2020 KEY ENERGY STATISTICS

FOREWORD

The Key Energy Statistics (KES) presents the country's yearly designated energy statistics on energy supply and demand. The KES is published to provide the public with a timely, accurate, and complete representation of the country's energy sector awareness and appreciation of the developments therein as we hope that this KES will provide valuable inputs to energy research and studies for policy and decision making.

The KES is the product of the DOE, energy data users and producers' collaboration.

The Policy Formulation and Research Division (PFRD) of the EPPB is the focal division that handles the preparation of this KES, with data inputs from other DOE bureaus.

Table of Contents

Energy and Economy	**4**
Economic Parameters	4
Energy Intensity	5
Energy Elasticity	5
Energy Per Capita	5
Energy and Environment	**6**
GHG Emission, by Sector and Activity	6
GHG Emission, by Fuel Type	7
Environmental Emission Indicators	8
Energy Mix	**9**
Total Primary Energy Supply Mix	9
Total Energy and Self-Sufficiency Level	10
Energy Consumption	**11**
Total Final Energy Consumption, by Sector and Fuel Type	11
Oil and Gas	**13**
Oil and Gas Production, by Source	13
Crude Oil Importation, by Country of Source	14
Oil Products Importation, by Fuel Type	16
Oil Products Importation, by Country of Source	18

Oil Products Exportation, by Country of Destination 20
Oil Products Consumption, by Sector and Fuel Type 21
Oil Products Consumption, by Type 23
Oil Products Consumption, by Sector 25
Coal 27
Coal Production, by Source 27
Coal Importation, by Country of Source 28
Coal Exportation, by Country of Destination 30
Coal Consumption, by Major Type of User 32
Renewable Energy 33
Biomass Production, by Fuel Type 33
Geothermal, Hydropower, Wind, Solar, Biomass 35
Power 37
Installed Generating Capacity, by Source 37
Power Generation, by Source and Grid 42
Electricity Consumption, by Sector 46
Regional Household Electrification Level 48
Transmission Profile 51
Glossary 52
Units of Measurement and Conversion Table 55

Energy and Economy

Energy and Economic Indicators

	2019	2020	GR
GDP (in billion pesos: at constant 2018 prices)	19,382.8	17,527.2	-9.6%
Total Final Energy Consumption (in MTOE)	36.3	32.4	-10.7%
Total Primary Energy Supply (in MTOE)	59.9	56.4	-5.8%
Population (in million)	108.3	109.9	1.5%
Forex (in Pesos/USD)	50.7	48.0	-5.3%
Average Crude Price (in USD / barrel)	66.8	49.8	-25.4%

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*

Energy and Economic Indicators

Indicator	2019	2020	GR
Intensity			
Energy to GDP* (TOE/Php 1M)	3.1	3.2	3.5%
Oil to GDP (BBL/Php 100,000)	0.8	0.8	-3.3%
Electricity to GDP (Wh/Php)	5.5	5.8	6.1%
Elasticity			
Energy to GDP	0.4	0.7	81.7%
Oil to GDP	0.5	1.5	223.7%
Electricity to GDP	1.0	0.4	-58.9%
Energy Per Capita (TOE/person)	0.6	0.5	-7.3%

* GDP Rebased 2018 @ constant price

Energy and Environment

GHG Emission, by Sector and Activity

$MtCO_2e$[1]

Sector and Activity	2019	2020	GR
Industry	13.0	10.6	-18.1%
Transport	35.6	27.4	-22.9%
Others	11.1	11.2	0.6%
Services	6.9	7.3	4.7%
Household	3.5	3.3	-5.8%
Agriculture	0.7	0.6	-8.1%
Electricity Generation	69.4	70.0	0.9%
Energy[2]	1.0	0.8	-26.1%
Total	**130.1**	**120.0**	**-7.7%**

Notes:
(1) Million tons of CO_2 Equivalent ($MTCO_2e$)
(2) includes Oil refining, Electricity and other Energy sector own use and losses

GHG Emission, by Fuel Type

$MtCO_2e$

Fuel type	2019	2020	GR
Liquid Fossils (Oil)	53.9	45.2	-16.2%
Solid Fossils (Coal)	67.7	67.1	-0.8%
Gaseous Fossil (Natural Gas)	8.5	7.7	-9.3%
Total	**130.1**	**120.0**	**-7.7%**

Energy and Environment

Environmental Emission Indicators

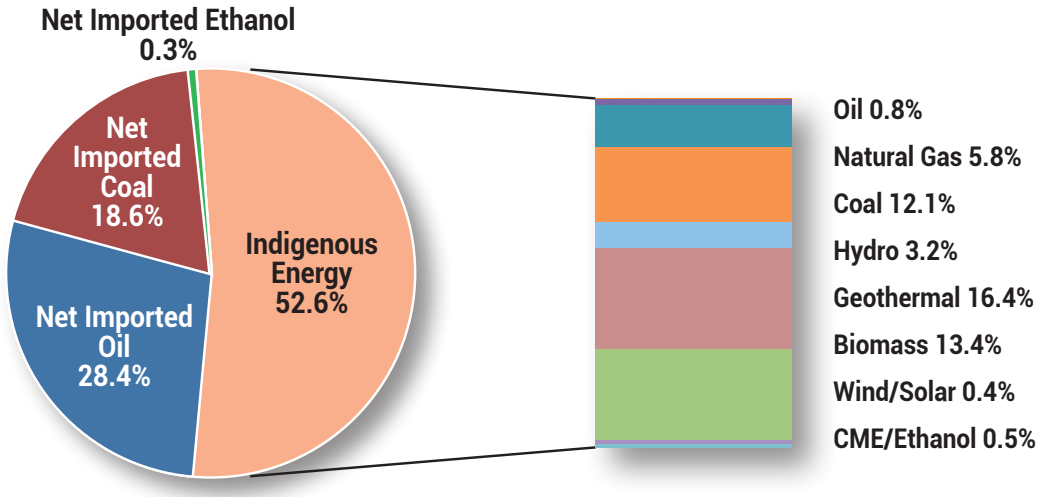
GHG emission is expressed in carbon dioxide equivalent (CO_2e) which accounts for the global warming potential (GWP) of CH_4 and N_2O, as prescribed by the Inter-governmental Panel on Climate Change (IPCC). GWP is the ratio of the warming resulting from the emission of one kilogram of a greenhouse gas to that of one kilogram emission of CO_2 over a fixed period of time (i.e. CH_4 and N2O GWP is 21 times and 310 times the CO_2 emission, respectively).

Indicator	2019	2020	GR
GHG emission-to-GDP ratio (tCO_2e/PhP 100K, 2000=100)	0.67	0.68	2.0%
GHG emission per capita (tCO_2e/person)	1.20	1.09	-9.1%
GHG emission per Electricity Generation (tCO_2e/MWh)	0.65	0.69	5.1%
GHG emission per Oil consumption (tCO_2e/TOE)	2.70	2.65	-1.8%
GHG emission per TPES (tCO_2e/TOE)	2.17	2.13	-2.0%

Energy Mix

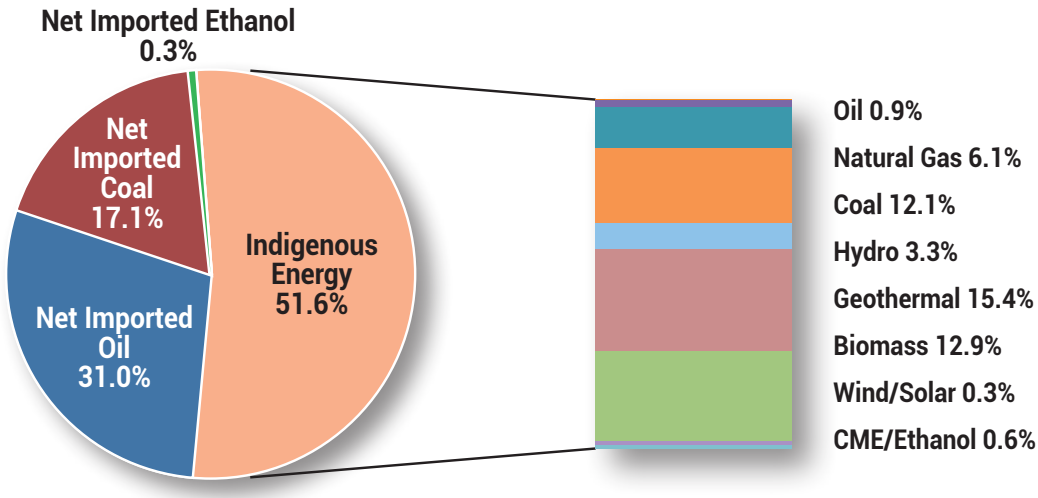
Total Primary Energy Supply Mix

2020



Total: 56.4 MTOE
Self Sufficiency - 52.6%

2019



Total: 59.9 MTOE
Self Sufficiency - 51.6%

Total Primary Energy and Self-Sufficiency Level

In kTOE

	2019	2020	GR
Indigenous Energy	30,906.2	29,675.5	-4.0%
Oil	522.6	456.3	-12.7%
Natural Gas	3,626.0	3,288.3	-9.3%
Coal	7,257.9	6,835.7	-5.8%
Hydro	1,997.9	1,790.4	-10.4%
Geothermal	9,192.4	9,249.2	0.6%
Biomass	7,735.7	7,563.2	-2.2%
Wind	89.6	88.3	-1.5%
Solar	107.1	118.0	10.2%
Biofuels	376.9	286.1	-24.1%
Net Imported Energy	28,945.8	26,691.6	-7.8%
Oil	18,531.9	15,996.9	-13.7%
Coal	10,223.7	10,500.3	2.7%
Biofuels	190.2	194.5	2.2%
Total Energy	**59,852.0**	**56,367.2**	**-5.8%**
Renewable Energy (RE)	**19,689.9**	**19,289.7**	**-2.0%**
Clean Energy (RE + Natural Gas)	**23,315.9**	**22,578.0**	**-3.2%**
Self Sufficiency (%)	**51.6**	**52.6**	

