74,185**	**69,067**	**50,061**	**66,599**	**69,456**	**63,562**

Source	2013	2014	2015	2016	2017	AAGR*
Middle East	42,727	49,086	67,133	68,537	69,345	0.3%
Saudi Arabia	23,500	37,103	34,427	28,438	27,097	-5.3%
Iran [(a)]	-	-	-	-	-	41.7%
Iraq [(b)]	-	-	-	-	-	
Kuwait [(c)]			16,877	26,448	24,475	20.4%
UAE	9,717	6,403	8,365	10,507	13,549	-0.8%
Qatar	8,459	5,579	7,464	2,618	2,999	-3.7%
Oman [(d)]	-	-	-	524	1,225	1.9%
Yemen	1,050	-	-	-	-	
Indonesia	162	-	-	396	-	43.6%
Malaysia	1,023	3,583	5,747	4,160	886	-13.0%
Others**	12,273	12,194	5,031	5,544	6,732	7.5%
Total	**56,186**	**64,862**	**77,911**	**78,637**	**76,963**	0.4%

*average annual growth rate

(a) average annual growth rate from 2007 to 2011

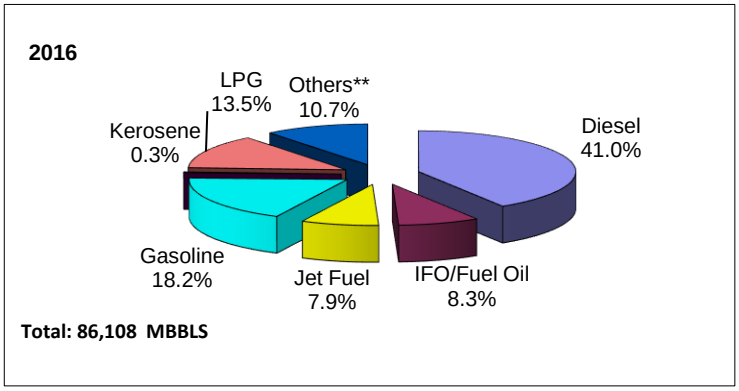
(b) only one (1) entry (2009)

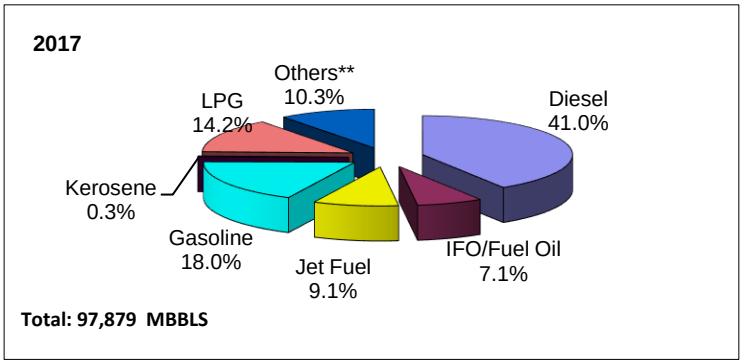
(c) average annual growth rate from 2015 to 2017

(d) average annual growth rate from 2009 to 2017

** includes Singapore, Brunei, Russia, United Kingdom, Vietnam, Korea and Australia

Petroleum Products Importation, by Fuel Type





in MBBLS

Fuel	2007	2008	2009	2010	2011	2012
Diesel	16,444	18,065	23,836	22,368	18,672	24,941
IFO/Fuel Oil	4,755	7,107	5,534	5,660	2,287	1,876
Jet Fuel	3,010	3,310	3,998	3,547	4,838	5,928
Gasoline	11,418	10,794	13,111	12,575	11,248	12,378
Kerosene	409	301	483	289	247	228
LPG	8,889	8,064	9,621	8,758	8,599	8,218
Others**	787	667	1,260	1,411	781	1,211
Total	**45,712**	**48,307**	**57,843**	**54,607**	**46,671**	**54,780**

Fuel	2013	2014	2015	2016	2017	AAGR*
Diesel	26,464	30,343	28,375	35,345	40,105	9%
IFO/Fuel Oil	2,685	4,901	10,129	7,162	6,921	4%
Jet Fuel	6,449	6,579	5,722	6,837	8,928	11%
Gasoline	14,599	14,828	15,148	15,705	17,627	4%
Kerosene	1,490	430	199	252	317	-3%
LPG	9,074	9,299	9,691	11,613	13,910	5%
Others**	1,756	3,279	8,670	9,194	10,073	29%
Total	**62,517**	**69,658**	**77,934**	**86,108**	**97,879**	**8%**

*average annual growth rate

**others include asphalt, solvents, naptha/reformate, condensate

OIL

Total Petroleum Product Importation, by Country of Source

MBBLS

Source	2007	2008	2009	2010	2011	2012
Middle East	**1,560**	**1,329**	**3,378**	**2,257**	**3,177**	**1,597**
Bahrain	-	-	-	-	113	319
Iran	504	586	1,258	643	-	0
KSA	111	74	251	86	429	251
Kuwait	-	-	260	250	361	340
Oman	-	29	-	-	-	-
Qatar	340	365	1,108	619	1,454	48
UAE	606	275	501	659	821	639
ASEAN	**23,349**	**23,132**	**23,518**	**31,933**	**17,729**	**14,275**
Indonesia	684	98	662	484	915	548
Malaysia	3,978	4,261	3,288	2,185	1,145	884
Philippines	4,600	4,541	5,621	5,609	3,720	3,025
Singapore	13,472	13,267	12,894	18,137	8,717	6,011
Thailand	615	923	874	5,269	3,174	3,767
Vietnam	-	42	178	250	58	41
OTHER ASIA	**19,035**	**21,493**	**29,737**	**19,919**	**25,686**	**38,613**
Bangladesh	-	-	229	601	-	-
China	1,367	1,553	3,958	3,076	6,422	5,561
Hong Kong	-	-	182	-	80	266
India	-	255	-	583	-	-
Japan	677	1,333	3,976	1,292	1,018	687
South Korea	5,500	8,384	9,621	5,744	8,124	13,893
Taiwan	11,491	9,968	11,772	8,623	10,042	18,206
OTHERS	**1,768**	**2,353**	**1,210**	**498**	**79**	**295**
Australia	240	1,681	1,172	183	36	173
France	8	1	-	1	0	-
Maldives	-	-	-	203	-	-
Nigeria	182	-	-	-	-	75
Norway	1,333	544	-	-	-	-
Papua New Guinea	-	-	-	87	17	16
USA	7	126	39	25	25	31
Total	**45,712**	**48,307**	**57,843**	**54,607**	**46,671**	**54,780**

