



DEPARTMENT
OF ENERGY

KEY ENERGY *Statistics* 2019





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Energy and Economy

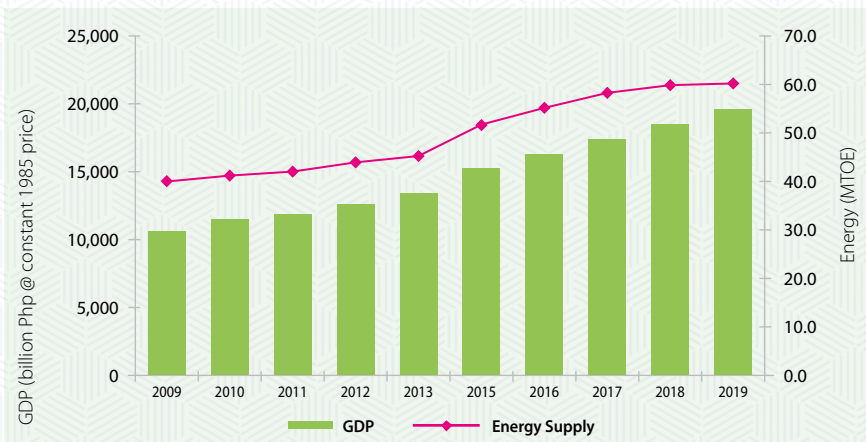
Energy and Economic Indicators

	2009	2010	2011	2012	2013	2014
GDP (in billion pesos: at constant 2018 prices)	10,419.6	11,183.9	11,615.4	12,416.5	13,254.6	14,096.0
Total Final Energy Consumption (in MTOE)	23.9	25.1	25.2	25.8	27.3	28.5
Total Primary Energy Supply (in MTOE)	39.9	41.0	41.9	43.5	45.0	47.0
Population (in million)	91.0	92.6	94.2	96.5	98.2	99.9
Forex (in Pesos/USD)	46.4	43.9	43.9	41.2	44.4	44.6
Average Crude Price (in USD / barrel)	61.7	78.0	106.2	109.0	105.0	97.0

	2015	2016	2017	2018	2019	AAGR*
GDP (in billion pesos: at constant 2018 prices)	14,990.9	16,062.7	17,176.0	18,265.2	19,368.5	6.4%
Total Final Energy Consumption (in MTOE)	31.0	33.5	35.5	35.7	36.3	4.3%
Total Primary Energy Supply (in MTOE)	51.3	54.6	58.0	59.7	60.1	4.2%
Population (in million)	101.6	103.2	104.9	106.6	108.3	1.8%
Forex (in Pesos/USD)	47.2	49.8	49.9	52.7	50.7	0.9%
Average Crude Price (in USD / barrel)	50.9	42.2	54.2	69.4	66.8	0.8%

*AAGR - Average Annual Growth Rate

GDP vs. Total Energy Supply



Sources:

Gross Domestic Product (GDP), Population - National Accounts, Philippine Statistical Authority (Rebased 2018)
 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

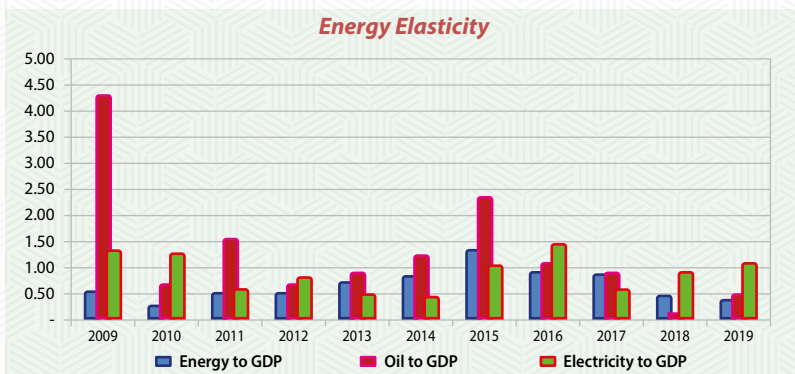
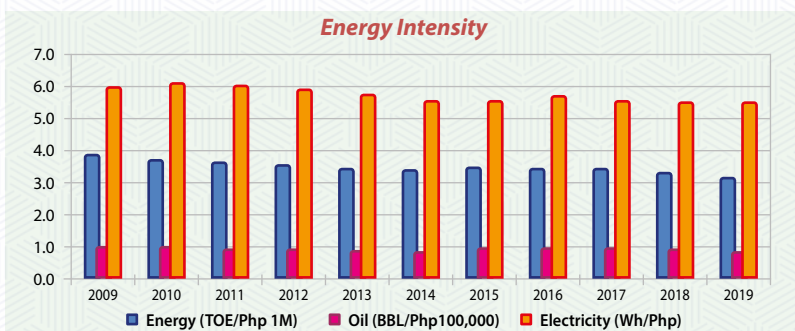


Indicator	2009	2010	2011	2012	2013	2014
Intensity						
Energy to GDP** (TOE/Php 1M)	3.85	3.66	3.59	3.46	3.40	3.36
Oil to GDP (BBL/Php 100,000)	0.95	0.95	0.86	0.86	0.82	0.81
Electricity to GDP (Wh/Php)	5.94	6.06	5.96	5.87	5.68	5.48
Elasticity						
Energy to GDP	0.53	0.27	0.47	0.46	0.69	0.82
Oil to GDP	4.31	0.64	1.52	0.65	0.87	1.21
Electricity to GDP	1.26	1.28	0.55	0.79	0.48	0.42
Energy Per Capita (TOE/person)	0.44	0.44	0.44	0.45	0.46	0.47

Indicator	2015	2016	2017	2018	2019	AAGR*
Intensity						
Energy to GDP (TOE/Php 1M)	3.42	3.39	3.36	3.25	3.13	-2.0%
Oil to GDP (BBL/Php 100,000)	0.90	0.91	0.91	0.87	0.80	-1.6%
Electricity to GDP (Wh/Php)	5.50	5.65	5.49	5.46	5.47	-0.8%
Elasticity						
Energy to GDP	1.29	0.89	0.86	0.43	0.38	-3.3%
Oil to GDP	2.33	1.09	0.88	0.14	0.46	-20.0%
Electricity to GDP	1.05	1.42	0.57	0.90	1.04	-1.9%
Energy Per Capita (TOE/person)	0.50	0.53	0.55	0.56	0.56	2.4%

*average annual growth rate

**GDP Rebased 2018 @ constant price





Energy and Environment

GHG Emission, by Sector and Activity

MtCO₂e⁽¹⁾

Sector and Activity	2009	2010	2011	2012	2013	2014
Industry	10.09	11.68	11.38	10.54	12.16	12.68
Transport	22.74	22.96	22.75	23.68	24.75	25.69
Others ⁽²⁾	5.57	5.92	5.90	5.80	6.22	7.04
Electricity Generation	28.27	31.28	32.32	34.58	40.18	43.07
Energy ⁽³⁾	0.90	1.02	0.94	1.04	0.89	1.05
Total	67.57	72.85	73.29	75.64	84.20	89.53

Sector and Activity	2015	2016	2017	2018	2019	AAGR*
Industry	12.99	15.05	16.36	13.99	13.23	2.7%
Transport	29.71	32.15	33.20	34.36	35.54	4.6%
Others ⁽²⁾	6.96	8.47	10.01	10.47	11.03	7.1%
Electricity Generation	46.89	50.95	58.24	63.76	69.23	9.4%
Energy ⁽³⁾	0.91	0.63	0.68	0.74	1.00	1.1%
Total	97.46	107.25	118.48	123.32	130.03	6.8%

Notes:

(1) Million tons of CO₂ Equivalent (MTCO₂e)

(2) includes Household, Services and Agriculture Sectors

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

*average annual growth rate

GHG Emission, by Fuel Type

MtCO₂e

Fuel Type	2009	2010	2011	2012	2013	2014
Liquid Fossils (Oil)	36.98	38.71	35.88	37.20	38.85	41.50
Solid Fossils (Coal)	23.07	27.05	29.75	31.11	38.59	40.93
Gaseous Fossil (Natural Gas)	7.53	7.09	7.65	7.34	6.76	7.11
Total	67.57	72.85	73.29	75.64	84.20	89.53

Fuel type	2015	2016	2017	2018	2019	AAGR*
Liquid Fossils (Oil)	45.97	49.22	51.15	51.73	53.89	3.8%
Solid Fossils (Coal)	44.81	50.37	59.78	63.16	67.66	11.4%
Gaseous Fossil (Natural Gas)	6.68	7.66	7.55	8.43	8.49	1.2%
Total	97.46	107.25	118.48	123.32	130.03	6.8%

*average annual growth rate



Environmental Emission Indicators

GHG emission is expressed in carbon dioxide equivalent (CO₂e) which accounts for the global warming potential (GWP) of CH₄ and N₂O, as prescribed by the Intergovernmental 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 CO₂ over a fixed period of time (i.e. CH₄ and N₂O GWP is 21 times and 310 times the CO₂ emission, respectively).

