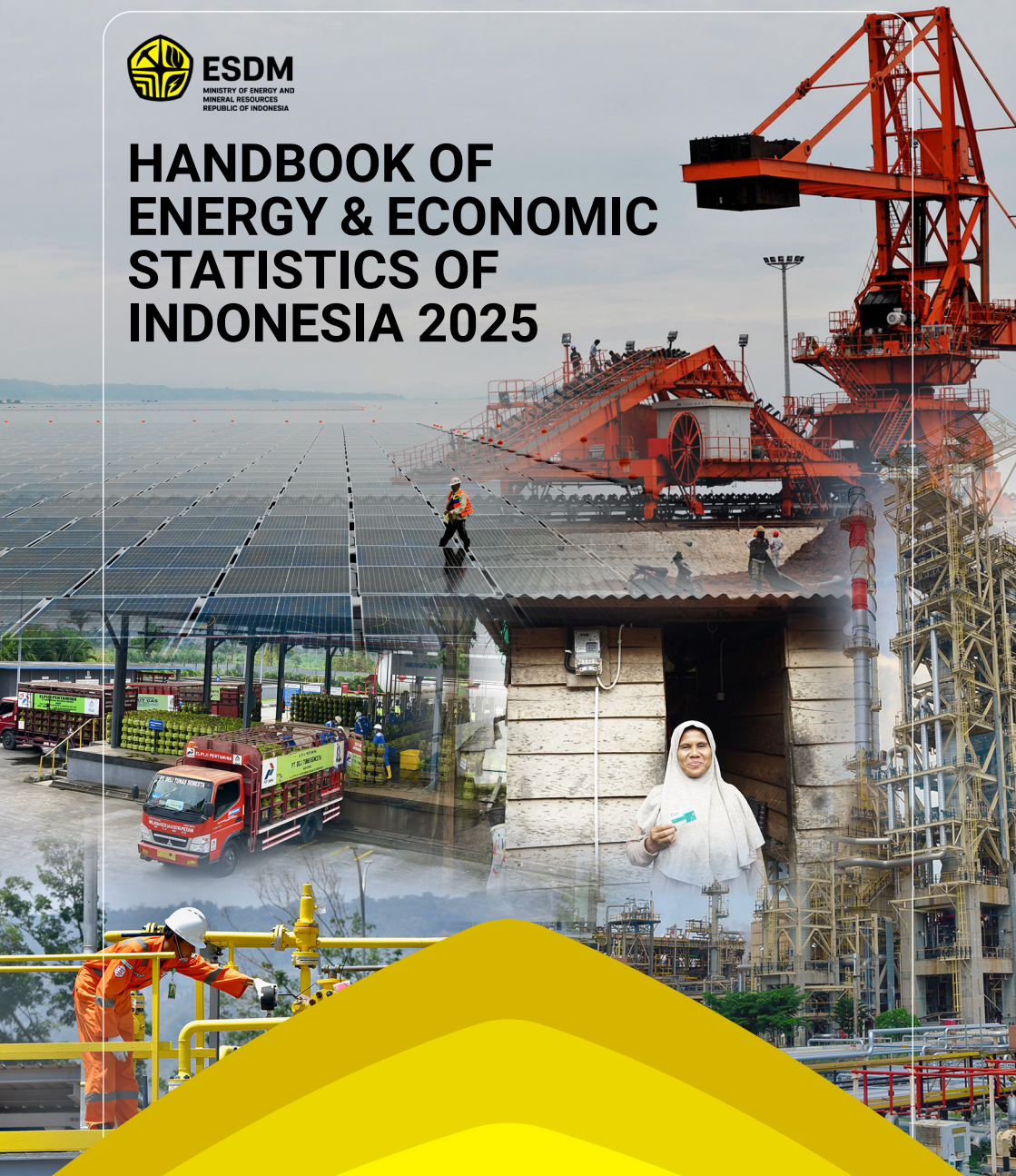
ISSN 2538-3464

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025



ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Team Handbook

Steering Committee

Erick Hutrindo	(Head of Center for Data and Information Technology)
Anton Budi Prananto	(Coordinator of Data Processing, Utilization and Dissemination Division)

Coordinators

Hanafi Suroyo	(Sub-Coordinator of Energy Data Processing, Utilization, and Dissemination Subdivision)
Novelya Martha Uly N.	(Sub-Coordinator of Mineral Data Processing, Utilization, and Dissemination Subdivision)