OIL

Total Petroleum Product Importation, by Country of Source

MBBLS

Source	2013	2014	2015	2016	2017	AAGR*
Middle East	**2,449**	**1,966**	**1,678**	**6,280**	**5,272**	**13%**
Bahrain	86	-	-	-	-	
Iran	-	-	-	1	3	
KSA	843	551	1,085	1,402	1,081	
Kuwait	504	406	228	692	1,150	
Oman	251	-	135	-	90	
Qatar	276	450	-	1,490	1,263	
UAE	489	559	231	2,695	1,684	
ASEAN	**17,312**	**16,523**	**19,979**	**19,556**	**19,757**	**-2%**
Indonesia	97	697	228	1,610	1,186	
Malaysia	1,835	1,758	7,523	4,572	7,585	
Philippines	4,427	805	-	-	-	
Singapore	7,547	9,982	10,323	12,147	10,269	
Thailand	3,148	2,473	1,272	36	377	
Vietnam	258	808	633	1,192	340	
OTHER ASIA	**42,531**	**50,335**	**53,160**	**58,342**	**67,745**	**14%**
China	8,117	10,504	10,938	24,997	32,535	
Hong Kong	64	1	-	51	158	
India	31	1,064	3,258	2,763	4,686	
Japan	299	368	1,824	4,701	4,320	
Russia	-	-	605	-	-	
South Korea	14,875	21,229	17,886	16,233	22,673	
Taiwan	19,145	16,993	17,674	9,204	2,371	
Pakistan	-	177	975	393	1,002	
OTHERS	**224**	**834**	**3,117**	**1,930**	**5,106**	**11%**
Algeria	-	-	129	-	588	
Angola	-	-	-	-	123	
Australia	44	335	486	123	915	
Brazil	-	-	2	-	-	
Congo	-	-	62	-	-	
Croatia	-	-	-	3	-	
Egypt	-	-	23	-	-	
Equitorial Guinea	-	-	-	-	506	
France	-	-	0	-	-	
Italy	-	-	452	3	-	
Netherlands	6	-	-	-	-	
New Zealand	41	27	0	-	-	
Nigeria	123	291	1,258	548	-	
Papua New Guinea	9	18	-	1,236	1,095	
Switzerland	-	-	2	15	38	
South Africa	-	-	-	0	-	

OIL

Total Petroleum Product Importation, by Country of Source

MBBLS

USA	1	162	702	0	1,842	
Total	**62,517**	**69,658**	**77,934**	**86,108**	**97,879**	**8%**

*average annual growth rate

OIL

Total Petroleum Product Exportation, by Country of Destination

MBBLS

Destination	2007	2008	2009	2010	2011	2012
MIDDLE EAST	**-**	**-**	**-**	**6**	**9**	**-**
UAE	-	-	-	6	9	-
ASEAN	**10,532**	**11,075**	**5,897**	**4,034**	**5,574**	**2,870**
Indonesia	185	133	230	-	36	19
Malaysia	40	448	320	188	516	667
Myanmar	-	19	-	-	-	-
Singapore	7,179	9,533	3,117	3,255	4,030	1,737
Thailand	3,128	941	1,957	591	991	446
Vietnam	-	-	274	-	-	-
OTHER ASIA	**3,467**	**5,015**	**4,881**	**7,991**	**7,888**	**6,524**
China	1,888	1,143	1,244	1,137	970	315
Hong Kong	802	240	296	-	396	678
India	-	8	-	32	141	-
Japan	-	169	-	456	101	-
South Korea	344	1,321	1,423	4,691	4,416	4,284
Taiwan	433	2,134	1,919	1,675	1,852	1,249
Pakistan	0	0	0	0	11	0
OTHERS	**4,674**	**1,743**	**-**	**-**	**-**	**1**
Australia	3,405	1,515	-	-	-	-
New Zealand	1,269	227	-	-	-	-
Saipan	-	-	-	-	-	1
Total	**18,673**	**17,833**	**10,779**	**12,031**	**13,470**	**9,395**

Destination	2013	2014	2015	2016	2017	AAGR*
MIDDLE EAST [(a)]	**-**	**-**	**-**	**-**	**122**	**53%**
UAE	-	-	-	-	122	

Petroleum Products Consumption, by Sector and Fuel Type

MBBLS

	2007	2008	2009	2010	2011	2012
Industry	**11,016**	**11,305**	**10,041**	**10,310**	**9,886**	**9,648**
Kerosene	131	63	158	151	155	138
LPG	886	965	825	700	1,147	1,169
Diesel	3,453	4,198	3,535	3,727	4,274	4,461
Fuel Oil	6,511	6,039	5,451	5,655	4,263	3,789
Biodiesel	35	40	72	76	48	91
Transport	**69,393**	**65,017**	**68,651**	**71,115**	**71,532**	**74,568**
Gasoline	21,663	19,932	21,861	23,484	23,152	23,882
Diesel	32,516	31,175	32,504	32,423	32,099	33,794
Fuel Oil	5,436	3,539	2,726	3,008	3,003	2,418
Aviation Fuel	8,886	8,883	9,487	9,647	10,845	11,432
LPG	486	736	907	800	495	420
Bioethanol	222.95	440.86	506.79	1,098.68	1,216.41	1,934.91
Biodiesel	183	311	659	656	721	686
Residential	**9,551**	**9,247**	**9,757**	**9,712**	**9,605**	**9,461**
LPG	8,118	8,048	8,667	8,710	8,726	8,637
Kerosene	1,433	1,199	1,090	1,001	880	825
Commercial	**4,521**	**4,348**	**6,798**	**7,720**	**8,005**	**7,894**
LPG	2,144	1,760	2,157	2,335	2,256	2,209
Diesel	1,337	1,389	3,370	4,075	4,646	4,693
Fuel Oil	1,030	1,176	1,202	1,226	1,005	896
Biodiesel	9	22	68	83	97	96
AFF	**2,859**	**3,566**	**2,949**	**1,631**	**1,390**	**1,376**
Gasoline	1,336	1,688	1,432	62	33	56
Kerosene	9	3	4	7	6	9
Diesel	1,389	1,758	1,427	1,486	1,300	1,253
Fuel Oil	118	103	57	47	41	32
Biodiesel	7	14	29	30	10	26
Power Generation	**6,772**	**7,123**	**8,327**	**10,463**	**5,608**	**6,847**
Diesel	1,565	1,729	1,935	2,447	1,342	1,431
Fuel Oil	5,200	5,378	6,352	7,966	4,256	5,386
Biodiesel	8	15	40	50	11	29
Non-Energy Use	**644**	**593**	**776**	**858**	**830**	**1,198**
Total	**104,755**	**101,199**	**107,299**	**111,809**	**106,857**	**110,991**