Energy Consumption

Total Final Energy Consumption, by Sector and Fuel Type

In kTOE

	2019	2020	GR
Industry	**7,306**	**6,205**	**-15.1%**
Coal	2,217	1,494	-32.6%
Natural Gas	62	37	-39.5%
Oil	1,381	1,557	12.7%
Biomass[a]	1,207	905	-25.0%
Biodiesel	15	13	-9.8%
Electricity	2,424	2,198	-9.3%
Transport	**12,697**	**9,843**	**-22.5%**
Natural Gas	-	-	-
Oil	12,181	9,416	-22.7%
Biodiesel	127	97	-23.5%
Bioethanol	380	324	-14.8%
Electricity	9	7	-28.3%
Households	**9,711**	**10,028**	**3.3%**
Oil	1,312	1,238	-5.7%
Biomass[b]	5,772	5,842	1.2%
Electricity	2,627	2,949	12.2%

Total Final Energy Consumption, by Sector and Fuel Type

In kTOE

	2019	2020	GR
Services	**4,936**	**4,611**	**-6.6%**
Oil	2,360	2,467	4.5%
Biomass[(c)]	353	325	-7.8%
Biodiesel	33	37	12.6%
Electricity	2,191	1,782	-18.6%
Agriculture	**473**	**437**	**-7.7%**
Oil	229	211	-8.0%
Biodiesel	4	4	-6.5%
Electricity	240	222	-7.5%
Non-Energy Use	**1,137**	**1,263**	**11.2%**
Oil	996	1,126	13.1%
Coal	141	137	-2.7%
Total	**36,260**	**32,388**	**-10.7%**

* does not include energy for power application
(a) includes ricehull, fuelwood, bagasse, agriwaste and animal waste
(b) includes charcoal, fuelwood, and agriwaste
(c) includes ricehull, charcoal, and fuelwood

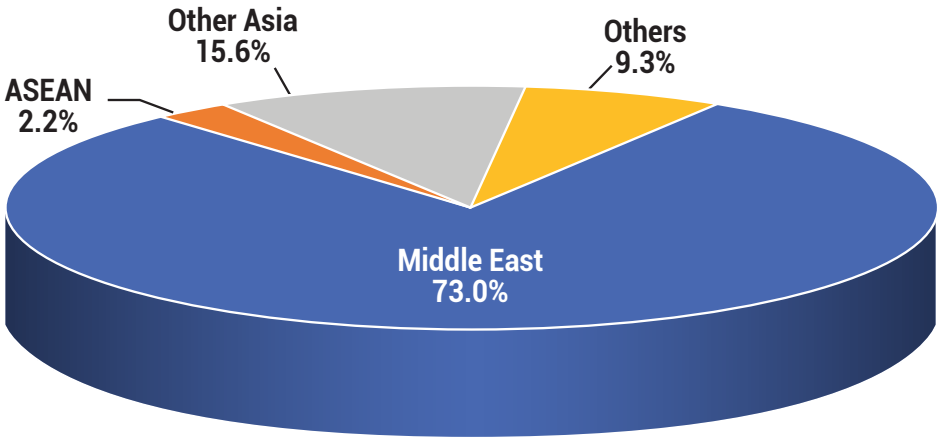
Oil and Gas

Oil and Gas Production, by Source

	2019	2020	GR
In MB			
Total Oil	**776**	**700**	**-9.8%**
Nido	21	-	-100.0%
Matinloc	2	-	-100.0%
Galoc	744	695	-6.6%
Alegria	9	5	-48.6%
Total Condensate	**4,006**	**3,469**	**-13.4%**
Malampaya Condensate	4,006	3,469	-13.4%
in MMSCF			
Total Gas	**155,690**	**141,191**	**-9.3%**
Malampaya Gas	155,690	141,191	-9.3%

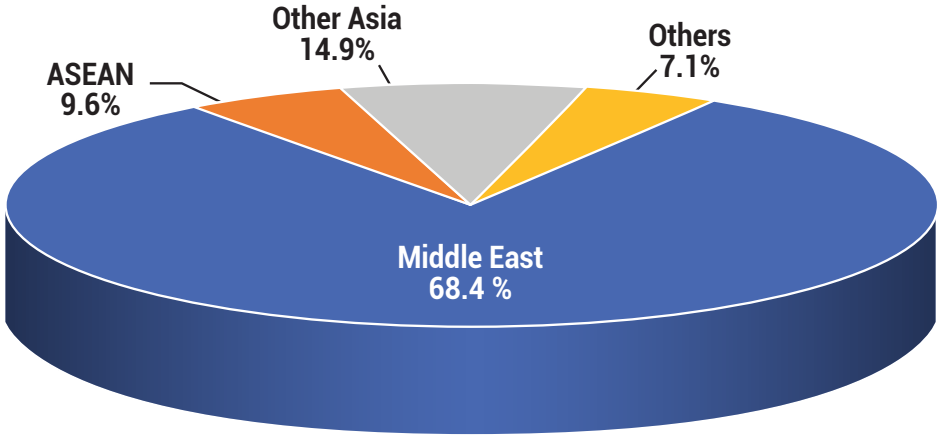
Crude Oil Importation, by Country of Source