Indicator	2009	2010	2011	2012	2013	2014
GHG emission-to-GDP ratio (tCO ₂ e/PhP 100K, 2000=100)	0.65	0.65	0.63	0.61	0.64	0.64
GHG emission per capita (tCO ₂ e/person)	0.74	0.79	0.78	0.78	0.86	0.90
GHG emission per Electricity Generation (tCO ₂ e/MWh)	0.46	0.46	0.47	0.47	0.53	0.56
GHG emission per Oil consumption (tCO ₂ e/TOE)	2.63	2.50	2.61	2.51	2.58	2.58
GHG emission per TPES (tCO ₂ e/TOE)	1.69	1.77	1.75	1.74	1.87	1.91

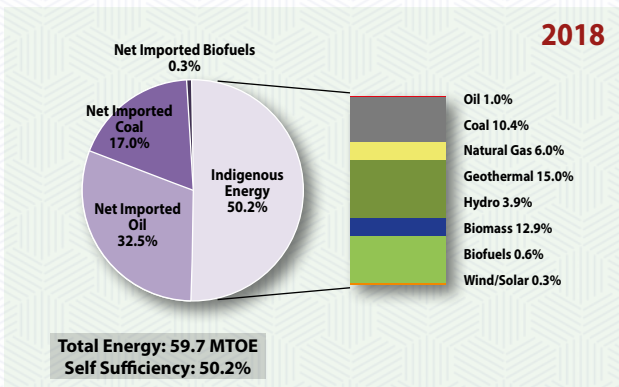
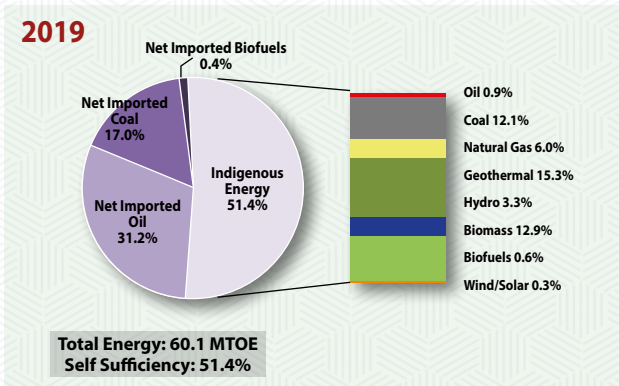
Indicator	2015	2016	2017	2018	2019	AAGR*
GHG emission-to-GDP ratio (tCO ₂ e/PhP 100K, 2000=100)	0.65	0.67	0.69	0.68	0.67	0.3%
GHG emission per capita (tCO ₂ e/person)	0.96	1.04	1.13	1.16	1.20	4.9%
GHG emission per Electricity Generation (tCO ₂ e/MWh)	0.57	0.56	0.62	0.64	0.65	3.6%
GHG emission per Oil consumption (tCO ₂ e/TOE)	2.41	2.45	2.45	2.48	2.67	0.2%
GHG emission per TPES (tCO ₂ e/TOE)	1.90	1.96	2.04	2.07	2.16	2.5%

*average annual growth rate



Energy Mix

Total Primary Energy Supply Mix





Total Energy and Self-Sufficiency Level

in kTOE

	2009	2010	2011	2012	2013	2014
Indigenous Energy	24,590	24,725	25,706	26,248	25,469	26,606
Oil	962	916	842	700	680	849
Natural Gas	3,215	3,028	3,269	3,134	2,887	3,036
Coal	2,474	3,510	3,648	3,874	3,747	4,012
Hydro	2,437	1,943	2,414	2,552	2,494	2,275
Geothermal	8,877	8,538	8,549	8,813	8,258	8,863
Biomass	6,496	6,679	6,874	7,035	7,237	7,356
Wind/Solar	6	5	8	7	6	14
Biofuels	125	107	102	134	160	200
Net Imported Energy	15,313	16,322	16,145	17,275	19,520	20,383
Oil	11,688	12,693	11,945	12,906	13,075	13,571
Coal	3,593	3,521	4,078	4,210	6,255	6,630
Biofuels	33	108	121	159	190	182
Total Energy	39,904	41,046	41,851	43,524	44,989	46,990
Renewable Energy	17,973	17,379	18,068	18,700	18,345	18,891
Clean Energy (RE + Natural Gas)	21,187	20,407	21,337	21,834	21,232	21,927
Self Sufficiency (%)	61.6	60.2	61.4	60.3	56.6	56.6

	2015	2016	2017	2018	2019	AAGR*
Indigenous Energy	26,881	29,405	29,515	29,977	30,876	2.3%
Oil	715	702	622	594	523	-5.9%
Natural Gas	2,854	3,270	3,226	3,601	3,626	1.2%
Coal	3,894	5,917	6,298	6,204	7,258	11.4%
Hydro	2,157	2,019	2,393	2,336	1,998	-2.0%
Geothermal	9,496	9,519	8,831	8,973	9,192	0.3%
Biomass	7,431	7,494	7,651	7,725	7,736	1.8%
Wind/Solar	76	178	197	207	197	42.6%
Biofuels	258	305	298	338	347	10.8%
Net Imported Energy	24,393	25,185	28,443	29,739	29,222	6.7%
Oil	16,496	17,844	19,048	19,400	18,778	4.9%
Coal	7,721	7,169	9,177	10,145	10,224	11.0%
Biofuels	176	172	219	194	220	20.8%
Total Energy	51,274	54,590	57,958	59,717	60,098	4.2%
Renewable Energy	19,594	19,687	19,588	19,772	19,690	0.9%
Clean Energy (RE + Natural Gas)	22,448	22,957	22,814	23,373	23,316	1.0%
Self Sufficiency (%)	52.4	53.9	50.9	50.2	51.4	

*average annual growth rate



Energy Consumption

Total Final Energy Consumption, by Sector and Type*

in kTOE

	2009	2010	2011	2012	2013	2014
Industry	5,369	5,948	5,948	5,806	6,312	6,529
Coal	1,469	1,841	1,838	1,671	2,082	2,261
Natural Gas	70	69	77	58	62	77
Oil	1,359	1,402	1,317	1,273	1,278	1,206
Biomass ^(b)	993	1,028	1,047	1,067	1,099	1,131
Biodiesel	9	10	6	12	13	11
Electricity	1,469	1,597	1,662	1,726	1,778	1,843
Transport	7,914	8,035	7,983	8,364	8,784	9,133
Natural Gas ^(a)	0.42	0.36	1.08	1.19	0.81	0.08
Oil	7,773	7,843	7,770	8,092	8,460	8,782
Biodiesel	86	85	94	89	92	96
Bioethanol	45	98	108	172	222	246
Electricity	10	9	10	10	10	10
Household	7,633	7,878	7,991	8,171	8,386	8,488
Oil	938	930	916	901	880	862
Biomass ^(c)	5,190	5,329	5,468	5,577	5,733	5,823
Electricity	1,505	1,619	1,607	1,693	1,772	1,803
Services	2,413	2,663	2,739	2,830	3,038	3,397
Oil	826	941	979	965	1,121	1,432
Biomass ^(d)	309	313	318	323	327	332
Biodiesel	9	11	13	13	15	20
Electricity	1,269	1,398	1,429	1,529	1,574	1,613
Agriculture	330	347	302	318	352	354
Oil	205	215	186	181	189	172
Biodiesel	4	4	1	3	4	3
Electricity	121	128	115	133	160	178
Non-Energy Use	267	220	220	285	428	605
Oil	112	120	117	172	314	450
Coal	155	100	103	113	114	154
Total	23,926	25,092	25,182	25,774	27,299	28,506



	2015	2016	2017	2018	2019	AAGR**
Industry	6,750	7,449	7,925	7,523	7,389	3.2%
Coal	2,218	2,677	3,008	2,411	2,217	4.2%
Natural Gas	50	65	53	59	62	-1.2%
Oil	1,382	1,458	1,470	1,469	1,465	0.7%
Biomass ^(b)	1,152	1,164	1,181	1,199	1,207	2.0%
Biodiesel	12	13	14	13	15	4.5%
Electricity	1,936	2,074	2,199	2,372	2,424	5.1%
Transport	10,557	11,425	11,823	12,238	12,689	4.8%
Natural Gas ^(a)	-	-	-	-	-	-15.0%
Oil	10,151	10,986	11,352	11,753	12,173	4.6%
Biodiesel	116	121	123	127	127	4.0%
Bioethanol	281	309	339	350	380	23.8%
Electricity	8	9	10	9	9	-0.4%
Household	8,731	9,035	9,192	9,431	9,711	2.4%
Oil	973	1,122	1,159	1,255	1,312	3.4%
Biomass ^(c)	5,802	5,709	5,731	5,746	5,772	1.1%
Electricity	1,956	2,204	2,303	2,430	2,627	5.7%
Services	3,370	3,865	4,404	4,668	4,915	7.4%
Oil	1,292	1,632	2,074	2,223	2,339	11.0%
Biomass ^(d)	337	340	345	350	353	1.3%
Biodiesel	14	21	28	30	33	14.0%
Electricity	1,727	1,872	1,958	2,065	2,191	5.6%
Agriculture	401	450	516	440	472	3.6%
Oil	194	229	290	208	228	1.1%
Biodiesel	4	4	5	4	4	1.0%
Electricity	203	218	220	228	240	7.0%
Non-Energy Use	1,179	1,306	1,613	1,423	1,137	15.6%
Oil	1,047	1,129	1,458	1,261	996	24.5%
Coal	132	177	155	162	141	-1.0%
Total	30,988	33,530	35,474	35,723	36,312	4.3%