Petroleum Products Consumption, by Sector and Fuel Type

MBBLS

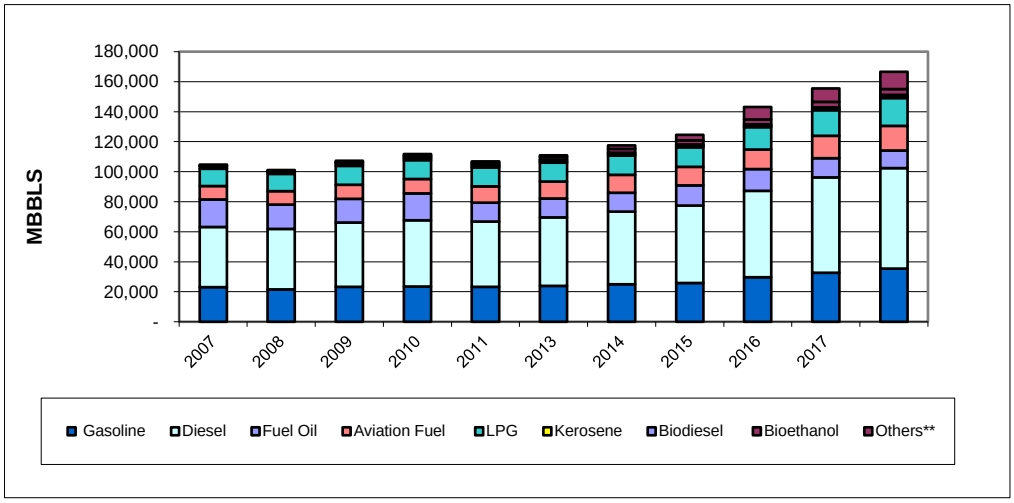
	2013	2014	2015	2016	2017	AAGR*
Industry	**9,727**	**9,224**	**10,528**	**11,046**	**11,129**	**0.1%**
Kerosene	120	126	139	148	170	**1143217.1%**
LPG	1,203	1,387	1,528	1,412	924	**0.4%**
Diesel	4,863	3,975	4,357	4,869	5,509	**4.8%**
Fuel Oil	3,442	3,649	4,413	4,520	4,413	**-3.8%**
Biodiesel	99.24	86.19	92.30	97.25	112.45	**12.2%**
Transport	**77,985**	**79,996**	**91,891**	**99,456**	**105,148**	**4.2%**
Gasoline	24,940	25,795	29,601	32,568	35,411	**5.0%**
Diesel	34,715	36,097	43,435	45,749	46,128	**3.6%**
Fuel Oil	2,458	1,690	1,386	1,707	2,265	**-8.4%**
Aviation Fuel	12,049	12,463	13,086	14,879	16,474	**6.4%**
LPG	621	453	321	146	112	**-13.6%**
Bioethanol	2,496	2,765	3,168	3,477	3,818	**32.9%**
Biodiesel	705	734	893	929	940	**17.8%**
Residential	**9,233**	**9,074**	**10,301**	**11,938**	**12,342**	**2.6%**
LPG	8,413	8,343	9,632	11,314	11,749	**3.8%**
Kerosene	820	731	669	624	593	**-8.4%**
Commercial	**9,163**	**11,641**	**10,692**	**13,456**	**17,357**	**14.4%**
LPG	2,477	2,890	3,360	4,054	5,767	**10.4%**
Diesel	5,764	7,819	6,262	7,853	10,368	**22.7%**
Fuel Oil	804	780	959	1,390	1,011	**-0.2%**
Biodiesel	117.64	150.84	111.26	158.43	211.61	**37.2%**
AFF	**1,429**	**1,306**	**1,471**	**1,731**	**2,202**	**-2.6%**
Gasoline	17	37	66	61	98	**-23.0%**
Kerosene	7	3	3	5	3	**-9.8%**
Diesel	1,349	1,227	1,355	1,577	2,008	**3.8%**
Fuel Oil	27	13	18	56	52	**-7.9%**
Biodiesel	27.53	25.94	28.85	31.80	40.98	**19.6%**
Power Generation	**7,608**	**9,762**	**9,976**	**8,833**	**6,965**	**0.3%**
Diesel	1,827	2,477	2,137	3,573	2,926	**6.5%**
Fuel Oil	5,744	7,233	7,793	5,188	3,979	**-2.6%**
Biodiesel	37.28	52.34	45.46	72.08	59.72	**22.5%**
Non-Energy Use	**2,345**	**3,501**	**8,368**	**8,954**	**11,397**	**33.3%**
Total	**117,489**	**124,503**	**143,226**	**155,414**	**166,539**	**4.7%**

**average annual growth rate

Petroleum Products Consumption, by Sector and Fuel Type

MBBLS

Petroleum Products Consumption, by Type



MBBLS

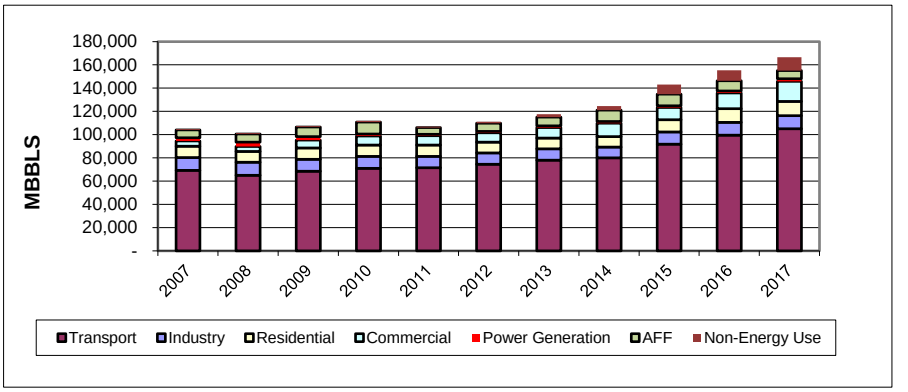
	2007	2008	2009	2010	2011	2012
Gasoline	22,999	21,620	23,293	23,545	23,185	23,938
Diesel	40,260	40,249	42,770	44,158	43,660	45,632
Fuel Oil	18,294	16,235	15,789	17,901	12,568	12,521
Aviation Fuel	8,886	8,883	9,487	9,647	10,845	11,432
LPG	11,634	11,510	12,557	12,546	12,624	12,434
Kerosene	1,573	1,265	1,252	1,159	1,041	971
Biodiesel	242	403	868	896	887	929
Bioethanol	223	441	507	1,099	1,216	1,935
Others**	644	593	776	858	830	1,198
Total	**104,755**	**101,199**	**107,299**	**111,809**	**106,857**	**110,991**