2020



Total: 32,942 MB

2019



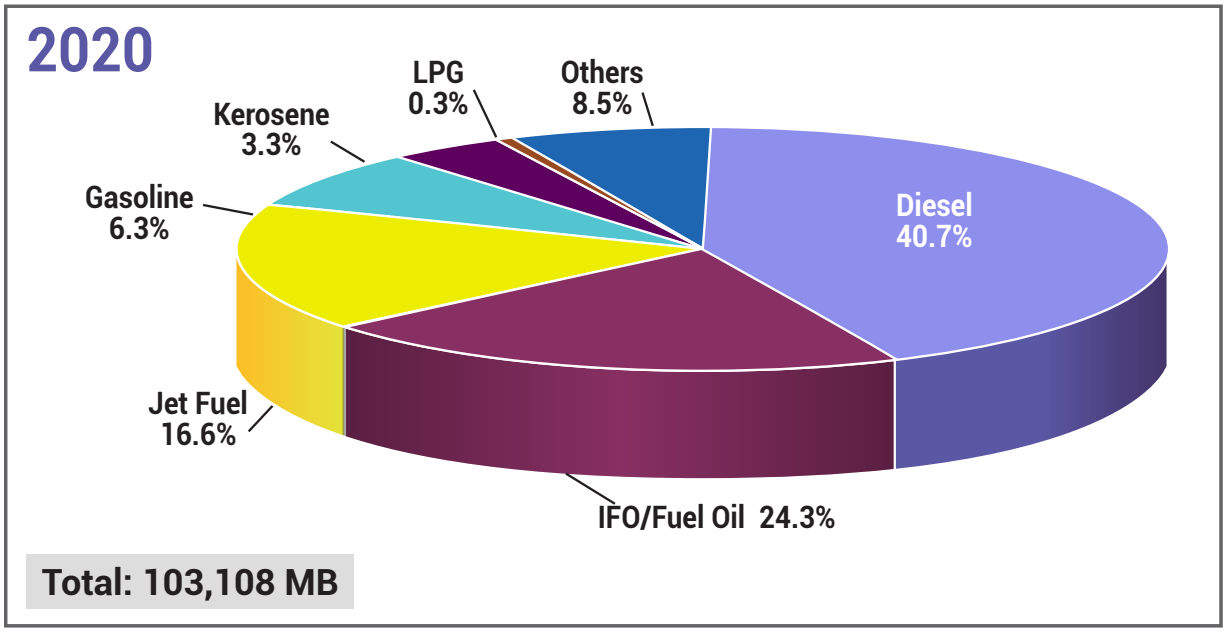
Total: 60,666 MB

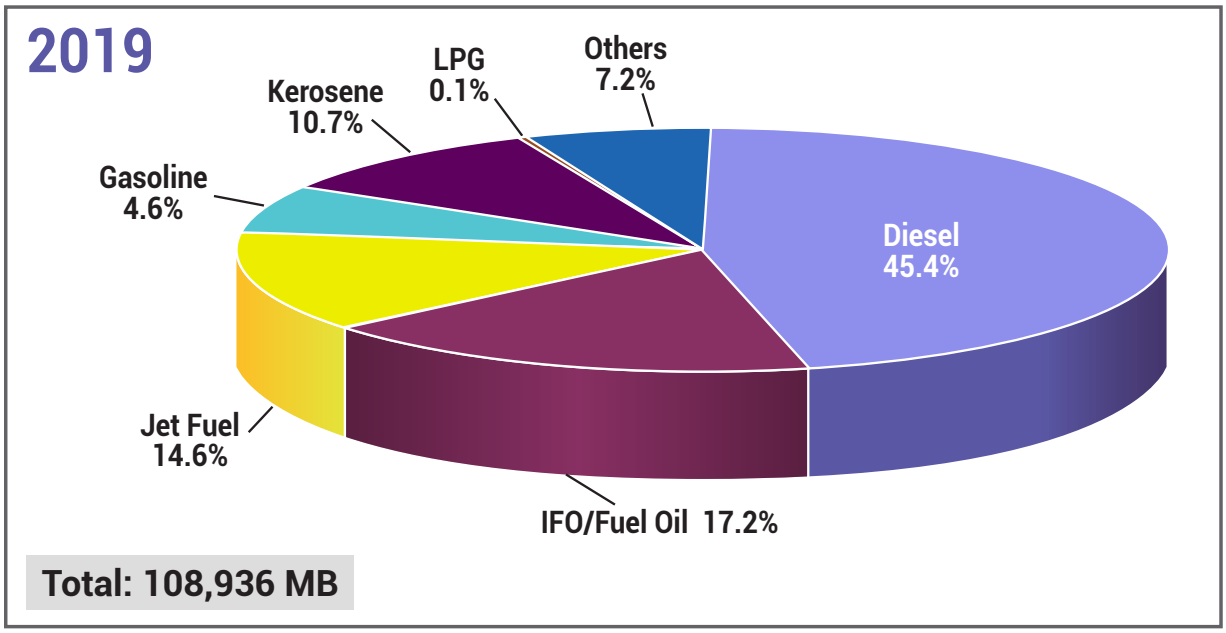
Crude Oil Importation, by Country of Source

In MB

Source	2019	2020	GR
Middle East	**41,520.5**	**24,039.8**	**-42.1%**
Saudi Arabia	15,498.0	15,044.1	-2.9%
Kuwait	15,925.3	7,991.4	-49.8%
UAE	9,136.3	505.9	-94.5%
Qatar	-	498.5	-
Oman	960.8	-	-100.0%
ASEAN	**5,838.0**	**709.0**	**-87.9%**
Brunei	1,484.2	-	-100.0%
Malaysia	4,085.0	628.9	-84.6%
Singapore	268.8	80.2	-70.2%
Other Asia	**9,010.1**	**5,141.8**	**-42.9%**
Russia	8,680.9	5,061.4	-41.7%
Korea	88.3	-	-100.0%
Taiwan	240.9	80.4	-66.6%
Others	**4,297.7**	**3,051.5**	**-29.0%**
Australia	260.0	-	-100.0%
Nigeria	299.2	1,544.5	416.2%
Brazil	2,193.7	962.4	-56.1%
USA	1,544.8	544.7	-64.7%
Total	**60,666.3**	**32,942.2**	**-45.7%**

Oil Products Importation, by Fuel Type





Oil Products Importation, by Fuel Type

MB

Fuel	2019	2020	GR
Diesel	49,462	41,977	-15.1%
IFO/Fuel Oil	18,726	25,038	33.7%
Jet Fuel	15,957	17,109	7.2%
Gasoline	5,061	6,481	28.1%
Kerosene	11,708	3,408	-70.9%
LPG	134	304	126.7%
Others	7,889	8,791	11.4%
Total	**108,936**	**103,108**	**-5.4%**

Others include asphalt, solvents, naphtha/ reformate, condensate

Oil Products Importation, by Country of Source

MB

Source	2019	2020	GR
Middle East	**8,436.2**	**8,492.1**	**0.7%**
Iran	5.0	-	-100.0%
KSA	1,242.0	1,407.2	13.3%
Kuwait	1,323.3	1,383.9	4.6%
Oman	175.7	-	-100.0%
Qatar	657.4	1,867.7	184.1%
UAE	5,032.7	3,833.3	-23.8%
ASEAN	**24,697.3**	**34,651.4**	**40.3%**
Brunei	222.1	4,293.2	1833.1%
Indonesia	589.8	1,737.8	194.7%
Malaysia	9,161.1	9,338.3	1.9%
Singapore	12,551.3	18,188.2	44.9%
Thailand	265.9	408.6	53.7%
Vietnam	1,907.1	685.2	-64.1%

Oil Products Importation, by Country of Source

MB

Source	2019	2020	GR
OTHER ASIA	**73,156.4**	**55,326.8**	**-24.4%**
China	45,472.3	32,247.5	-29.1%
Hong Kong	0.4	20.0	4433.4%
India	3,218.6	4,409.0	37.0%
Japan	1,372.7	517.5	-62.3%
Russia	-	511.9	-
South Korea	22,701.1	16,045.4	-29.3%
Taiwan	391.3	1,575.4	302.7%
OTHERS	**2,646.3**	**4,637.6**	**75.2%**
Total	**108,936.1**	**103,107.8**	**-5.4%**

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

Oil Products Exportation, by Country of Destination

MB

Destination	2019	2020	GR
ASEAN	**8,572.2**	**5,911.1**	**-31.0%**
Indonesia	18.8	-	-100.0%
Malaysia	1,785.8	2,570.8	44.0%
Singapore	4,602.4	2,753.0	-40.2%
Thailand	1,818.3	476.1	-73.8%
Vietnam	346.9	111.3	-67.9%
OTHER ASIA	**3,036.6**	**1,993.7**	**-34.3%**
China	1,802.3	903.2	-49.9%
Hong Kong	-	306.1	-
India	-	36.1	-
Japan	-	130.0	-
South Korea	907.3	20.7	-97.7%
Taiwan	327.0	597.6	82.7%
OTHERS	**67.2**	**0.5**	**-99.3%**
Saipan	2.0	0.5	-76.9%
USA	65.2	-	-100.0%
Total	**11,676.1**	**7,905.3**	**-32.3%**

Oil Products Consumption, by Sector and Fuel Type

in MB

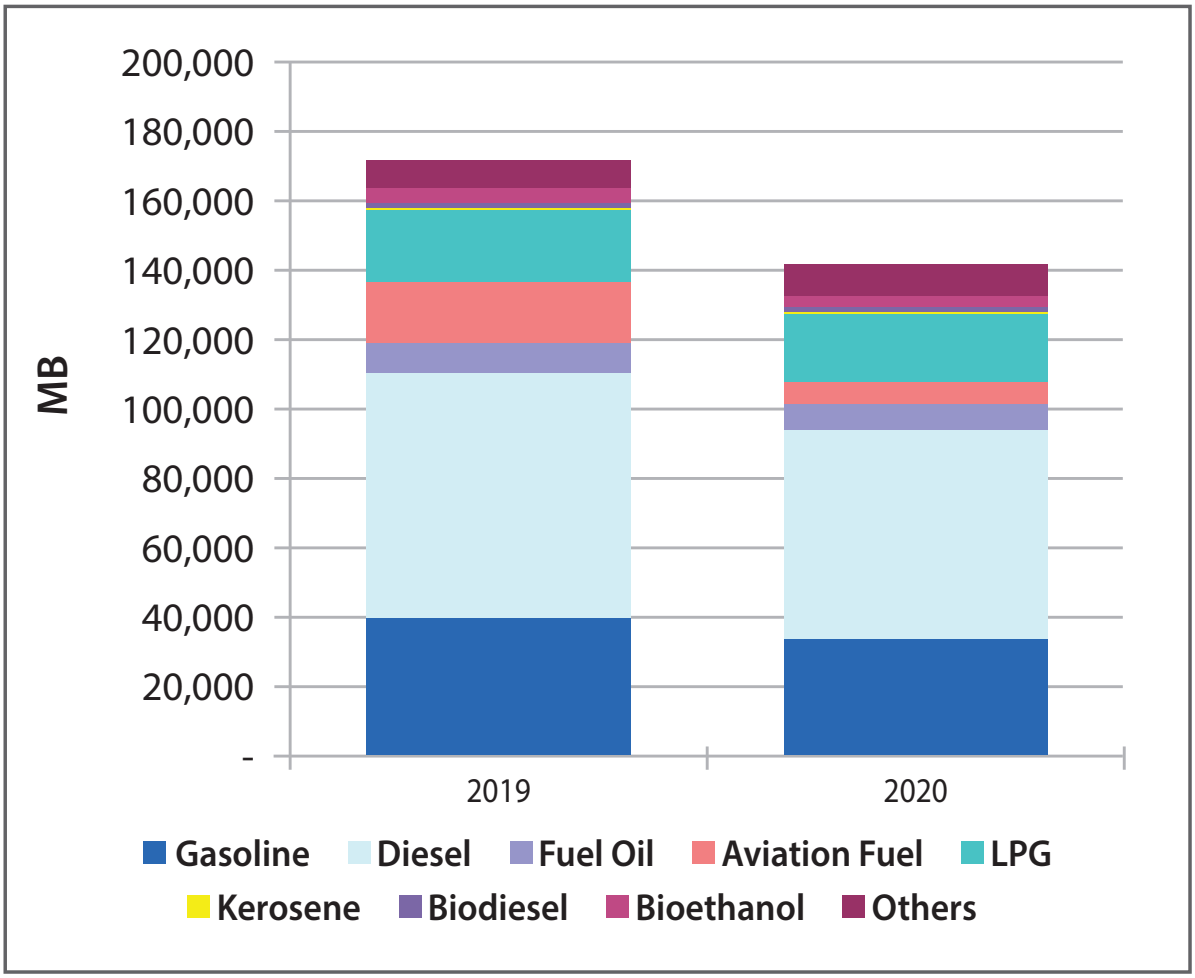
	2019	2020	GR
Industry	**10,732.3**	**12,015.5**	**12.0%**
Kerosene	15	131	787.4%
LPG	1,872	1,934	3.3%
Diesel	5,598	6,163	10.1%
Fuel Oil	3,136	3,686	17.6%
Biodiesel	112	101	-9.8%
Transport	**112,364.8**	**82,345.6**	**-26.7%**
Gasoline	39,504.1	33,608.6	-14.9%
Diesel	48,204.8	36,625.1	-24.0%
Fuel Oil	1,636.9	1,487.7	-9.1%
Aviation Fuel	17,674.4	6,188.4	-65.0%
LPG	95.4	47.6	-50.1%
Bioethanol	4,275.6	3,643.4	-14.8%
Biodiesel	973.8	744.8	-23.5%
Households	**14,014.5**	**13,272.1**	**-5.3%**
LPG	13,445.1	12,870.3	-4.3%
Kerosene	569.4	401.8	-29.4%