* does not include energy for power application

**average annual growth rate

(a) AAGR from 2009-2014

(b) includes ricehull, fuelwood, bagasse, agriwaste and animal waste

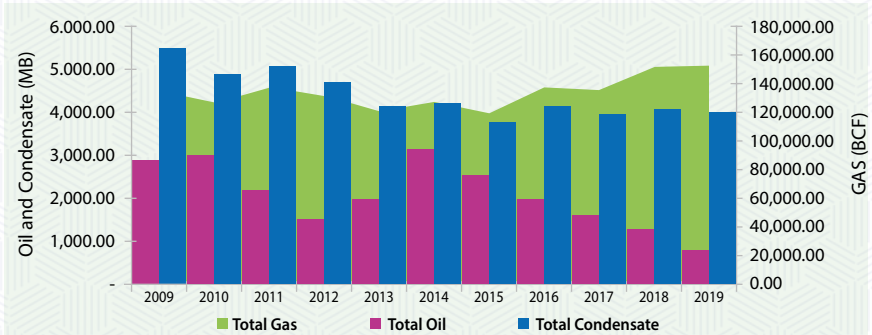
(c) includes charcoal, fuelwood, and agriwaste

(d) includes ricehull, charcoal, and fuelwood



Oil and Gas

Oil and Gas Production, by Source



	2009	2010	2011	2012	2013	2014
In MB						
Total Oil	2,920	3,010	2,326	1,638	1,884	3,079
Nido	83	87	75	74	84	79
Matinloc	68	70	51	71	66	70
North Matinloc ^(a)	33.13	18.78	16.11	10.53	10.03	8.87
Galoc	2,736.32	2,683.61	2,183.14	1,482.66	1,723.06	2,921
Tindalo ^(b)	-	152	-	-	-	-
Alegria ^(c)	-	-	-	-	-	-
Total Condensate	5,457	4,895	5,072	4,594	4,084	4,173
Malampaya Condensate	5,457	4,895	5,072	4,594	4,084	4,173

	2015	2016	2017	2018	2019	AAGR*
in MMSCF						
Total Gas	138,030	130,008	140,368	134,563	123,944	130,351
Libertad ^(c)	-	-	-	72	79	35
Malampaya Gas	138,030	130,008	140,368	134,491	123,866	130,316

	2015	2016	2017	2018	2019	AAGR*
In MB						
Total Oil	2,410	2,014	1,587	1,264	776	-12.4%
Nido	71	54	56	52	21	-13.0%
Matinloc	71	73	67	43	2	-31.5%
North Matinloc ^(a)	8.36	9.12	2.10	-	-	-29.2%
Galoc	2,260	1,878	1,461	1,167	744	-12.2%
Tindalo ^(b)	-	-	-	-	-	-
Alegria ^(c)	-	-	-	1.98	9	377.5%
Total Condensate	3,746	4,136	3,914	4,061	4,006	-3.0%
Malampaya Condensate	3,746	4,136	3,914	4,061	4,006	-3.0%

	2015	2016	2017	2018	2019	AAGR*
in MMSCF						
Total Gas	122,541	140,398	138,497	154,622	155,690	1.2%
Libertad ^(d)	15	-	-	-	-	-41.2%
Malampaya Gas	122,527	140,398	138,497	154,622	155,690	1.2%

*average annual growth rate

(a) average annual growth rate from 2009 to 2017

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

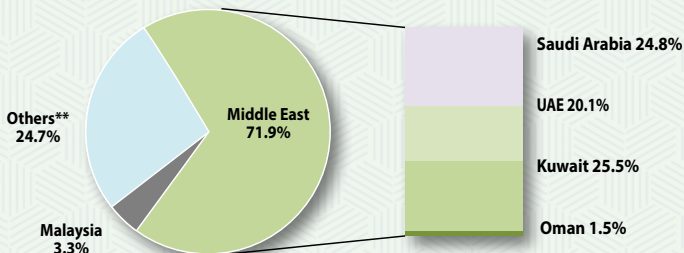
(c) starts in 2018

(d) average annual growth rate from 2012 to 2015



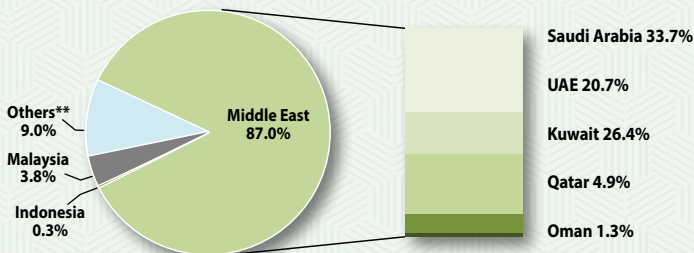
Crude Oil Importation, by Country of Source

2019



Total: 62,499 MB

2018



Total: 85,660 MB



in MB

Source	2009	2010	2011	2012	2013	2014
Middle East	42,243	54,232	52,955	51,032	42,727	49,086
Saudi Arabia	22,578	30,359	30,795	29,784	23,500	37,103
Iran ^(a)	-	819	5,874	-	-	-
Iraq ^(b)	99	-	-	-	-	-
Kuwait ^(c)	-	-	-	-	-	-
UAE	10,144	18,088	14,730	16,230	9,717	6,403
Qatar ^(d)	8,372	4,273	1,551	5,018	8,459	5,579
Oman	1,050	693	6	-	-	-
Yemen ^(e)	-	-	-	-	1,050	-
Indonesia	230	-	-	191	162	-
Malaysia	4,090	6,864	2,102	2,410	1,023	3,583
Others**	3,497	5,503	14,399	9,930	12,273	12,194
Total	50,061	66,599	69,456	63,562	56,186	64,862

Source	2015	2016	2017	2018	2019	AAGR*
Middle East	67,133	68,537	69,345	74,555	44,951	0.6%
Saudi Arabia	34,427	28,438	27,097	28,880	15,498	-3.7%
Iran ^(a)	-	-	-	-	-	617.2%
Iraq ^(b)	-	-	-	-	-	-
Kuwait ^(c)	16,877	26,448	24,475	22,589	15,925	-1.4%
UAE	8,365	10,507	13,549	17,759	12,567	2.2%
Qatar ^(d)	7,464	2,618	2,999	4,235	-	-7.3%
Oman	-	524	1,225	1,091	961	-0.9%
Yemen ^(e)	-	-	-	-	-	-
Indonesia	-	396	-	221	-	-0.5%
Malaysia	5,747	4,160	916	3,215	2,081	-6.5%
Others**	5,031	5,544	7,255	7,669	15,466	16.0%
Total	77,911	78,637	77,516	85,660	62,499	2.2%

*average annual growth rate

(a) average annual growth rate from 2010 to 2011

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

(c) average annual growth rate from 2015 to 2019

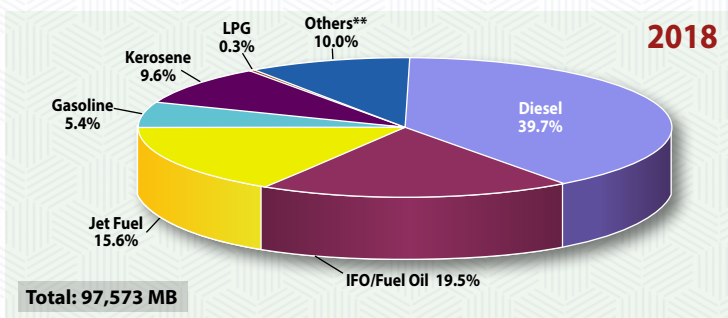
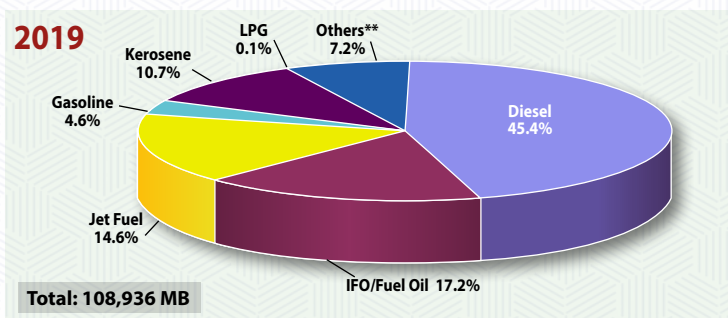
(d) average annual growth rate from 2009 to 2018

(e) only one (1) entry (2013)

**includes Singapore, Brunei, Russia, Vietnam, Korea, Australia and other Asia and Pacific Region



Oil Products Importation, by Type



in MB

Fuel	2009	2010	2011	2012	2013	2014
Diesel	23,836	22,368	18,672	24,941	26,464	30,343
Gasoline	13,111	12,575	11,248	12,378	14,599	14,828
LPG	9,621	8,758	8,599	8,218	9,074	9,299
IFO/Fuel Oil	5,534	5,660	2,287	1,876	2,685	4,901
Jet Fuel	3,998	3,547	4,838	5,928	6,449	6,579
Kerosene	483	289	247	228	1,490	430
Others**	1,260	1,411	781	1,211	1,756	3,279
Total	57,843	54,607	46,671	54,780	62,517	69,658

Fuel	2015	2016	2017	2018	2019	AAGR*
Diesel	28,375	35,345	40,105	38,784	49,462	7.6%
IFO/Fuel Oil	15,148	15,705	17,162	19,004	18,726	3.6%
Jet Fuel	9,691	11,613	13,910	15,224	15,957	5.2%
Gasoline	10,129	7,162	6,921	5,244	5,061	-0.9%
Kerosene	5,722	6,837	8,928	9,331	11,708	11.3%
LPG	199	252	317	265	134	-12.0%
Others**	8,670	9,194	10,073	9,721	7,889	20.1%
Total	77,934	86,108	97,415	97,573	108,936	6.5%