	2013	2014	2015	2016	2017	AAGR*
Gasoline	24,957	25,833	29,667	32,630	35,509	4.4%
Diesel	48,518	51,595	57,545	63,622	66,939	5.2%
Fuel Oil	12,475	13,364	14,568	12,862	11,719	-4.4%
Aviation Fuel	12,049	12,463	13,086	14,879	16,474	6.4%
LPG	12,714	13,073	14,842	16,926	18,552	4.8%
Kerosene	947	860	811	777	767	-6.9%
Biodiesel	987	1,049	1,171	1,289	1,364	18.9%
Bioethanol	2,496	2,765	3,168	3,477	3,818	32.9%
Others**	2,345	3,501	8,368	8,954	11,397	33.3%
Total	**117,489**	**124,503**	**143,226**	**155,414**	**166,539**	4.7%

*average annual growth rate

** includes asphalts, solvents, naptha/reformate, condensate

Petroleum Products Consumption, by Sector



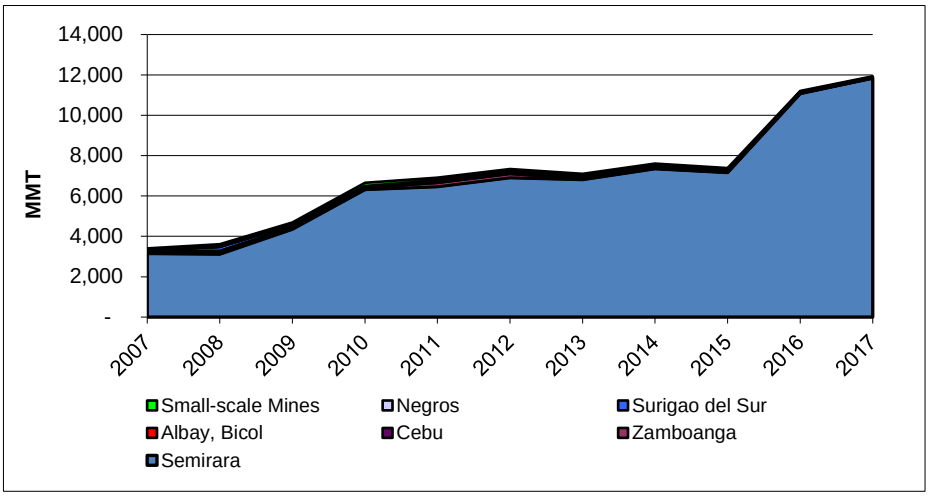
MBBLS

	2007	2008	2009	2010	2011	2012
Transport	69,393	65,017	68,651	71,115	71,532	74,568
Industry	11,016	11,305	10,041	10,310	9,886	9,648
Residential	9,551	9,247	9,757	9,712	9,605	9,461
Commercial	4,521	4,348	6,798	7,720	8,005	7,894
Power Generation	2,859	3,566	2,949	1,631	1,390	1,376
AFF	6,772	7,123	8,327	10,463	5,608	6,847
Non-Energy Use	644	593	776	858	830	1,198
Total	**104,755**	**101,199**	**107,299**	**111,809**	**106,857**	**110,991**

	2013	2014	2015	2016	2017	AAGR*
Transport	77,985	79,996	91,891	99,456	105,148	4.2%
Industry	9,727	9,224	10,528	11,046	11,129	0.1%
Residential	9,233	9,074	10,301	11,938	12,342	2.6%
Commercial	9,163	11,641	10,692	13,456	17,357	14.4%
Power Generation	1,429	1,306	1,471	1,731	2,202	-2.6%
AFF	7,608	9,762	9,976	8,833	6,965	0.3%
Non-Energy Use	2,345	3,501	8,368	8,954	11,397	33.3%
Total	**117,489**	**124,503**	**143,226**	**155,414**	**166,539**	4.7%

**average annual growth rate

Coal Production, by Source



in MMT

	2007	2008	2009	2010	2011	2012
Semirara	3,148	3,124	4,362	6,318	6,471	6,911
Zamboanga [(a)]	121	71	34	81	180	193
Cebu	17	35	27	67	83	60
Albay, Bicol	26	51	49	31	17	18
Surigao del Sur	10	207	105	3	23	21
Negros	1	1	-	1	2	0
Small-scale Mines	79	119	110	148	134	138
Total Production*	**3,401**	**3,609**	**4,687**	**6,650**	**6,911**	**7,340**

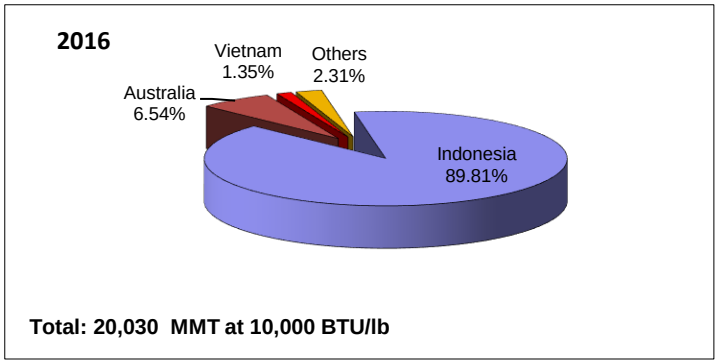
	2013	2014	2015	2016	2017	AAGR*
Semirara	6,813	7,345	7,168	11,084	11,839	14.2%
Zamboanga (a)	30	15	5	0.43	-	-46.6%
Cebu	66	44	29	35	13	-2.6%
Albay, Bicol	23	21	28	16	12	-7.2%
Surigao del Sur	52	50	28	21	23	9.3%
Negros	-	-	-	-	0.49	-6.5%
Small-scale Mines	116	127	119	54	44	-5.6%
Total Production*	**7,100**	**7,601**	**7,378**	**11,211**	**11,932**	13.4%

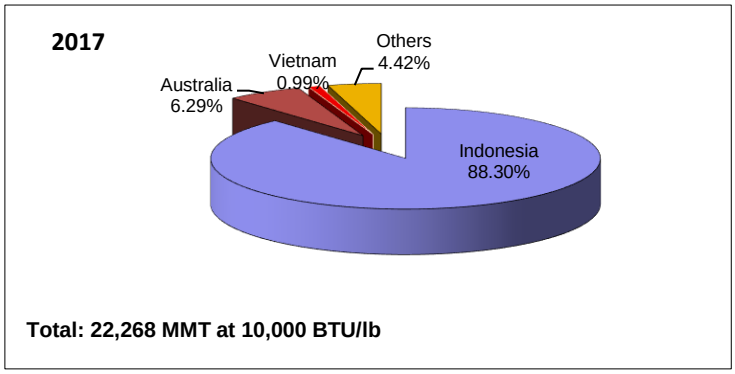
*Run-Of-Mine

**average annual growth rate

(a) average annual growth rate from 2007 to 2016

Coal Importation, by Country of Source





in MMT at 10,000 BTU/lb

Country	2007	2008	2009	2010	2011	2012
Indonesia	5,566	7,125	6,381	10,602	10,894	11,700
Australia	650	330	-	65	-	195
China [(a)]	1,040	1,170	527	18	-	-
Vietnam	473	393	118	278	68	0
Others [(b)]	-	60	-	3	-	-
Total	**7,729**	**9,078**	**7,027**	**10,966**	**10,963**	**11,895**