Oil Products Consumption, by Sector and Fuel Type

in MB

	2019	2020	GR
Services	**19,386.1**	**20,121.1**	**3.8%**
LPG	5,370.0	5,028.3	-6.4%
Diesel	12,668.4	13,934.4	10.0%
Fuel Oil	1,095.2	874.1	-20.2%
Biodiesel	252.6	284.3	12.6%
Agriculture	**1,740.7**	**1,602.3**	**-8.0%**
Gasoline	73.9	79.7	8.0%
Kerosene	3.0	4.1	37.5%
Diesel	1,614.9	1,473.0	-8.8%
Fuel Oil	16.7	15.4	-8.1%
Biodiesel	32.2	30.1	-6.5%
Power Generation	**5,727.6**	**3,704.4**	**-35.3%**
Diesel	3,014.7	2,148.9	-28.7%
Fuel Oil	2,645.7	1,511.5	-42.9%
Biodiesel	67.2	43.9	-34.6%
Non-Energy Use	**7,850.8**	**8,955.6**	**14.1%**
Total	**171,817**	**142,017**	**-17.3%**

Oil Products Consumption, by Type



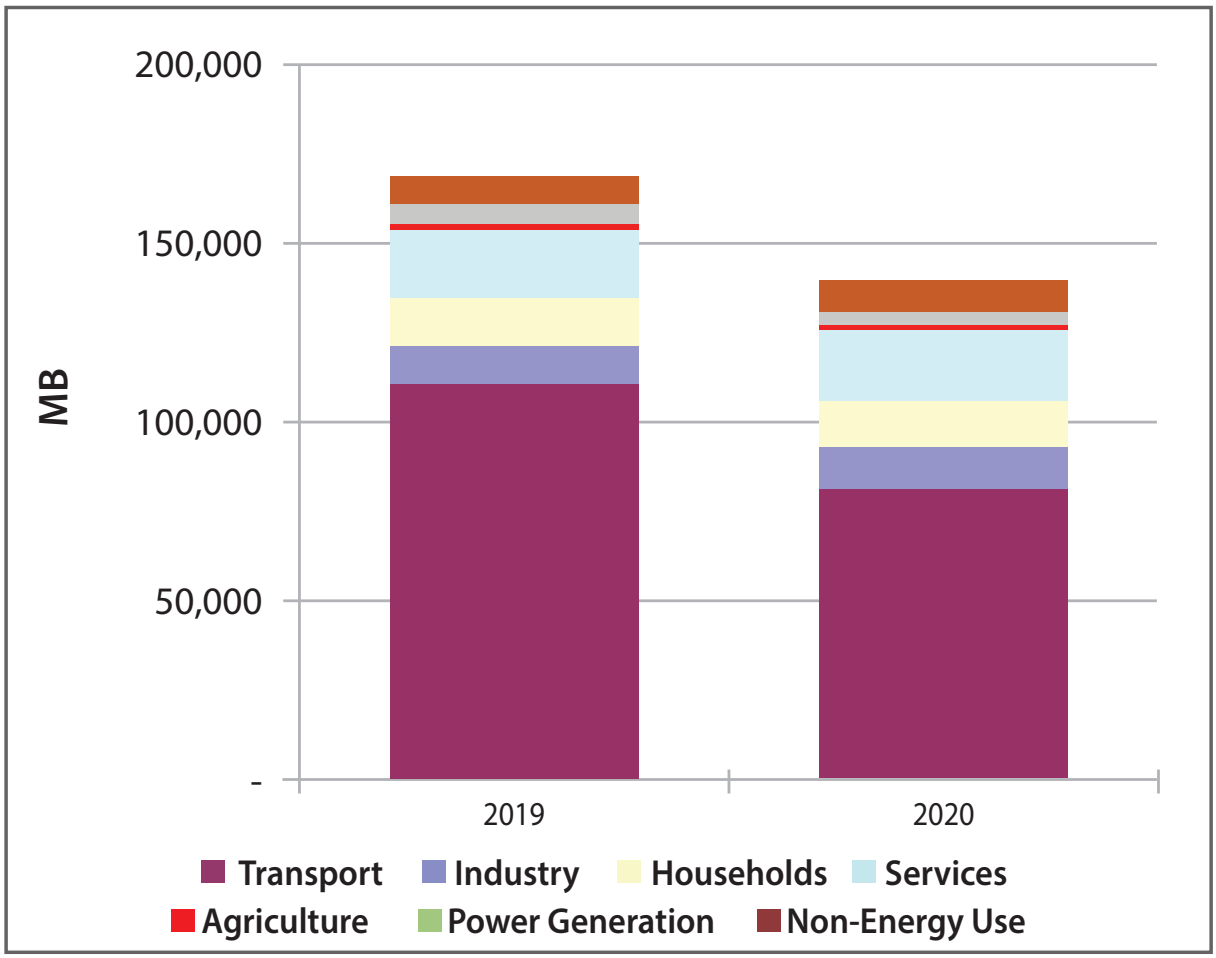
Oil Products Consumption, by Type

MB

	2019	2020	GR
Gasoline	39,578	33,688	-14.9%
Diesel	71,101	60,345	-15.1%
Fuel Oil	8,530	7,575	-11.2%
Aviation Fuel	17,674	6,188	-65.0%
LPG	20,782	19,881	-4.3%
Kerosene	587	537	-8.6%
Biodiesel	1,437	1,204	-16.2%
Bioethanol	4,276	3,643	-14.8%
Others	7,851	8,956	14.1%
Total	**171,817**	**142,017**	**-17.3%**

Others include asphalts, solvents, naphtha/reformate, condensate

Oil Products Consumption, by Sector



Oil Products Consumption, by Sector

MB

	2019	2020	GR
Transport	112,365	82,346	-26.7%
Industry	10,732	12,015	12.0%
Households	14,014	13,272	-5.3%
Services	19,386	20,121	3.8%
Agriculture	1,741	1,602	-8.0%
Power Generation	5,728	3,704	-35.3%
Non-Energy Use	7,851	8,956	14.1%
Total	**171,817**	**142,017**	**-17.3%**

Coal

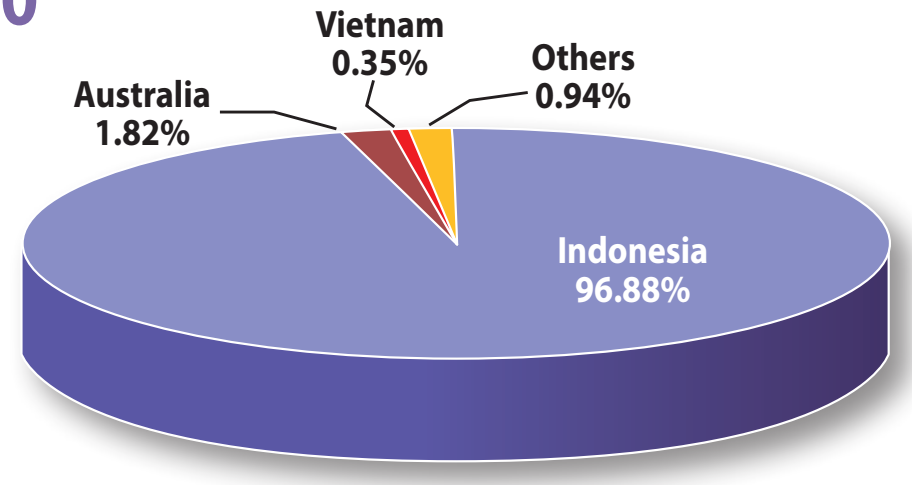
Coal Production, by Source

in MMT at 10,000 BTU/lb

	2019	2020	GR
Semirara	13,670.4	12,879.7	-5.8%
Cebu	6.2	2.0	-67.5%
Albay, Bicol	8.6	12.6	47.3%
Negros	0.7	0.3	-57.6%
Small-scale Mines	65.4	56.7	-13.4%
Total Production	13,751.3	12,951.3	-5.8%
Run of Mine (MMT)	**15,273.5**	**13,257.4**	**-13.2%**