*average annual growth rate

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



Oil Products Importation, by Country of Source

MB

Source	2009	2010	2011	2012	2013	2014
Middle East	3,378	2,257	3,177	1,597	2,449	1,966
Bahrain	-	-	113	319	86	-
Iran	1,258	643	-	0	-	-
Iraq	-	-	-	-	-	-
KSA	251	86	429	251	843	551
Kuwait	260	250	361	340	504	406
Oman	-	-	-	-	251	-
Qatar	1,108	619	1,454	48	276	450
UAE	501	659	821	639	489	559
ASEAN	23,518	31,933	17,729	14,275	17,312	16,523
Indonesia	662	484	915	548	97	697
Malaysia	3,288	2,185	1,145	884	1,835	1,758
Philippines	5,621	5,609	3,720	3,025	4,427	805
Singapore	12,894	18,137	8,717	6,011	7,547	9,982
Thailand	874	5,269	3,174	3,767	3,148	2,473
Vietnam	178	250	58	41	258	808
OTHER ASIA	29,737	19,919	25,686	38,613	42,531	50,335
Bangladesh	229	601	-	-	-	-
China	3,958	3,076	6,422	5,561	8,117	10,504
Hong Kong	182	-	80	266	64	1
India	-	583	-	-	31	1,064
Japan	3,976	1,292	1,018	687	299	368
Russia	-	-	-	-	-	-
South Korea	9,621	5,744	8,124	13,893	14,875	21,229
Sri Lanka	-	-	-	-	-	-
Taiwan	11,772	8,623	10,042	18,206	19,145	16,993
Pakistan	-	-	-	-	-	177
OTHERS**	1,210	498	79	295	224	834
Total	57,843	54,607	46,671	54,780	62,517	69,658



Source	2015	2016	2017	2018	2019	AAGR*
Middle East	1,678	6,280	5,272	11,521	8,436	9.6%
Bahrain	-	-	-	-	-	
Iran	-	1	3	1	5	
Iraq	-	-	-	163	-	
KSA	1,085	1,402	1,081	1,204	1,242	
Kuwait	228	692	1,150	443	1,323	
Oman	135	-	90	3	176	
Qatar	-	1,490	1,263	1,265	657	
UAE	231	2,695	1,684	8,442	5,033	
ASEAN	19,979	19,556	19,732	18,321	24,697	0.5%
Brunei	-	-	-	-	222	
Indonesia	228	1,610	1,186	539	590	
Malaysia	7,523	4,572	7,557	7,661	9,161	
Philippines	-	-	-	-	-	
Singapore	10,323	12,147	10,273	7,910	12,551	
Thailand	1,272	36	377	930	266	
Vietnam	633	1,192	340	1,281	1,907	
OTHER ASIA	53,160	58,342	67,305	64,491	73,156	9.4%
Bangladesh	-	-	-	-	-	
China	10,938	24,997	32,460	29,421	45,472	
Hong Kong	-	51	158	-	0	
India	3,258	2,763	4,686	2,682	3,219	
Japan	1,824	4,701	4,261	2,673	1,373	
Russia	605	-	-	-	-	
South Korea	17,886	16,233	22,521	28,083	22,701	
Sri Lanka	-	-	-	271	-	
Taiwan	17,674	9,204	2,216	1,028	391	
Pakistan	975	393	1,002	333	-	
OTHERS**	3,117	1,930	5,106	3,240	2,646	8.1%
Total	77,934	86,108	97,415	97,573	108,936	6.5%

*average annual growth rate

** Others include countries from Africa, Asia and Pacific, Europe and North America



Oil Products Exportation, by Country of Destination

MB

Destination	2009	2010	2011	2012	2013	2014
Middle East	-	6	9	-	-	-
UAE	-	6	9	-	-	-
ASEAN	5,897	4,034	5,574	2,870	4,000	5,916
Indonesia	230	-	36	19	433	21
Malaysia	320	188	516	667	944	679
Myanmar	-	-	-	-	-	-
Singapore	3,117	3,255	4,030	1,737	2,279	3,704
Thailand	1,957	591	991	446	344	1,513
Vietnam	274	-	-	-	-	-
OTHER ASIA	4,881	7,991	7,888	6,524	4,619	3,643
China	1,244	1,137	970	315	473	717
Hong Kong	296	-	396	678	629	-
India	-	32	141	-	-	-
Japan	-	456	101	-	78	-
South Korea	1,423	4,691	4,416	4,284	2,806	2,284
Taiwan	1,919	1,675	1,852	1,249	632	643
Pakistan	-	-	11	-	-	-
OTHERS**	-	-	-	1	1	2
Australia	-	-	-	-	-	-
New Zealand	-	-	-	-	-	-
Saipan	-	-	-	1	1	2
Total	10,779	12,031	13,470	9,395	8,619	9,561



Destination	2015	2016	2017	2018	2019	AAGR*
Middle East ^(a)	-	-	122	-	-	53.5%
UAE	-	-	122	-	-	
ASEAN	6,691	6,027	7,561	9,552	8,572	3.8%
Bangladesh	-	-	36	-	-	
Indonesia	98	67	119	252	19	
Malaysia	2,416	1,259	2,131	1,319	1,786	
Singapore	3,066	2,711	2,849	4,812	4,602	
Thailand	919	1,683	2,333	3,025	1,818	
Vietnam	192	308	93	144	347	
OTHER ASIA	6,433	7,727	6,899	7,040	3,037	-4.6%
China	1,441	1,897	2,670	3,986	1,802	
Hong Kong	-	-	-	-	-	
India	-	-	-	-	-	
Japan	-	20	62	60	-	
South Korea	3,453	3,385	2,645	1,911	907	
Taiwan	1,539	2,424	1,523	1,083	327	
Pakistan	-	-	-	-	-	
OTHERS ^(b)	864	18	48	160	67	-47.2%
Australia	862	-	-	-	-	
Belgium	-	6	-	3	-	
Guam	-	10	-	-	-	
Saipan	2	2	3	3	2	
USA	-	-	45	154	65	
Total	13,988	13,772	14,631	16,752	11,676	0.8%

*average annual growth rate

(a) average annual growth rate from 2010 to 2017

(b) average annual growth rate from 2015 to 2019



Oil Products Consumption, by Sector and Type

MB

	2009	2010	2011	2012	2013	2014
Industry	10,041	10,310	9,886	9,648	9,727	9,224
Kerosene	158	151	155	138	120	126
LPG	825	700	1,147	1,169	1,203	1,387
Diesel	3,535	3,727	4,274	4,461	4,863	3,975
Fuel Oil	5,451	5,655	4,263	3,789	3,442	3,649
Biodiesel	72	76	48	91	99	86
Transport	70,052	71,115	71,532	74,568	77,985	79,996
Gasoline	23,262	23,484	23,152	23,882	24,940	25,795
Diesel	32,504	32,423	32,099	33,794	34,715	36,097
Fuel Oil	2,726	3,008	3,003	2,418	2,458	1,690
Aviation Fuel	9,487	9,647	10,845	11,432	12,049	12,463
LPG	907	800	495	420	621	453
Bioethanol	507	1,099	1,216	1,935	2,496	2,765
Biodiesel	659	656	721	686	705	734
Household	9,757	9,712	9,605	9,461	9,233	9,074
LPG	8,667	8,710	8,726	8,637	8,413	8,343
Kerosene	1,090	1,001	880	825	820	731
Services	6,798	7,720	8,005	7,894	9,163	11,641
LPG	2,157	2,335	2,256	2,209	2,477	2,890
Diesel	3,370	4,075	4,646	4,693	5,764	7,819
Fuel Oil	1,202	1,226	1,005	896	804	780
Biodiesel	68	83	97	96	118	151
Agriculture	1,548	1,631	1,390	1,376	1,429	1,306
Gasoline	31	62	33	56	17	37
Kerosene	4	7	6	9	7	3
Diesel	1,427	1,486	1,300	1,253	1,349	1,227
Fuel Oil	57	47	41	32	27	13
Biodiesel	29	30	10	26	28	26
Power Generation	8,327	10,463	5,608	6,847	7,608	9,762
Diesel	1,935	2,447	1,342	1,431	1,827	2,477
Fuel Oil	6,352	7,966	4,256	5,386	5,744	7,233
Biodiesel	40	50	11	29	37	52
Non-Energy Use	776	858	830	1,198	2,345	3,501
Total	107,299	111,809	106,857	110,991	117,489	124,503