Country	2013	2014	2015	2016	2017	AAGR*
Indonesia	13,964	14,975	16,673	17,988	19,663	13.5%
Australia	201	-	306	1,310	1,401	8.0%
China [(a)]	-	-	-	-	-	-74.1%
Vietnam	249	191	168	270	219	-7.4%
Others [(b)]	-	15	132	462	984	36.5%
Total	**14,415**	**15,182**	**17,279**	**20,030**	**22,268**	**11.2%**

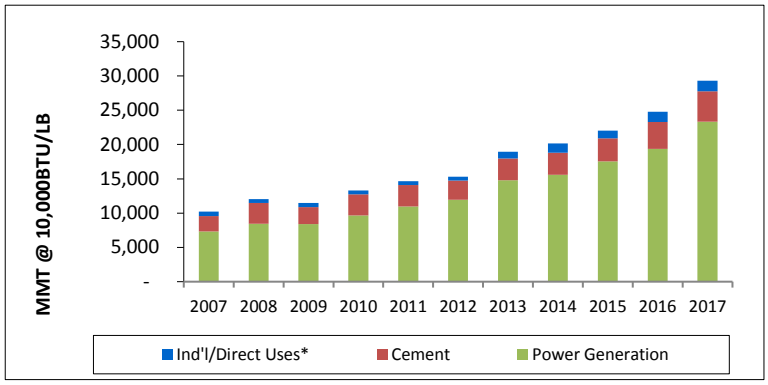
*average annual growth rate (AAGR)

(a) AAGR is from 2007 to 2010

(b) AAGR is from 2008 to 2017

- Others - from Russia, Taiwan, South Korea, South Africa and USA

Coal Consumption, by Major Type of User



in MMT at 10,000 BTU/lb

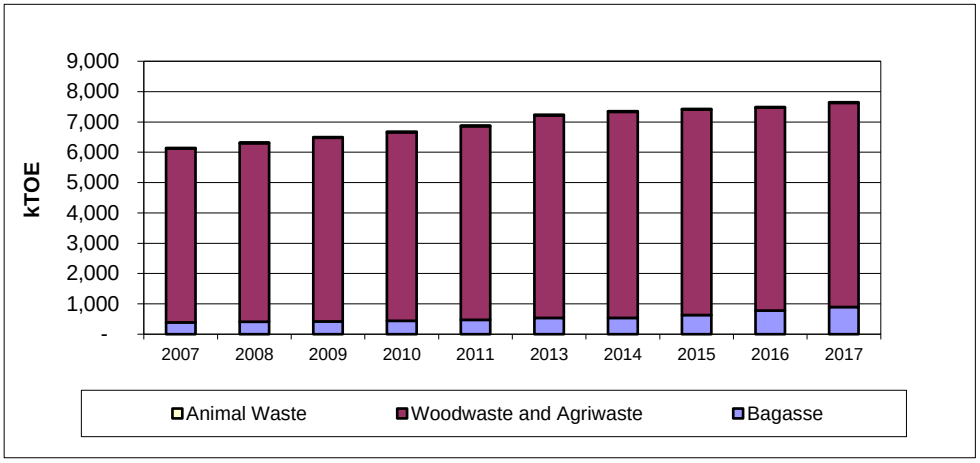
	2007	2008	2009	2010	2011	2012
Power Generation	7,347	8,447	8,416	9,643	10,961	11,937
Cement	2,240	3,012	2,450	3,118	3,127	2,799
Ind'l/Direct Uses*	628	583	628	559	551	581
TOTAL	**10,215**	**12,043**	**11,494**	**13,321**	**14,639**	**15,317**

	2013	2014	2015	2016	2017	AAGR**
Power Generation	14,791	15,587	17,554	19,386	23,327	12.2%
Cement	3,156	3,203	3,348	3,893	4,423	7.0%
Ind'l/Direct Uses*	1,005	1,372	1,104	1,515	1,569	9.6%
TOTAL	**18,952**	**20,163**	**22,006**	**24,794**	**29,320**	11.1%

*non-energy use as raw materials

**average annual growth rate

Biomass Production, by Fuel Type



in kTOE

	2007	2008	2009	2010	2011	2012
Bagasse	391.6	407.2	423.5	445.5	477.3	515.3
Woodwaste and Agriwaste	5,733.1	5,891.4	6,054.5	6,215.3	6,377.7	6,500.4
Ricehull	48.4	48.9	49.6	51.1	51.8	52.5
Charcoal	793.7	834.8	875.9	917.1	958.3	1,004.9
Fuelwood	4,071.1	4,157.8	4,244.5	4,331.3	4,418.8	4,482.8
Municipal Waste [(a)]	-	-	4.0	4.2	12.7	10.7
Agriwaste	819.8	849.9	880.6	911.7	936.1	949.4
Animal Waste	16.2	16.8	17.5	18.2	18.6	18.9
Total	**6,140.8**	**6,315.5**	**6,495.6**	**6,679.0**	**6,873.5**	**7,034.6**

	2013	2014	2015	2016	2017	AAGR*
Bagasse	533.0	539.8	627.3	780.3	898.9	8.7%
Woodwaste and Agriwaste	6,684.1	6,796.3	6,782.9	6,692.8	6,730.9	1.6%
Ricehull	53.5	54.6	55.3	55.8	56.7	1.6%
Charcoal	1,058.3	1,107.4	1,137.8	1,193.0	1,235.8	4.5%
Fuelwood	4,574.8	4,623.2	4,596.4	4,472.0	4,464.7	0.9%
Municipal Waste [(a)]	17.4	19.0	11.1	5.2	6.1	5.5%
Agriwaste	980.1	992.1	982.4	966.9	967.6	1.7%
Animal Waste	19.6	20.2	20.6	20.8	21.1	2.7%
Total	**7,236.7**	**7,356.3**	**7,430.8**	**7,494.0**	**7,650.9**	2.2%

*average annual growth rate

(a) average annual growth rate from 2009 to 2017

Geothermal

	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (Cumulative, MW)	1,958	1,958	1,953	1,966	1,783	1,848
Dependable Generating Capacity (Cumulative, MW)	1,667	1,388	1,321	1,351	1,434	1,462
Electricity Generation (GWh)	10,215	10,723	10,324	9,929	9,942	10,250