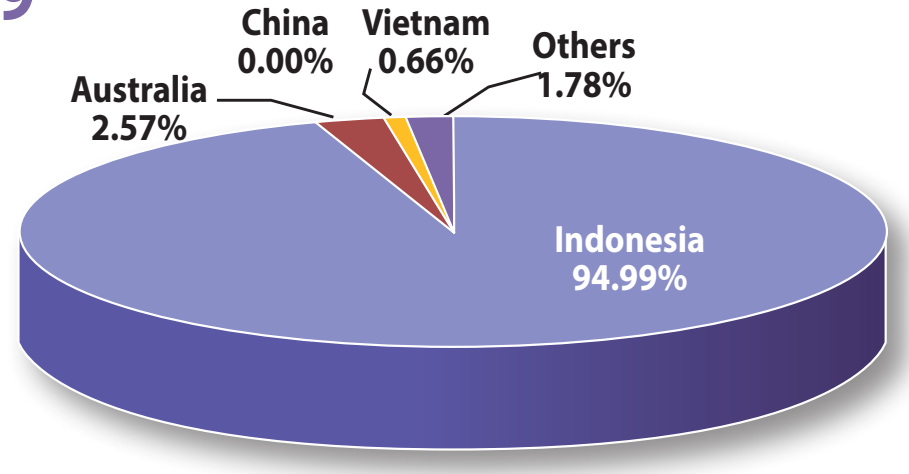
Coal Importation, by Country of Source

2020



Total: 29,524 MMT @ 10,000 BTU/lb

2019



Total: 27,692 MMT @ 10,000 BTU/lb

Coal Importation, by Country of Source

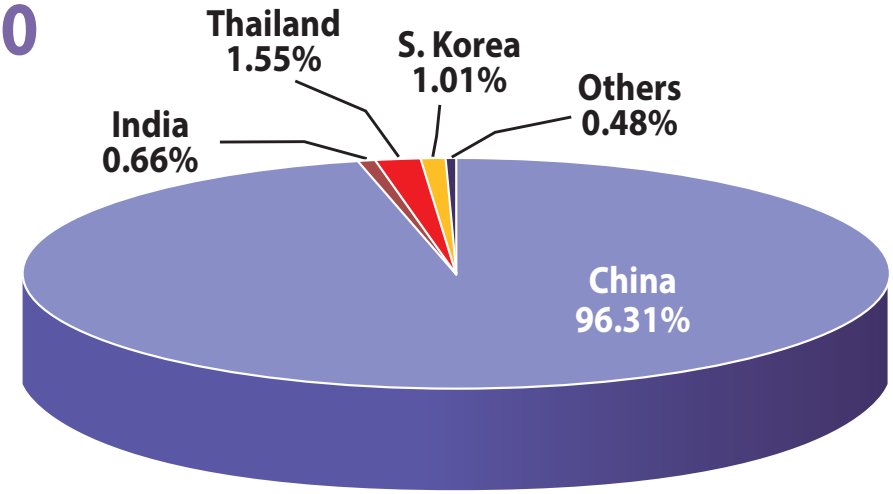
in MMT at 10,000 BTU/lb

Country	2019	2020	GR
Indonesia	26,305.3	28,603.8	8.7%
Australia	710.6	538.2	-24.3%
China	1.2	-	-100.0%
Vietnam	181.7	102.7	-43.5%
Others	493.5	278.9	-43.5%
Total	**27,692.3**	**29,523.7**	**6.6%**

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

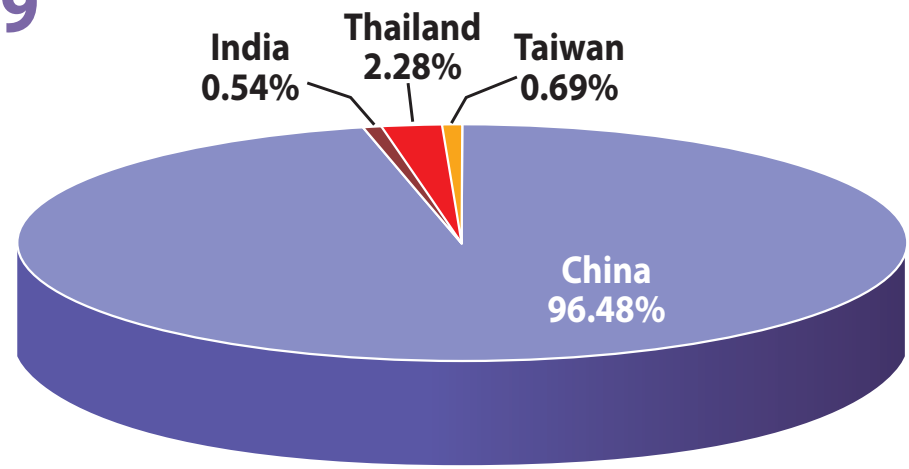
Coal Exportation, by Country of Destination

2020



Total: 7,525 MMT @ 10,000 BTU/lb

2019



Total: 9,980 MMT @ 10,000 BTU/lb

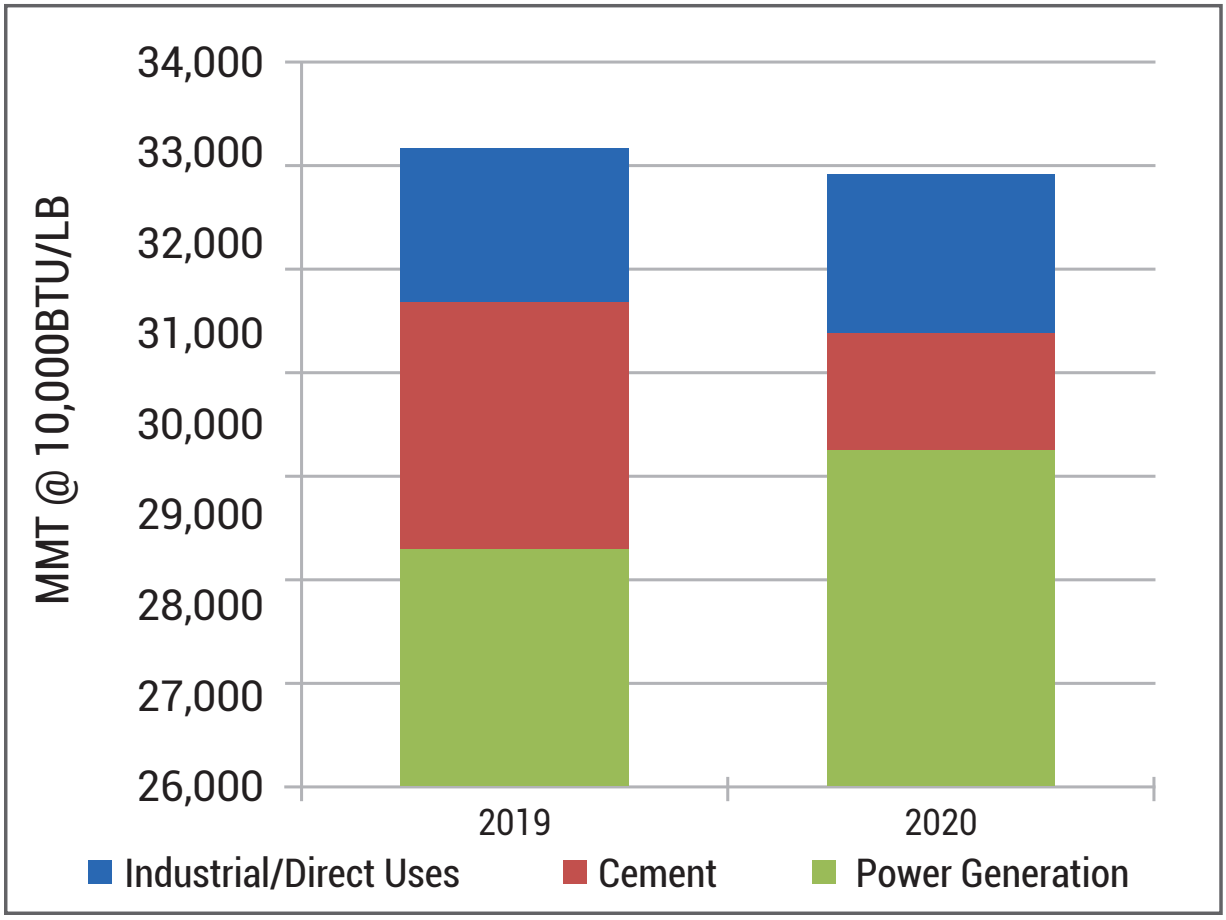
Coal Exportation, by Country of Destination

in MMT at 10,000 BTU/lb

Country	2019	2020	GR
China	9,629	7,247	-24.7%
India	54	50	-8.3%
Thailand	228	116	-48.9%
Taiwan	69	-	-100.0%
S. Korea	-	76	
Others	-	36	
Total	**9,980**	**7,525**	**-24.6%**