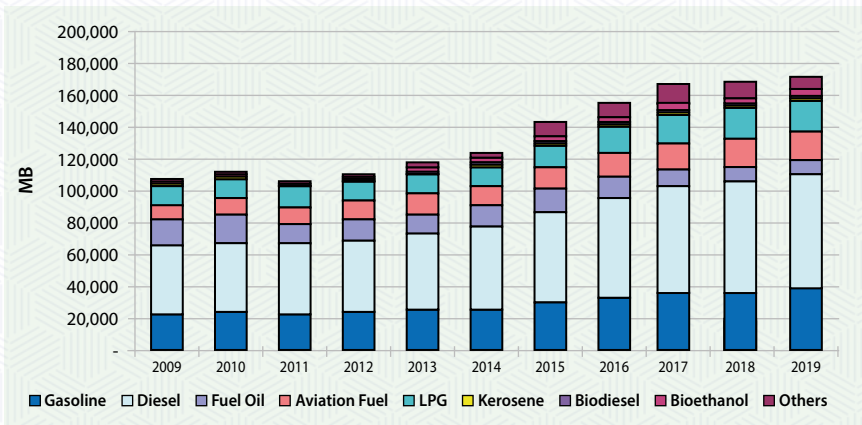


	2015	2016	2017	2018	2019	AAGR*
Industry	10,528	11,046	11,022	11,392	11,308	1.2%
Kerosene	139	148	170	16	15	-21.1%
LPG	1,528	1,412	924	2,129	1,872	8.5%
Diesel	4,357	4,869	5,570	5,144	5,598	4.7%
Fuel Oil	4,413	4,520	4,247	4,000	3,712	-3.8%
Biodiesel	92	97	111	103	112	4.5%
Transport	91,891	99,456	105,255	108,811	112,309	4.8%
Gasoline	29,601	32,568	35,411	36,516	39,504	5.4%
Diesel	43,435	45,749	46,067	48,043	48,205	4.0%
Fuel Oil	1,386	1,707	2,431	1,845	1,581	-5.3%
Aviation Fuel	13,086	14,879	16,474	17,390	17,674	6.4%
LPG	321	146	112	108	95	-20.2%
Bioethanol	3,168	3,477	3,818	3,936	4,276	23.8%
Biodiesel	893	929	942	972	974	4.0%
Household	10,301	11,938	12,342	13,373	14,014	3.7%
LPG	9,632	11,314	11,749	12,754	13,445	4.5%
Kerosene	669	624	593	620	569	-6.3%
Services	10,692	13,456	17,357	18,393	19,242	11.0%
LPG	3,360	4,054	5,767	5,495	5,370	9.5%
Diesel	6,262	7,853	10,368	11,641	12,668	14.2%
Fuel Oil	959	1,390	1,011	1,025	951	-2.3%
Biodiesel	111	158	212	233	253	14.0%
Agriculture	1,471	1,731	2,202	1,579	1,728	1.1%
Gasoline	66	61	98	58	74	9.2%
Kerosene	3	5	3	3	3	-3.5%
Diesel	1,355	1,577	2,008	1,484	1,615	1.2%
Fuel Oil	18	56	52	5	4	-22.6%
Biodiesel	29	32	41	30	32	1.0%
Power Generation	9,976	8,833	6,965	5,292	5,365	-4.3%
Diesel	2,137	3,573	2,926	2,770	3,015	4.5%
Fuel Oil	7,793	5,188	3,979	2,460	2,283	-9.7%
Biodiesel	45	72	60	62	67	5.4%
Non-Energy Use	8,368	8,954	11,397	9,964	7,851	26.0%
Total	143,226	155,414	166,539	168,805	171,817	4.8%

*average annual growth rate



Oil Products Consumption, by Type



MB

	2009	2010	2011	2012	2013	2014
Gasoline	23,293	23,545	23,185	23,938	24,957	25,833
Diesel	42,770	44,158	43,660	45,632	48,518	51,595
Fuel Oil	15,789	17,901	12,568	12,521	12,475	13,364
Aviation Fuel	9,487	9,647	10,845	11,432	12,049	12,463
LPG	12,557	12,546	12,624	12,434	12,714	13,073
Kerosene	1,252	1,159	1,041	971	947	860
Biodiesel	868	896	887	929	987	1,049
Bioethanol	507	1,099	1,216	1,935	2,496	2,765
Others**	776	858	830	1,198	2,345	3,501
Total	107,299	111,809	106,857	110,991	117,489	124,503

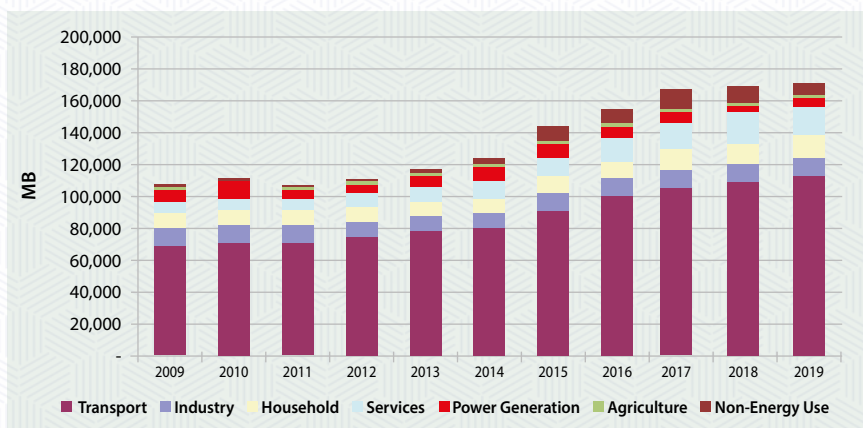
	2015	2016	2017	2018	2019	AAGR*
Gasoline	29,667	32,630	35,509	36,574	39,578	5.4%
Diesel	57,545	63,622	66,939	69,082	71,101	5.2%
Fuel Oil	14,568	12,862	11,719	9,335	8,530	-6.0%
Aviation Fuel	13,086	14,879	16,474	17,390	17,674	6.4%
LPG	14,842	16,926	18,552	20,486	20,782	5.2%
Kerosene	811	777	767	638	587	-7.3%
Biodiesel	1,171	1,289	1,364	1,400	1,437	5.2%
Bioethanol	3,168	3,477	3,818	3,936	4,276	23.8%
Others**	8,368	8,954	11,397	9,964	7,851	26.0%
Total	143,226	155,414	166,539	168,805	171,817	4.8%

*average annual growth rate

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



Oil Products Consumption, by Sector



MB

	2009	2010	2011	2012	2013	2014
Transport	70,052	71,115	71,532	74,568	77,985	79,996
Industry	10,041	10,310	9,886	9,648	9,727	9,224
Household	9,757	9,712	9,605	9,461	9,233	9,074
Services	6,798	7,720	8,005	7,894	9,163	11,641
Agriculture	1,548	1,631	1,390	1,376	1,429	1,306
Power Generation	8,327	10,463	5,608	6,847	7,608	9,762
Non-Energy Use	776	858	830	1,198	2,345	3,501
Total	107,299	111,809	106,857	110,991	117,489	124,503

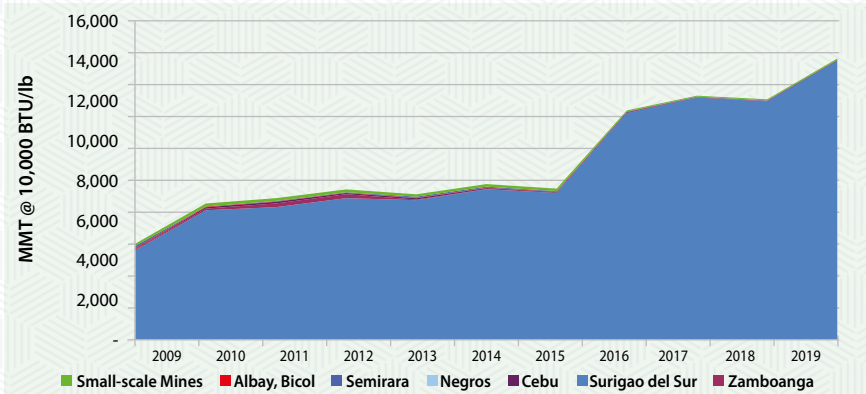
	2015	2016	2017	2018	2019	AAGR*
Transport	91,891	99,456	105,255	108,811	112,309	4.8%
Industry	10,528	11,046	11,022	11,392	11,308	1.2%
Household	10,301	11,938	12,342	13,373	14,014	3.7%
Services	10,692	13,456	17,357	18,393	19,242	11.0%
Agriculture	1,471	1,731	2,202	1,579	1,728	1.1%
Power Generation	9,976	8,833	6,965	5,292	5,365	-4.3%
Non-Energy Use	8,368	8,954	11,397	9,964	7,851	26.0%
Total	143,226	155,414	166,539	168,805	171,817	4.8%

*average annual growth rate



Coal

Coal Production, by Source



in MMT @ 10,000 BTU/lb

	2009	2010	2011	2012	2013	2014
Semirara	4,362	6,318	6,471	6,911	6,813	7,345
Zamboanga ^(a)	34	81	180	193	30	15
Cebu	27	67	83	60	66	44
Albay, Bicol	49	31	17	18	23	21
Surigao del Sur ^(b)	105	3	23	21	52	50
Negros ^(c)	-	1	2	0	-	-
Small-scale Mines	110	148	134	138	116	127
Total Production	4,687	6,650	6,911	7,340	7,100	7,601
Run of Mine (MMT)	5,176	7,337	7,612	8,083	7,859	8,419

	2015	2016	2017	2018	2019	AAGR*
Semirara	7,168	11,084	11,839	11,654	13,670	12.1%
Zamboanga ^(a)	5	0.4	-	-	-	-46.4%
Cebu	29	35	13	7	6	-13.7%
Albay, Bicol	28	16	12	13	9	-16.0%
Surigao del Sur ^(b)	28	21	23	26	-	-14.5%
Negros ^(c)	-	-	0	0.14	1	-5.3%
Small-scale Mines	119	54	44	55	65	-5.0%
Total Production	7,378	11,211	11,932	11,755	13,751	11.4%
Run of Mine (MMT)	8,173	12,087	13,264	13,054	15,274	11.4%