	2013	2014	2015	2016	2017
Installed Generating Capacity (Cumulative, MW)	1,868	1,918	1,917	1,916	1,916
Dependable Generating Capacity (Cumulative, MW)	1,482	1,607	1,601	1,689	1,752
Electricity Generation (GWh)	9,605	10,308	11,044	11,070	10,270

Hydropower

	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (MW)	3,293	3,291	3,291	3,400	3,491	3,521
Dependable Generating Capacity (Cumulative, MW)	2,962	2,950	2,914	3,021	2,963	2,983
Electricity Generation (GWh)	8,563	9,843	9,788	7,803	9,698	10,252

	2013	2014	2015	2016	2017
Installed Generating Capacity (MW)	3,521	3,543	3,600	3,618	3,627
Dependable Generating Capacity (Cumulative, MW)	2,983	2,982	3,073	3,181	3,269
Electricity Generation (GWh)	10,019	9,137	8,665	8,111	9,611

Wind

	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (MW)	25	33	33	33	33	33
Dependable Generating Capacity (Cumulative, MW)	9	33	33	20	33	17
Electricity Generation (GWh)	58	61	64	62	88	75

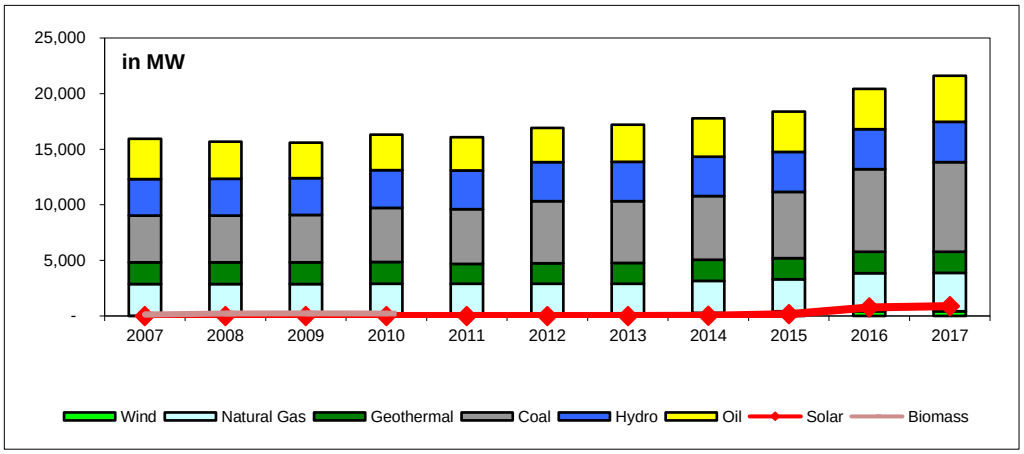
	2013	2014	2015	2016	2017
Installed Generating Capacity (MW)	33	283	427	427	427
Dependable Generating Capacity (Cumulative, MW)	17	103	379	383	383
Electricity Generation (GWh)	66	152	748	975	1,094

Solar

	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (MW)	1	1	1	1	1	1

Dependable Generating Capacity (Cumulative, MW)	1	1	1	1	1	0
Electricity Generation (GWh)	1	1	1	1	1	1

Installed Generating Capacity, by Source



in MW

	2007	2008	2009	2010	2011	2012
Total Installed Capacity	15,941	15,681	15,610	16,358	16,162	17,025
Oil	3,616	3,353	3,193	3,193	2,994	3,074
Hydro	3,293	3,291	3,291	3,400	3,491	3,521
Geothermal	1,958	1,958	1,953	1,966	1,783	1,848
Coal	4,213	4,213	4,277	4,867	4,917	5,568
Natural Gas	2,834	2,831	2,831	2,861	2,861	2,862
Wind	25	33	33	33	33	33
Solar[(a)]	1	1	1	1	1	1
Biomass [(b)]	-	-	30	38	83	119

	2013	2014	2015	2016	2017	AAGR*
Total Installed Capacity	17,325	17,944	18,765	21,423	22,728	3.6%
Oil	3,353	3,476	3,610	3,616	4,153	1.4%
Hydro	3,521	3,543	3,600	3,618	3,627	1.0%
Geothermal	1,868	1,918	1,917	1,916	1,916	-0.2%
Coal	5,568	5,708	5,963	7,419	8,049	6.7%
Natural Gas	2,862	2,862	2,862	3,431	3,447	2.0%
Wind	33	283	427	427	427	50.0%
Solar[(a)]	1	23	165	765	885	237.7%
Biomass [(b)]	119	131	221	233	224	28.5%

*average annual growth rate

(a) average annual growth rate from 2014 to 2017

(b) average annual growth rate from 2009 to 2017

Power Generation, by Source and Grid

in GWh

Luzon	2007	2008	2009	2010	2011	2012
Coal	14,418	13,504	14,091	20,047	19,681	21,878
Oil	2,192	1,928	1,864	3,287	1,291	1,800
Natural Gas	18,789	19,576	19,887	19,518	20,591	19,642
Hydro	4,562	5,400	5,549	4,014	4,836	5,292
Geothermal	3,601	3,730	3,516	3,323	3,486	3,588
Wind	57.84	61.39	64.43	61.72	88.20	75.34
Biomass [a]	-	-	2.75	14.37	43.64	36.84
Total	**43,620**	**44,200**	**44,975**	**50,265**	**50,017**	**52,312**

Luzon	2013	2014	2015	2016	2017	AAGR*
Coal	25,756	27,346	29,680	33,143	33,953	32%
Oil	1,601	2,342	1,845	2,562	2,385	-19%
Natural Gas	18,783	18,686	18,878	19,854	20,547	16%
Hydro	5,156	4,357	4,769	5,011	5,724	5%
Geothermal	3,398.60	3,817.33	4,096.45	4,226.91	3,909.70	52%
Wind	66	152	592	767	496	24%
Biomass [a]	59.70	65.28	187.19	438.81	920.38	81%
Solar [b]	-	-	66.43	494.95	577.68	195%
Total	**54,820**	**56,766**	**60,113**	**66,498**	**68,512**	5%

Visayas	2007	2008	2009	2010	2011	2012
Coal	848	746	822	1,529	4,032	4,701
Oil	1,477	1,665	1,864	1,727	683	734
Hydro	29	40	42	36	53	46
Geothermal	5,747	6,199	5,985	5,771	5,616	5,930
Biomass [a]	-	-	10.96	12.90	71.64	70.84
Total	**8,102**	**8,650**	**8,724**	**9,075**	**10,456**	**11,483**