**Others include Cambodia, Papua New Guinea, and Vietnam

Coal Consumption, by Major Type of User



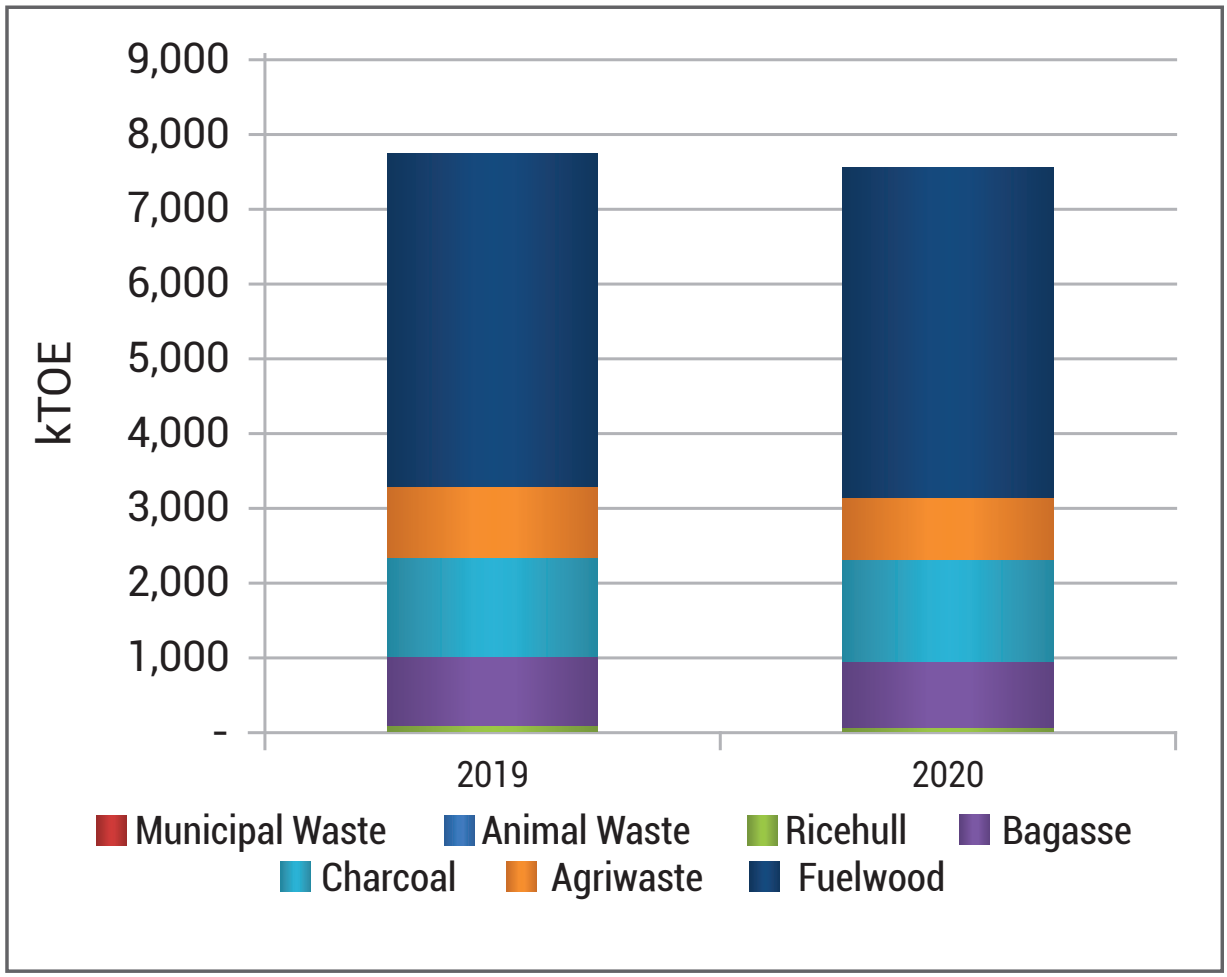
in MMT at 10,000 BTU/lb

	2019	2020	GR
Power Generation	28,654	29,755	3.8%
Cement	2,754	1,312	-52.4%
Industrial/Direct Uses	1,714	1,779	3.8%
TOTAL	**33,122**	**32,846**	**-0.8%**

*Industrial uses - non-energy use as raw materials

Renewable Energy

Biomass Production, by Fuel Type



Biomass Production, by Fuel Type

in kTOE

	2019	2020	GR
Fuelwood	4,454	4,421	-0.7%
Charcoal	1,329	1,364	2.6%
Agriwaste	947	836	-11.8%
Bagasse	919	877	-4.5%
Ricehull	58	43	-25.0%
Animal Waste	22	16	-25.0%
Municipal Waste	7	5	-26.4%
Total	**7,736**	**7,563**	**-2.2%**

Geothermal

	2017	2018	2019	2020
Installed Generating Capacity (MW)	1,916	1,944	1,928.0	1,928.1
Dependable Generating Capacity (MW)	1,752	1,770	1,792.3	1,753.1
Electricity Generation (GWh)	10,270	10,435	10,690.8	10,756.8

Hydropower

	2017	2018	2019	2020
Installed Generating Capacity (MW)	3,627	3,701	3,760.0	3,779.3
Dependable Generating Capacity (MW)	3,269	3,473	3,508.1	3,526.6
Electricity Generation (GWh)	9,611	9,384	8,025.5	7,192.0

Wind

	2017	2018	2019	2020
Installed Generating Capacity (MW)	427	427	427.0	442.9
Dependable Generating Capacity (MW)	383	427	426.9	442.9
Electricity Generation (GWh)	1,094	1,153	1,041.7	1,026.4

Solar

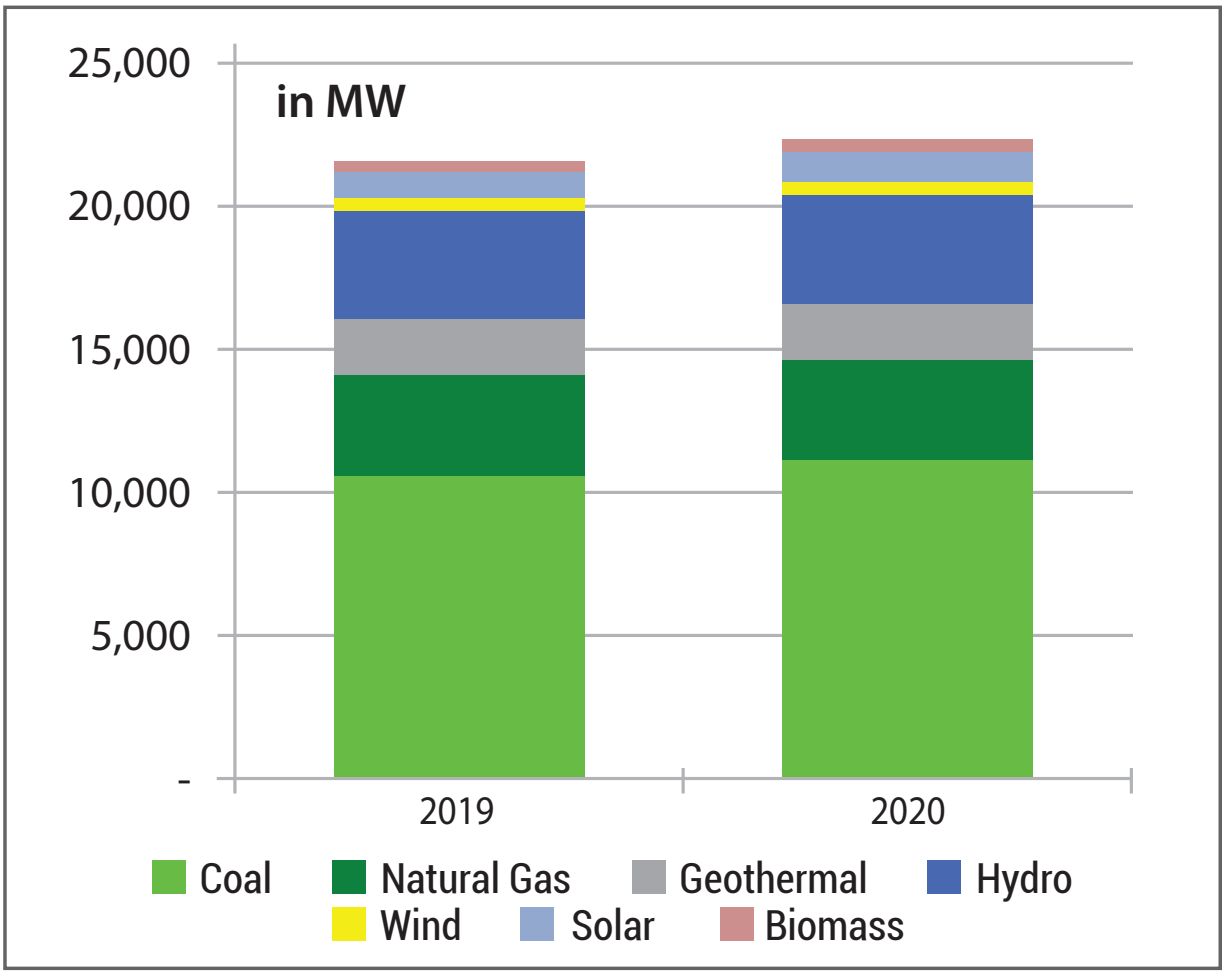
	2017	2018	2019	2020
Installed Generating Capacity (MW)	885	896	921.0	1,019.3
Dependable Generating Capacity (MW)	700	740	736.9	816.9
Electricity Generation (GWh)	1,201	1,249	1,246.1	1,372.6

Biomass

	2017	2018	2019	2020
Installed Generating Capacity (MW)	224	258	363.4	447.4
Dependable Generating Capacity (MW)	160	182	227.0	285.4
Electricity Generation (GWh)	1,013	1,105	1,040.3	1,261.0