*average annual growth rate

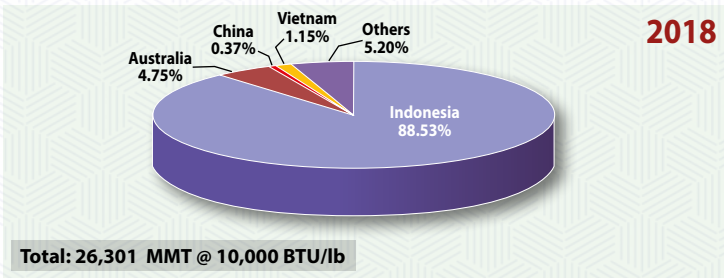
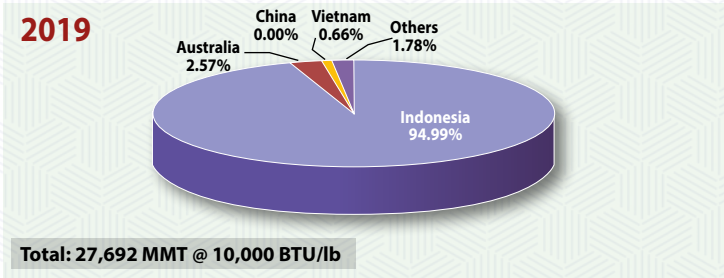
(a) average annual growth rate from 2009 to 2016

(b) average annual growth rate from 2009 to 2018

(c) average annual growth rate from 2010 to 2019



Coal Importation, by Country of Source



in MMT @ 10,000 BTU/lb

Country	2009	2010	2011	2012	2013	2014
Indonesia	6,381	10,602	10,894	11,700	13,964	14,975
Australia (a)	-	65	-	195	201	-
China	527	18	-	-	-	-
Vietnam	118	278	68	0	249	191
Others** (b)	-	3	-	-	-	15
Total	7,027	10,966	10,963	11,895	14,415	15,182

Country	2015	2016	2017	2018	2019	AAGR*
Indonesia	16,673	17,988	19,663	23,285	26,305	15.2%
Australia (a)	306	1,310	1,401	1,249	711	30.4%
China	-	-	-	96	1	-45.5%
Vietnam	168	270	219	303	182	4.4%
Others** (b)	132	462	984	1,368	494	39.0%
Total	17,279	20,030	22,268	26,301	27,692	14.7%

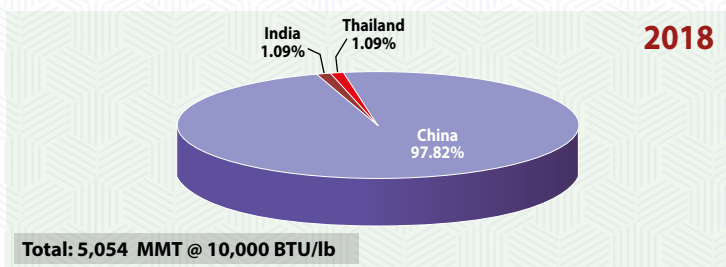
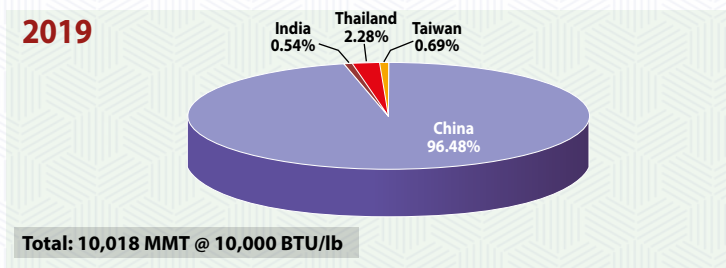
*average annual growth rate

(a) AAGR from 2010 to 2019

(b) AAGR from 2015 to 2019

**Imports from Russia, Taiwan, South Korea, South Africa and USA

Coal Exportation, by Country of Destination



in MMT @ 10,000 BTU/lb

Country	2009	2010	2011	2012	2013	2014
China	493	3,115	2,682	2,942	2,987	4,630
India	760	309	-	57	-	55
Hongkong ^(a)	49	105	-	-	-	270
Japan	15	-	-	-	-	-
Thailand	651	484	55	164	218	309
Taiwan	26	19	-	11	196	78
S. Korea ^(b)	-	66	-	-	-	207
Others*** ^(c)	-	-	-	-	-	217
Total	1,994	4,099	2,736	3,173	3,401	5,767

Country	2015	2016	2017	2018	2019	AAGR*
China	2,760	6,565	5,719	4,944	9,665	34.7%
India	-	47	159	55	55	-23.2%
Hongkong ^(a)	-	-	-	-	-	40.7%
Japan**	-	-	-	-	-	-100.0%
Thailand	322	223	105	55	229	-9.9%
Taiwan	-	-	190	-	70	10.3%
S. Korea ^(b)	-	-	-	-	-	33.2%
Others*** ^(c)	23	-	-	-	-	-89.3%
Total	3,105	6,835	6,172	5,054	10,018	17.5%

*average annual growth rate (AAGR)

(a) average annual growth rate from 2009 to 2014

(b) average annual growth rate from 2010 to 2014

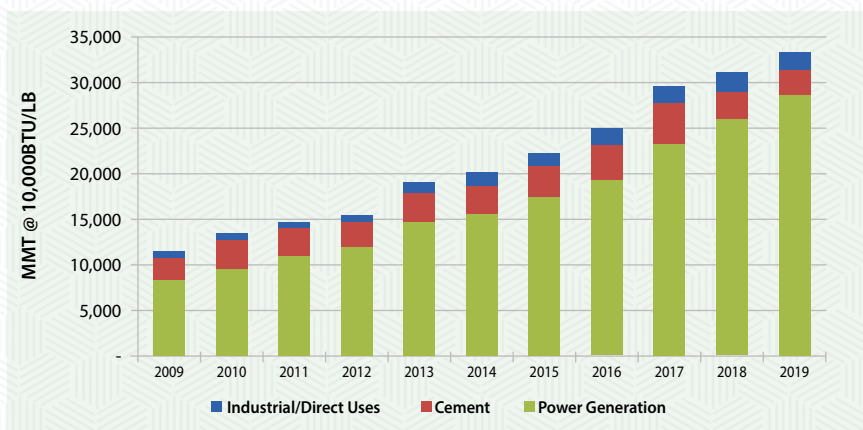
(c) average annual growth rate from 2014 to 2015

**one entry only

***includes Cambodia, Papua New Guinea, and Vietnam



Coal Consumption, by Major Type of User



in MMT @ 10,000 BTU/lb

	2009	2010	2011	2012	2013	2014
Power Generation	8,416	9,643	10,961	11,937	14,791	15,587
Cement	2,450	3,118	3,127	2,799	3,156	3,203
Industrial/Direct Uses*	628	559	551	581	1,005	1,372
Total	11,494	13,321	14,639	15,317	18,952	20,163

	2015	2016	2017	2018	2019	AAGR**
Power Generation	17,554	19,386	23,327	26,101	28,654	13.0%
Cement	3,348	3,893	4,423	2,848	2,754	1.2%
Industrial/Direct Uses*	1,104	1,515	1,569	2,027	1,714	10.6%
Total	22,006	24,794	29,320	30,976	33,122	11.2%

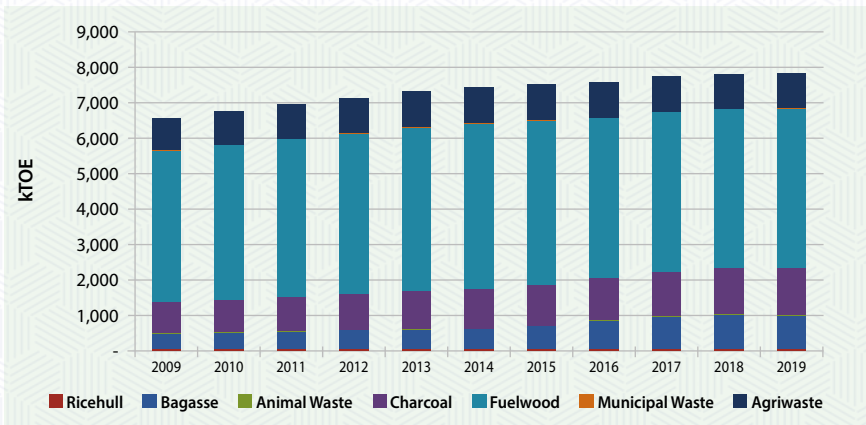
*non-energy use as raw materials

**average annual growth rate



Renewable Energy

Biomass Production, by Fuel Type



in kTOE

	2009	2010	2011	2012	2013	2014
Municipal Waste	4	4	13	11	17	19
Animal Waste	18	18	19	19	20	20
Ricehull	50	51	52	52	54	55
Bagasse	424	445	477	515	533	540
Charcoal	876	917	958	1,005	1,058	1,107
Agriwaste	881	912	936	949	980	992
Fuelwood	4,245	4,331	4,419	4,483	4,575	4,623
Total	6,496	6,679	6,874	7,035	7,237	7,356

	2015	2016	2017	2018	2019	AAGR*
Municipal Waste	11	5	6	6	7	6.3%
Animal Waste	21	21	21	21	22	2.1%
Ricehull	55	56	57	58	58	1.6%
Bagasse	627	780	899	942	919	8.1%
Charcoal	1,138	1,193	1,236	1,281	1,329	4.3%
Agriwaste	982	967	968	958	947	0.7%
Fuelwood	4,596	4,472	4,465	4,458	4,454	0.5%
Total	7,431	7,494	7,651	7,725	7,736	1.8%