Visayas	2013	2014	2015	2016	2017	AAGR*
Coal	4,690	4,449	4,968	5,270	6,624	23%
Oil	796	766	672	637	541	-10%
Natural Gas	8	4	0	0	0	-45%
Hydro	37	35	38	64	90	12%
Geothermal	5,463	5,627	6,105	5,974	5,564	0%
Biomass [a]	106	117	159	276	414	57%
Wind [b]	-	-	157	209	194	11%
Solar [c]	-	15.04	70.56	525	627	247%
Total	**11,100**	**11,014**	**12,170**	**12,955**	**14,054**	6%

Mindanao	2007	2008	2009	2010	2011	2012
Coal	1,571	1,499	1,563	1,726	1,629	1,686
Oil	1,479	1,275	1,652	2,087	1,424	1,720
Hydro	3,972	4,402	4,196	3,754	4,808	4,913
Geothermal	867	794	823	834	841	731
Solar	1.31	1.30	1.25	1.25	1.21	1.32
Biomass [a]	-	-	-	-	-	75.14
Total	**7,890**	**7,972**	**8,235**	**8,403**	**8,703**	**9,127**

Mindanao	2013	2014	2015	2016	2017	AAGR*
Coal	1,635	1,258	2,038	4,890	6,271	15%
Oil	2,094	2,599	3,369	2,462	867	-5%
Hydro	4,827	4,745	3,858	3,036	3,791	-0.5%
Geothermal	743	864	842	869	797	-1%
Solar	1.41	1.48	1.55	77.41	78.21	51%
Biomass [a]	46.60	13.90	21.40	11.05	-	-32%
Total	**9,347**	**9,481**	**10,130**	**11,345**	**11,804**	4%

Philippines	2007	2008	2009	2010	2011	2012
Coal	16,837	15,749	16,476	23,301	25,342	28,265
Oil	5,148	4,868	5,381	7,101	3,398	4,254
Hydro	8,563	9,843	9,788	7,803	9,698	10,252
Geothermal	10,215	10,723	10,324	9,929	9,942	10,250
Wind	58	61	64	62	88	75
Solar[a]	1	1	1	1	1	1
Natural Gas	18,789	19,576	19,887	19,518	20,591	19,642
Biomass [b]	-	-	14	27	115	183
Total	**59,612**	**60,821**	**61,934**	**67,743**	**69,176**	**72,922**
Self-sufficiency level (	**64**	**67**	**66**	**57**	**61**	**59**

Philippines	2013	2014	2015	2016	2017	AAGR*
Coal	32,081	33,054	36,686	43,303	46,847	10.8%
Oil	4,491	5,708	5,886	5,661	3,793	-3.0%
Hydro	10,019	9,137	8,665	8,111	9,605	1.2%
Geothermal	9,605	10,308	11,044	11,070	10,270	0.1%
Wind	66	152	748	975	690	28.1%
Solar[a]	1	17	139	1,097	1,283	326.7%
Natural Gas	18,791	18,690	18,878	19,854	20,547	0.9%
Biomass [b]	212	196	367	726	1,335	74.3%
Total	**75,266**	**77,261**	**82,413**	**90,798**	**94,370**	4.7%

Self-sufficiency level (	**56**	**53**	**53**	**51**	**54**

*average annual growth rate

Luzon

(a) average annual growth rate from 2010 to 2017

	2013	2014	2015	2016	2017
Residential	20,614	20,969	22,747	25,631	26,782
Commercial	18,304	18,761	20,085	21,770	22,768
Industrial	20,677	21,429	22,514	24,119	25,573
Others*	1,971	2,186	2,462	2,634	2,670
Utilities Own Use	5,959	6,646	7,124	8,357	8,316
Power Losses	7,741	7,270	7,481	8,286	8,262
Total	**75,266**	**77,261**	**82,413**	**90,798**	**94,370**

Barangay Electrification Profile

LUZON
20,486
--------- = 100.00%
20,486

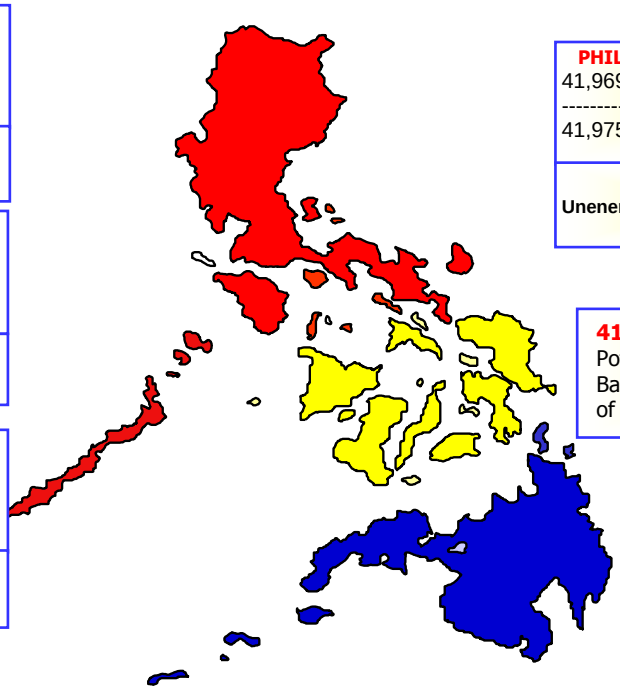
0
Unenergized Barangays

VISAYAS
11,442
--------- = 100.00%
11,442

0
Unenergized Barangays

MINDANAO
10,040
--------- = 99.94%
10,046

6
Unenergized Barangays



PHILIPPINES
41,969
--------- = 99.99 %
41,975

6
Unenergized Barangays

41,975
Potential Barangays
Based on 2005 Census
of Population

Electrification Level

	2007	2008	2009	2010	2011	2012
Cum. Barangays Electrified*	39,994	40,947	41,722	41,930	41,942	41,969
Electrification Level (%)	95.27	97.54	99.39	99.89	99.92	99.99

	2013	2014	2015	2016	2017
Cum. Barangays Electrified*	41,969	41,969	41,969	41,969	41,969
Electrification Level (%)	99.99	99.99	99.99	99.99	99.99