Power

Installed Generating Capacity, by Source



Installed Generating Capacity, by Source

in MW

Luzon	2019	2020	GR
Coal	6,929	7,280	5.1%
Oil	2,585	2,642	2.2%
Natural Gas	3,452	3,452	0.0%
Renewable Energy	4,320	4,466	3.4%
Geothermal	865	865	0.0%
Hydro	2,593	2,593	0.0%
Biomass	164	195	19.2%
Solar	362	460	27.1%
Wind	337	353	4.7%
Total	**17,286**	**17,840**	**3.2%**

Installed Generating Capacity, by Source

in MW

Visayas	2019	2020	GR
Coal	1,399	1,399	0.0%
Oil	742	705	-4.9%
Natural Gas	1	1	0.0%
Renewable Energy	1,667	1,757	5.4%
Geothermal	955	955	0.0%
Hydro	19	21	6.2%
Biomass	127	216	69.7%
Solar	476	476	0.0%
Wind	90	90	0.0%
Total	**3,809**	**3,863**	**1.4%**

Installed Generating Capacity, by Source

in MW

Mindanao	2019	2020	GR
Coal	2,089	2,264	8.4%
Oil	936	889	-4.9%
Natural Gas	-	-	-
Renewable Energy	1,412	1,394	-1.2%
Geothermal	108	108	0.0%
Hydro	1,147	1,165	1.6%
Biomass	73	37	-49.3%
Solar	84	84	0.0%
Wind	-	-	-
Total	**4,436**	**4,548**	**2.5%**

Installed Generating Capacity, by Source

in MW

Philippines	2019	2020	GR
Coal	10,417	10,944	0.0%
Oil	4,262	4,237	5.1%
Natural Gas	3,453	3,453	-0.6%
Renewable Energy	7,399	7,653	0.0%
Geothermal	1,928	1,928	3.4%
Hydro	3,760	3,779	0.0%
Biomass	363	483	0.5%
Solar	921	1,019	33.1%
Wind	427	443	10.7%
Total	**25,531**	**26,286**	**3.7%**

Power Generation, by Source and Grid

in GWh

Luzon	2019	2020	GR
Coal	40,508	40,576	0.2%
Oil	2,674	1,804	-32.5%
Natural Gas	22,354	19,497	-12.8%
Renewable Energy	10,640	10,542	-0.9%
Geothermal	3,647	3,808	4.4%
Hydro	5,084	4,510	-11.3%
Biomass	592	780	31.7%
Solar	493	588	19.2%
Wind	824	855	3.8%
Total	**76,177**	**72,419**	**-4.9%**

Power Generation, by Source and Grid

in GWh

Visayas	2019	2020	GR
Coal	7,962	7,696	-3%
Oil	524	298	-43%
Natural Gas	-	-	0%
Renewable Energy	7,573	7,491	-1%
Geothermal	6,278	6,205	-1%
Hydro	57	65	14%
Biomass	356	374	5%
Solar	665	676	2%
Wind	218	171	-21%
Total	**16,060**	**15,485**	**-4%**

Power Generation, by Source and Grid

in GWh

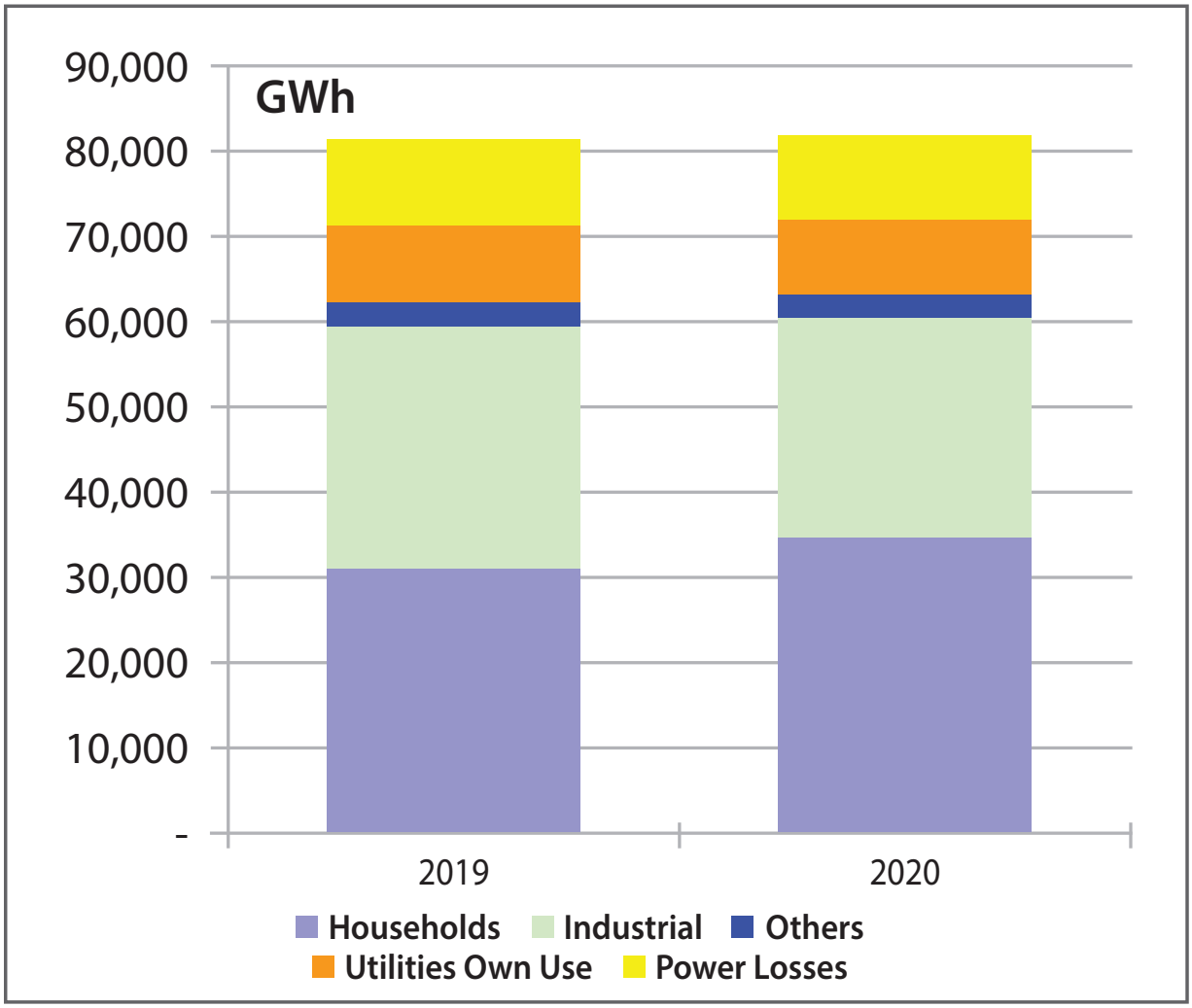
Mindanao	2019	2020	GR
Coal	9,420	9,904	5%
Oil	554	372	-33%
Natural Gas	-	-	0%
Renewable Energy	3,831	3,576	-7%
Geothermal	766	744	-3%
Hydro	2,885	2,617	-9%
Biomass	93	107	16%
Solar	87	108	24%
Wind	-	-	0%
Total	**13,805**	**13,852**	**0.3%**

Power Generation, by Source and Grid

in GWh

Philippines	2019	2020	GR
Coal	57,890	58,176	0.5%
Oil	3,752	2,474	-34%
Natural Gas	22,354	19,497	-13%
Renewable Energy	22,044	21,609	-2%
Geothermal	10,691	10,757	1%
Hydro	8,025	7,192	-10%
Biomass	1,040	1,261	21%
Solar	1,246	1,373	10%
Wind	1,042	1,026	-1%
Total	**106,041**	**101,756**	**-4%**
Self-sufficiency level (%)	**47**	**47**	