*average annual growth rate



Geothermal

	2007	2008	2009	2010	2011	2012	
Installed Generating Capacity (MW)	1,958	1,958	1,953	1,966	1,783	1,848	
Dependable Generating Capacity (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	2018	2019
Installed Generating Capacity (MW)	1,868	1,918	1,917	1,916	1,916	1,944	1,928
Dependable Generating Capacity (MW)	1,482	1,607	1,601	1,689	1,752	1,770	1,792
Electricity Generation (GWh)	9,605	10,308	11,044	11,070	10,270	10,435	10,691

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 (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	2018	2019
Installed Generating Capacity (MW)	3,521	3,543	3,600	3,618	3,627	3,701	3,760
Dependable Generating Capacity (MW)	2,983	2,982	3,073	3,181	3,269	3,473	3,508
Electricity Generation (GWh)	10,019	9,137	8,665	8,111	9,611	9,384	8,025

Wind

	2007	2008	2009	2010	2011	2012	
Installed Generating Capacity (MW)	25	33	33	33	33	33	
Dependable Generating Capacity (MW)	9	33	33	20	33	17	
Electricity Generation (GWh)	58	61	64	62	88	75	
	2013	2014	2015	2016	2017	2018	2019
Installed Generating Capacity (MW)	33	283	427	427	427	427	427
Dependable Generating Capacity (MW)	17	103	379	383	383	427	427
Electricity Generation (GWh)	66	152	748	975	1,094	1,153	1,042



Solar

	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (MW)	1	1	1	1	1	1
Dependable Generating Capacity (MW)	1	1	1	1	1	0
Electricity Generation (GWh)	1	1	1	1	1	1

	2013	2014	2015	2016	2017	2018	2019
Installed Generating Capacity (MW)	1	23	165	765	885	896	921
Dependable Generating Capacity (MW)	0	17	125	594	700	740	737
Electricity Generation (GWh)	1	17	139	1,097	1,201	1,249	1,246

Biomass

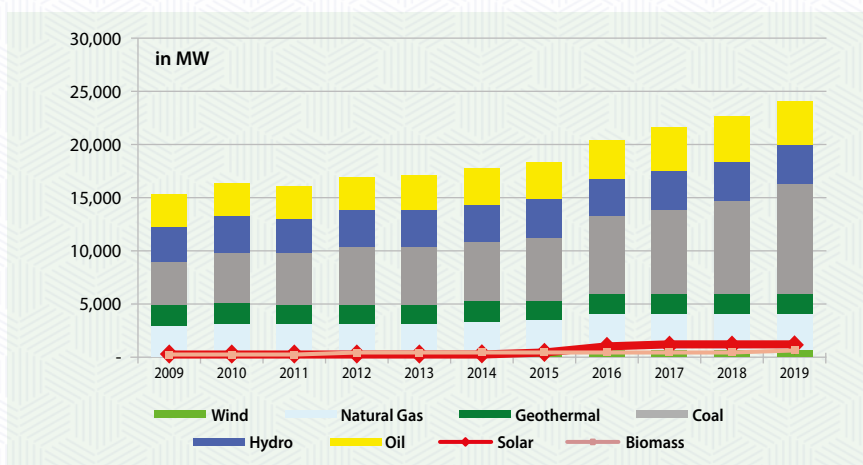
	2007	2008	2009	2010	2011	2012
Installed Generating Capacity (MW)	-	-	30	38	83	119
Dependable Generating Capacity (MW)	-	-	10	20	46	76
Electricity Generation (GWh)	-	-	14	27	115	183

	2013	2014	2015	2016	2017	2018	2019
Installed Generating Capacity (MW)	119	131	221	233	224	258	363
Dependable Generating Capacity (MW)	76	81	146	157	160	182	227
Electricity Generation (GWh)	212	196	367	726	1,013	1,105	1,040



Power

Installed Generating Capacity, by Source



in MW

	2009	2010	2011	2012	2013	2014
Total Installed Capacity	15,610	16,358	16,162	17,025	17,325	17,944
Coal	4,277	4,867	4,917	5,568	5,568	5,708
Oil	3,193	3,193	2,994	3,074	3,353	3,476
Natural Gas	2,831	2,861	2,861	2,862	2,862	2,862
Renewable Energy	5,309	5,437	5,391	5,521	5,541	5,898
Geothermal	1,953	1,966	1,783	1,848	1,868	1,918
Hydro	3,291	3,400	3,491	3,521	3,521	3,543
Wind	33	33	33	33	33	283
Solar ^(a)	1	1	1	1	1	23
Biomass	30	38	83	119	119	131

	2015	2016	2017	2018	2019	AAGR*
Total Installed Capacity	18,765	21,423	22,728	23,815	25,531	5%
Coal	5,963	7,419	8,049	8,844	10,417	9%
Oil	3,610	3,616	4,153	4,292	4,262	3%
Natural Gas	2,862	3,431	3,447	3,453	3,453	2%
Renewable Energy	6,330	6,958	7,079	7,227	7,399	3%
Geothermal	1,917	1,916	1,916	1,944	1,928	0%
Hydro	3,600	3,618	3,627	3,701	3,760	1%
Wind	427	427	427	427	427	29%
Solar ^(a)	165	765	885	896	921	109%
Biomass	221	233	224	258	363	28%

*average annual growth rate

(a) average annual growth rate from 2014 to 2019



Power Generation, by Source and Grid

in GWh

Luzon	2009	2010	2011	2012	2013	2014
Coal	14,091	20,047	19,681	21,878	25,756	27,346
Oil	1,864	3,287	1,291	1,800	1,601	2,342
Natural Gas	19,887	19,518	20,591	19,642	18,783	18,686
Renewable Energy	9,132	7,413	8,454	8,993	8,679	8,392
Geothermal	3,516	3,323	3,486	3,588	3,399	3,817
Hydro	5,549	4,014	4,836	5,292	5,156	4,357
Biomass ^(a)	3	14	44	37	60	65
Solar ^(b)	-	-	-	-	-	-
Wind	64	62	88	75	66	152
Total	44,975	50,265	50,017	52,312	54,820	56,766

Luzon	2015	2016	2017	2018	2019	AAGR*
Coal	29,680	33,143	33,953	37,362	40,508	11%
Oil	1,845	2,562	2,379	2,188	2,674	4%
Natural Gas	18,878	19,854	20,547	21,334	22,354	1%
Renewable Energy	9,711	10,938	11,633	11,845	10,640	2%
Geothermal	4,096	4,227	3,910	3,871	3,647	0%
Hydro	4,769	5,011	5,730	5,945	5,084	-1%
Biomass ^(a)	187	439	599	594	592	51%
Solar ^(b)	66.43	494.95	495.98	503.13	493.25	65%
Wind	592	767	899	931	824	29%
Total	60,113	66,498	68,512	72,728	76,177	5%

Visayas	2009	2010	2011	2012	2013	2014
Coal	822	1,529	4,032	4,701	4,690	4,449
Oil	1,864	1,727	683	734	796	766
Natural Gas ^(a)	-	-	-	-	7.81	4.27
Renewable Energy	6,038	5,820	5,740	6,047	5,606	5,794
Geothermal	5,985	5,771	5,616	5,930	5,463	5,627
Hydro	42	36	53	46	37	35
Biomass	10.96	12.90	71.64	70.84	105.67	116.52
Solar ^(b)	-	-	-	-	-	15.04
Wind ^(c)	-	-	-	-	-	-
Total	8,724	9,075	10,456	11,483	11,100	11,014

Visayas	2015	2016	2017	2018	2019	AAGR*
Coal	4,968	5,270	6,624	6,785	7,962	25%
Oil	672	637	541	353	524	-12%
Natural Gas ^(a)	-	-	-	-	-	-45%
Renewable Energy	6,530	7,047	6,889	7,129	7,573	2%
Geothermal	6,105	5,974	5,564	5,737	6,278	0%
Hydro	38	64	90	73	57	3%
Biomass	158.86	276.05	414.48	439.27	355.65	42%
Solar ^(b)	70.56	524.66	626.96	658.24	665.42	113%
Wind ^(c)	156.66	208.51	194.16	221.66	217.60	9%
Total	12,170	12,955	14,054	14,266	16,060	6%



Mindanao	2009	2010	2011	2012	2013	2014
Coal	1,563	1,726	1,629	1,686	1,635	1,258
Oil	1,652	2,087	1,424	1,720	2,094	2,599
Natural Gas	-	-	-	-	-	-
Renewable Energy	5,020	4,590	5,650	5,721	5,618	5,624
Geothermal	823	834	841	731	743	864
Hydro	4,196	3,754	4,808	4,913	4,827	4,745
Biomass ^(a)	-	-	-	75.14	46.60	13.90
Solar	1.25	1.25	1.21	1.32	1.41	1.48
Wind	-	-	-	-	-	-
Total	8,235	8,403	8,703	9,127	9,347	9,481