*Total Potential Barangay is based on the 2005 Census of Population

As of December 2017

Region	Total HH*	Served HH	Unserved HH	HH Elect'n Level %
CAR	409,100	365,999	43,101	89.50%
I	1,179,133	1,141,887	37,246	96.80%
II	795,800	762,314	33,486	95.80%
III	2,793,456	2,748,334	45,122	98.40%
IV-A	3,718,758	3,572,657	146,101	96.10%
IV-B	708,077	566,065	142,012	79.90%
NCR	3,233,605	3,189,357	44,248	98.60%
V	1,197,558	957,954	239,604	80.00%
Luzon	14,035,487	13,304,568	730,920	94.80%
VI	1,019,375	908,244	111,131	89.10%
VII	1,426,286	1,391,344	34,942	97.60%
VIII	1,003,543	831,235	172,308	82.80%
NIR	1,016,400	806,494	209,906	79.30%
Visayas	4,465,604	3,937,317	528,287	88.20%
ARMM	618,600	169,190	449,410	27.40%
CARAGA	633,700	615,515	18,185	97.10%
IX	754,300	505,444	248,856	67.00%
X	1,004,722	927,878	76,844	92.40%
XI	1,177,596	803,588	374,008	68.20%
XII	1,026,019	672,999	353,020	65.60%
Mindanao	5,214,937	3,694,614	1,520,323	70.80%
Philippines	23,716,028	20,936,499	2,779,530	88.30%

*As of December 2017

Transmission Profile

Transmission Lines (Circuit-Kilometers)	2007	2008	2009	2009	2011
Luzon	9,712	9,527	9,568	9,638	9,529
Visayas	4,856	4,745	4,600	4,680	4,918
Mindanao	5,561	5,506	5,257	5,258	5,257
Total Philippines	**20,129**	**19,778**	**19,425**	**19,576**	**19,704**

Transmission Lines (Circuit-Kilometers)	2012*	2013*	2014*	2015
Luzon	9,374	9,439	9,370	9,428
Visayas	4,971	4,840	4,821	4,813
Mindanao	5,145	5,146	5,272	5,832
Total Philippines	**19,490**	**19,425**	**19,463**	**20,073**

*There was a decrease in total transmission line length in circuit-km due to modification and divestment of various sub-transmission assets.

Substation Capacity (In Million Volt-Amperes)	2007	2008	2009	2009	2011
Luzon	19,411	18,861	18,452	19,937	20,590
Visayas	3,171	3,154	3,161	3,263	3,414
Mindanao	2,150	2,200	2,260	2,643	2,793
Total Philippines	**24,732**	**24,215**	**23,873**	**25,843**	**26,796**

Substation Capacity (In Million Volt-Amperes)	2012	2013	2014	2015
Luzon	21,170	21,110	23,395	23,785
Visayas	3,414	3,504	3,734	3,926
Mindanao	3,142	3,318	3,478	3,327
Total Philippines	**27,726**	**27,932**	**30,607**	**31,038**

Source: NGCP Transmission Development Plan 2014-2015 Volume 1

Glossary

Condensate	Liquid hydrocarbons separated from gas production.
Energy Intensity	Calculated as units of energy (million tons of oil equivalent, MTOE) per unit of GDP (in billion pesos).
Energy Per Capita	Amount of energy used per person. It is calculated as total primary energy demand (in MTOE) over population (in millions).
Energy Self Sufficiency	The ratio of the country's domestic energy supply to total supply; measures the degree at which domestic energy forms can support total energy demand.
Energy to GDP Elasticity	The percentage change in energy supply to achieve one percent change in national GDP. Calculated as the ratio of growth of primary energy demand over GDP growth.
Gas (or Natural Gas)	A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases in porous formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.
Geothermal Energy	Energy generated by heat stored in the earth, or the collection of absorbed heat derived from underground in the atmosphere and oceans.
Gross Domestic Product (GDP)	Total market value of all final goods and services produced within the country in a given period of time (usually a calendar year), or the sum of value added of all final goods and services produced within a country in a given period of time.
Gross National Product (GNP)	The value of all (final) goods and services produced in a country in one year, plus income earned by its citizens abroad, minus income earned by foreigners in the country.
Hydropower	Also called hydraulic power or water power; derived from the force or energy of moving water, which may be harnessed for useful purposes.
Indigenous Energy	Refers to all energy forms produced/sourced from within the country's natural resources.
Non-coincidental Peak Demand	The actual individual peak demand of each individual customer or sub-system whose the time when the individual peak demand occurs does not necessarily coincides with time when the system peak happens
Renewable Energy	Energy generated from natural resources which are naturally replenished. It includes solar power, wind power, hydroelectricity, micro hydro, biomass and biofuels.
Run of Mine	Coal directly coming from the mine
Total Final Energy Consumption (TFEC)	The sum of all energy forms consumed/used by different economic sectors

Total Primary Energy Supply (TPES)	The sum of all energy derived from domestic sources (indigenous, renewable), imported from outside the country, stock change (+/-) and export (-)
Total Primary Energy Demand (TPED)	The sum of total final consumption, power generation, other energy sector (own use and losses).
Dependable Capacity	The capacity that can be relied upon to carry system load for a specified time interval and period, provide assumed reserve, and/or meet firm power obilgations.
Electrification	Electrification is either done through *grid* or *off-grid* connection. When a barangay is provided with electricity through grid connection, it means that the distribution line has reached the barangay proper. It may also mean that almost 50.0 percent of potential households in the barangay are connected to a distribution utility (DU) (i.e. MERALCO) or at least one is connected to other DUs. Off-grid connection pertains to a barangay having about 20 to 30 households availing the connection.
Installed Capacity	The total of the capacities shown on the nameplates of the generating units in a powerplant.

Units of Measurement

BCF	Billion Cubic Feet
BTu	British Thermal Units
Ckt-Km	Circuit-Kilometer
GWh	Gigawatt-Hour
KWh	Kilowatt-hour
Ktoe	Thousand tonnes of oil equivalent
Lb	Pound
MB	Thousand Barrels
MMMT	Million Metric Tons
MMSCF	Million Standard Cubic Feet
MMT	Thousand Metric Tons
MVA	Megavolt Ampere
MW	Megawatt
Php	Philippine Peso
ROM	Run of Mine
USD	US Dollar

Conversion Table

Fuels	to KTOE
Coal (MT@10,000 btu/lb.)	0.000528
Natural Gas (MMSCF)	0.023290
Crude (MB)	0.134400
Condensate (NGL) (MB)	0.104400
Premium Gasoline (MB)	0.124500
Regular Gasoline (MB)	0.122300
Kerosene (MB)	0.127000
Diesel (MB)	0.134700
Fuel Oil (MB)	0.144400
LPG (MB)	0.092200
Jet (MB)	0.127000
Avgas (MB)	0.122400
Naphtha (MB)	0.123800
Asphalts (MB)	0.152100
Lubes & Greases (MB)	0.141200
Others (MB)	0.123300
Ricehull (MT)	0.000345
Charcoal (MT)	0.000600
Fuelwood (MT)	0.000329
Bagasse (MT)	0.000426
Agriwaste (MT)	0.000329
Animal Waste (MT)	0.000516
Ethanol (BBL)	0.000089
CME (BBL)	0.000130
Hydro (GWh)	0.086000
Geothermal (GWh)	0.860000
Wind (GWh)	0.860000
Solar (GWh)	0.860000