Electricity Consumption, by Sector



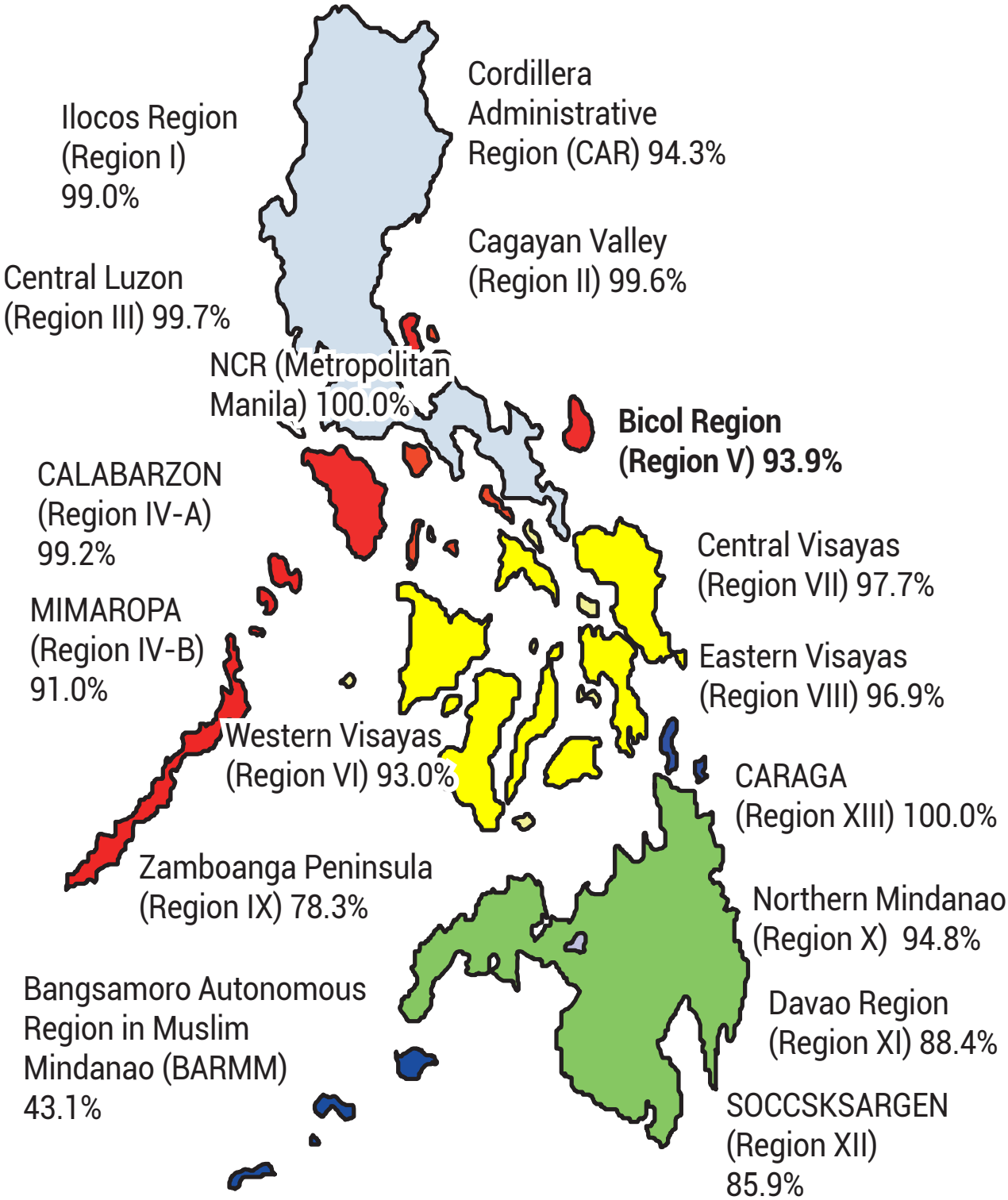
Electricity Consumption, by Sector

in GWh

	2019	2020	GR
Households	30,552	34,292	12%
Services	25,476	20,727	-19%
Industrial	28,194	25,566	-9%
Others	2,897	2,658	-8%
Utilities Own Use	8,929	8,771	-2%
Power Losses	9,994	9,742	-3%
Total	**106,041**	**101,756**	**-4%**

Others include Transport and Agriculture

Regional Household Electrification Level*



Region	Potential HH**	Served HH	Unserved HH (actual per DU)	Electrification Level (%)
CAR	395,881	399,298	22,563	94.3
I	1,151,629	1,263,437	11,320	99.0
II	804,380	887,587	2,963	99.6
III	2,566,558	3,039,828	6,776	99.7
IV-A	3,404,958	4,024,078	28,351	99.2
IV-B	682,668	690,981	61,395	91.0
V	1,216,421	1,178,337	73,789	93.9
NCR	3,095,766	3,491,459	0	100.0
Luzon	**13,318,261**	**14,975,005**	**207,157**	**98.4**
VI	1,716,637	1,720,332	120,551	93.0
VII	1,699,148	1,804,076	39,627	97.7
VIII	985,913	1,021,253	30,924	96.9
Visayas	**4,401,698**	**4,545,661**	**191,102**	**95.7**

Region	Potential HH**	Served HH	Unserved HH (actual per DU)	Electrification Level (%)
IX	799,219	625,789	173,445	78.3
X	1,042,929	1,041,535	54,172	94.8
XI	1,177,461	1,049,494	136,534	88.4
XII	1,050,680	902,616	148,064	85.9
CARAGA	574,338	717,314	0	100.0
ARMM	620,385	268,924	353,021	43.1
Mindanao	**5,265,012**	**4,605,672**	**865,236**	**83.6**
Philippines	**22,984,971**	**24,126,338**	**1,263,495**	**94.5**

** Dec 2020 electrification level report of REAMD-EPIMB as of 2021 May*
***Based on the PSA 2015 Census of Population*

Note:
"A new formula was adopted for computing the electrification level which is (potential HH - unserved HH)/potential HH

Transmission Profile

Transmission Lines (Circuit-Kilometers)	2018	2019	2020*
Luzon	9,447	9,227	9,396
Visayas	5,379	5,299	5,299
Mindanao	5,679	5,553	5,824
Total Philippines	**20,505**	**20,079**	**20,519**

Substation Capacity (In Million Volt-Amperes)	2018	2019	2020*
Luzon	26,598	28,021	27,955
Visayas	4,874	4,884	4,487
Mindanao	3,380	3,531	5,331
Total Philippines	**34,852**	**36,436**	**37,773**

Source: Power Situation Report
**NGCP TDP PLAN 2021-2040 Consultation Draft Report as of August 2020*

Glossary

Condensate	Liquid hydrocarbons separated from gas production.
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.
Energy 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.
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.
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.
Installed Capacity	The total of the capacities shown on the nameplates of the generating units in a powerplant.
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 Demand (TPED)	The sum of total final consumption, power generation, other energy sector (own use and losses).
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 (-)

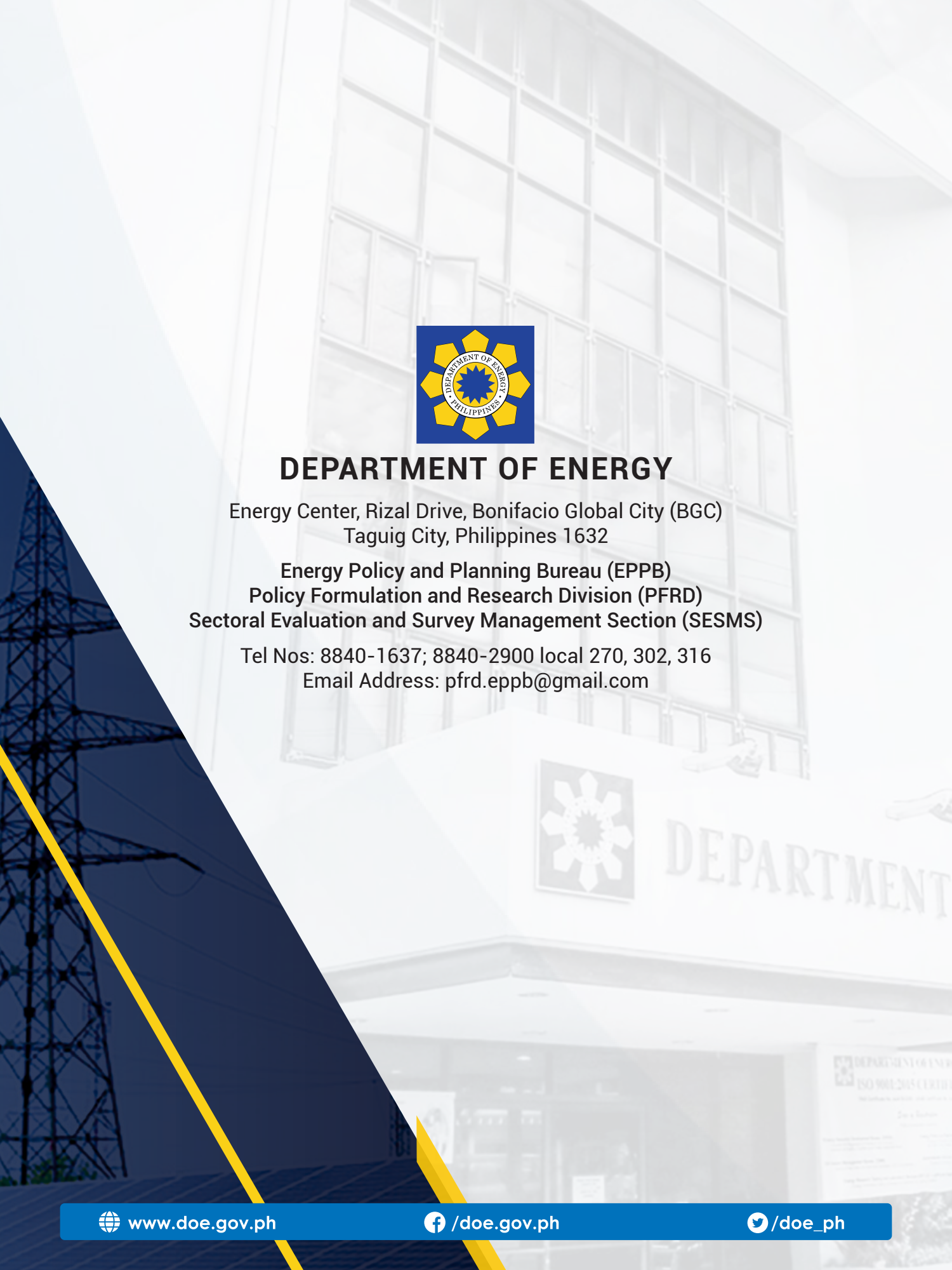
Units of Measurement

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
MTOE	Million tonnes of oil equivalent
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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