Mindanao	2015	2016	2017	2018	2019	AAGR*
Coal	2,038	4,890	6,271	7,785	9,420	20%
Oil	3,369	2,462	867	633	554	-10%
Natural Gas	-	-	-	-	-	-
Renewable Energy	4,723	3,994	4,666	4,352	3,831	-3%
Geothermal	842	869	797	826	766	-1%
Hydro	3,858	3,036	3,791	3,366	2,885	-4%
Biomass ^(a)	21.40	11.05	-	71.59	92.65	3%
Solar	1.55	77.41	78.21	87.74	87.41	53%
Wind	-	-	-	-	-	-
Total	10,130	11,345	11,804	12,770	13,805	5%

Philippines	2009	2010	2011	2012	2013	2014
Coal	16,476	23,301	25,342	28,265	32,081	33,054
Oil	5,381	7,101	3,398	4,254	4,491	5,708
Natural Gas	19,887	19,518	20,591	19,642	18,791	18,690
Renewable Energy	20,191	17,823	19,845	20,762	19,903	19,810
Geothermal	10,324	9,929	9,942	10,250	9,605	10,308
Hydro	9,788	7,803	9,698	10,252	10,019	9,137
Biomass ^(a)	14	27	115	183	212	196
Solar ^(b)	1	1	1	1	1	17
Wind	64	62	88	75	66	152
Total	61,934	67,743	69,176	72,922	75,266	77,261
Self-sufficiency level (%)	66	57	61	59	56	53

Philippines	2015	2016	2017	2018	2019	AAGR*
Coal	36,686	43,303	46,847	51,932	57,890	13.4%
Oil	5,886	5,661	3,787	3,173	3,752	-3.5%
Natural Gas	18,878	19,854	20,547	21,334	22,354	1.2%
Renewable Energy	20,963	21,979	23,189	23,326	22,044	0.9%
Geothermal	11,044	11,070	10,270	10,435	10,691	0.3%
Hydro	8,665	8,111	9,611	9,384	8,025	-2.0%
Biomass ^(a)	367	726	1,013	1,105	1,040	49.9%
Solar ^(b)	139	1,097	1,201	1,249	1,246	137.4%
Wind	748	975	1,094	1,153	1,042	8.6%
Total	82,413	90,798	94,370	99,765	106,041	5.5%
Self-sufficiency level (%)	53	51	54	51	47	

*average annual growth rate

Luzon

(a) average annual growth rate from 2010 to 2019

(b) average annual growth rate from 2015 to 2019

Visayas

(a) average annual growth rate from 2013 to 2014

(b) average annual growth rate from 2014 to 2019

(c) average annual growth rate from 2015 to 2019

Mindanao

(a) average annual growth rate from 2012 to 2019

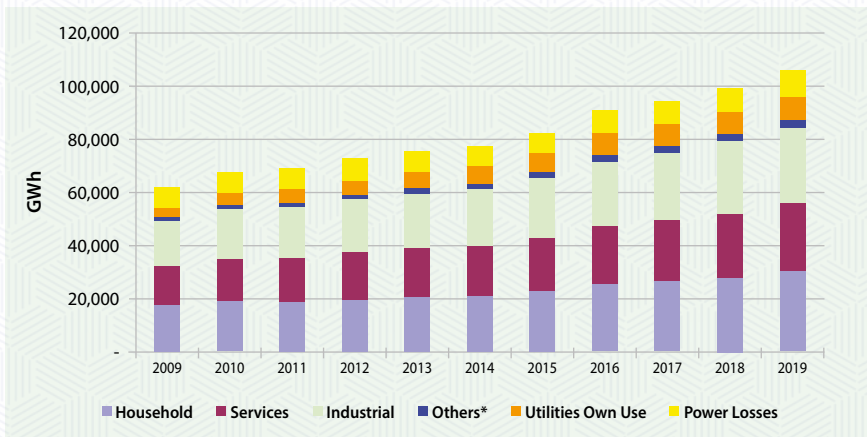
Philippines

(a) average annual growth rate from 2010 to 2019

(b) average annual growth rate from 2014 to 2019



Electricity Consumption, by Sector



in GWh

	2009	2010	2011	2012	2013	2014
Household	17,504	18,833	18,694	19,695	20,614	20,969
Services	14,756	16,261	16,624	17,777	18,304	18,761
Industrial	17,084	18,576	19,334	20,071	20,677	21,429
Others*	1,523	1,596	1,446	1,668	1,971	2,186
Utilities Own Use	3,524	4,677	5,398	5,351	5,959	6,646
Power Losses	7,542	7,800	7,680	8,360	7,741	7,270
Total	61,934	67,743	69,176	72,922	75,266	77,261

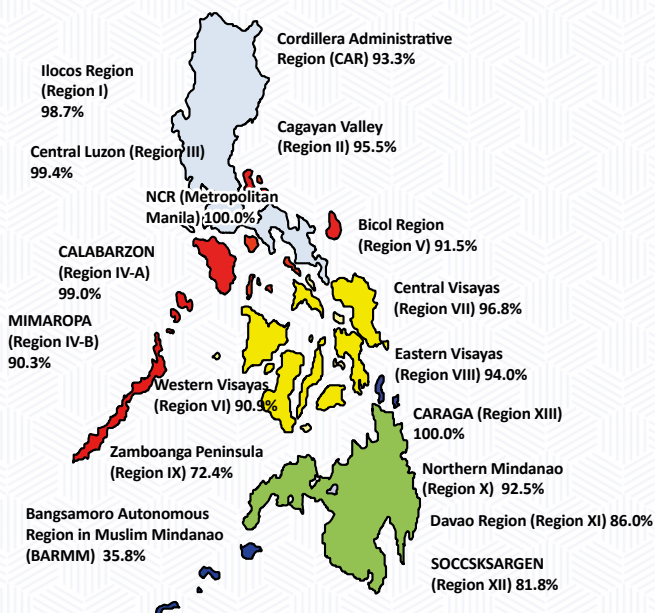
	2015	2016	2017	2018	2019	AAGR**
Household	22,747	25,631	26,782	28,261	30,552	5.7%
Services	20,085	21,770	22,768	24,016	25,476	5.6%
Industrial	22,514	24,119	25,573	27,587	28,194	5.1%
Others*	2,462	2,634	2,670	2,753	2,897	6.6%
Utilities Own Use	7,124	8,357	8,316	8,141	8,929	9.7%
Power Losses	7,481	8,286	8,262	9,007	9,994	2.9%
Total	82,413	90,798	94,370	99,765	106,041	5.5%

* others include Transport and AFF

**average annual growth rate



Regional Household Electrification Level*



Region	Potential HH**	Served HH	Unserved HH	HH Elect'n Level %
Luzon	13,318,261	14,489,298	295,378	98
NCR	3,095,766	3,417,347	0	100
CAR	395,881	389,522	26,446	93
I	1,151,629	1,225,613	15,117	99
II	804,380	822,480	35,910	96
III	2,566,558	2,923,947	14,650	99
IV-A	3,404,958	3,900,956	33,626	99
IV-B	682,668	676,104	66,557	90
V	1,216,421	1,133,329	103,072	92
Visayas	4,401,698	4,368,043	269,280	94
VI	1,716,637	1,636,255	155,923	91
VII	1,699,148	1,753,748	54,287	97
VIII	985,913	978,040	59,070	94
Mindanao	5,265,012	4,372,525	1,053,606	80
IX	799,219	578,282	220,937	72
X	1,042,929	1,006,024	78,189	93
XI	1,177,461	1,012,858	164,603	86
XII	1,050,680	859,060	191,620	82
CARAGA	574,338	692,624	0	100
BARMM	620,385	223,677	398,257	36
Philippines	22,984,971	23,229,866	1,618,264	93

* Dec 2019 electrification level report of REAMD-EPIMB as of June 29, 2020

**Based on the PSA 2015 Census of Population

Note: A new formula was adopted for computing the electrification level which is $(\text{potential HH} - \text{unserved HH}) / \text{potential HH}$



Transmission Profile

Transmission Lines (Circuit-Kilometers)	2008	2009	2010	2011	2012*	2013*
Luzon	9,527	9,568	9,638	9,529	9,374	9,439
Visayas	4,745	4,600	4,680	4,918	4,971	4,840
Mindanao	5,506	5,257	5,258	5,257	5,145	5,146
Total Philippines	19,778	19,425	19,576	19,704	19,490	19,425

Transmission Lines (Circuit-Kilometers)	2014	2015	2016	2017	2018	2019
Luzon	9,370	9,428	9,602	9,795	9,447	9,227
Visayas	4,821	4,813	4,476	4,973	5,379	5,299
Mindanao	5,272	5,832	6,081	6,081	5,679	5,553
Total Philippines	19,463	20,073	20,159	20,849	20,505	20,079

*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)	2008	2009	2010	2011	2012	2013
Luzon	18,861	18,452	19,937	20,590	21,170	21,110
Visayas	3,154	3,161	3,263	3,414	3,414	3,504
Mindanao	2,200	2,260	2,643	2,793	3,142	3,318
Total Philippines	24,215	23,873	25,843	26,796	27,726	27,932

Substation Capacity (In Million Volt-Amperes)	2014	2015	2016	2017	2018	2019
Luzon	23,395	23,785	25,900	25,887	26,598	28,021
Visayas	3,734	3,926	3,899	4,474	4,874	4,884
Mindanao	3,478	3,327	3,902	3,646	3,380	3,531
Total Philippines	30,607	31,038	33,701	34,007	34,852	36,436

Source: NGCP Transmission Development Plan 2016-2040 Volume 1 (Final Report)
2018-2019 - Power Situation Report



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 per cent 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.



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 (indigeneous, 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 obligations.
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



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