Technical Committee

Hafidz Muhammad Fahri	(Statistician and PIC Data)
Nurlita Kholishotunnisa	(Statistician and PIC Data)
Imam Gagas Anutomo	(Statistician)
Dini Anggreani	(Statistician)
Rifqi Ramadhan F.	(PIC Data)
Linda Ambarsari	(PIC Data)
Herlina Yuanningrat	(PIC Data)
Raden Jonathan M. C.	(PIC Data)
Indra Setiadi	(PIC Data)
Raden Rizky Hartanto	(PIC Data)
Tsaniyah Safrinanda	(Supporting Team)
Vony Mela Suzanti	(Supporting Team)

Preface

The updated Handbook of Energy & Economy Statistics of Indonesia represents the continued efforts of the Center for Data and Information Technology on Energy and Mineral Resources (CDI-EMR) to provide accurate and reliable data on Indonesia's energy and economic sectors in a unified publication.

Energy and economic data in Indonesia are often scattered across multiple sources, stored in various formats, and not readily accessible for comprehensive energy analysis. A major obstacle for researchers and policymakers is the lack of unified terminology among institutions, which often leads to misinterpretations in energy economics.

Furthermore, demand-side energy data remains critically scarce. Current frameworks rely heavily on supply-side metrics, assuming sales equal to consumption. In reality, price disparities between domestic and international markets lead to energy misuse and misrepresentation, meaning sales figures alone cannot accurately reflect actual use. To resolve this, this handbook provides energy consumption data estimated through key parametric calculations.

In 2025, the data classification for Natural Gas Liquids (NGLs) was shifted from natural gas to crude oil based on their specific hydrocarbon characteristics. Concurrently, the classification framework for power plants transitioned from grid connectivity (on-grid versus off-grid) to an ownership-based structure. The revised energy balance now accounts for International Marine Bunkers derived from OECD experimental data, alongside the inclusion of electric vehicle (EV) electricity consumption within the transportation framework.

We are committed to continuing the process of standardizing energy and economic data through ongoing updates of this handbook. The CDI-EMR will maintain collaboration with all relevant units within the Ministry of Energy and Mineral Resources (MEMR), as well as with external statistical agencies.

We extend our sincere appreciation to all contributors for their dedication and perseverance in the preparation of this publication. May God Almighty guide us in the wise and sustainable management of our energy resources for the benefit of the Indonesian people.

Jakarta, July 2026
Head of Center for Data and Information
Technology on Energy and Mineral Resources

Introduction

This Handbook of Energy and Economic Statistics of Indonesia contains the data on Indonesia's energy and economy from 2015 through 2025. There are some revised data from the previous edition of the Handbook for 2015 to 2024. The Handbook covering estimated energy demand of every sector. The tables and annexes are arranged as follow:

A. Tables

The tables are shown in 7 Main Categories, as follows:

- Table 1 Energy and Economic Indicators
- Table 2 Energy Balance Table
- Table 3 Energy Supply and Demand
- Table 4 Energy Prices
- Table 5 Energy Demand by Sector
- Table 6 Energy Supply by Energy Resource
- Table 7 Green House Gas Emission

B. Annexes

Annex 01. Methodology and Table Explanation, clarifying the methodologies adopted in preparing the tables data.

Annex 02. Glossary, containing important terms used in the tables and the respective units.

Annex 03. Conversion Factors, presenting the list of multiplication factors used to convert various original units of energy into BOE (Barrel Oil Equivalent).

List of Contents

Chapter 5

Chapter 6

List of Figures

Indonesia's Concise Energy Profile 2025

A. SOCIO ECONOMY[1)]		
Teritorial Area :	8,300,000.00	km^2
Land Area :	1,892,410.09	km^2
Population :	284,438.80	Thousand People
Household :	73,067.64	Thousand Households
GDP Nominal		
Total Amount :	23,821.10	Trillion Rupiah
Per Capita :	83,747.73	Thousand Rupiah per Year
B. ENERGY PRODUCTION		
Primary Energy Production		
Crude Oil :	221,229.15	Thousand Barrels
Natural Gas (net) :	2,464.71	BSCF
Coal :	817,478.70	Thousand Tonnes
Hydro Power :	30,736.00	GWh
Geothermal :	17,740.00	GWh
C. FINAL ENERGY CONSUMPTION	**1,400,307.47**	**Thousand BOE**
Energy Consumption by Type		
Coal :	364,475.59	Thousand BOE
Fuel :	515,223.12	Thousand BOE
Gas :	91,735.11	Thousand BOE
Electricity :	278,915.65	Thousand BOE
Briquette :	0.00	Thousand BOE
LPG :	78,968.61	Thousand BOE
Traditional Biomass :	13,195.33	Thousand BOE
Biogas :	654.26	Thousand BOE
Industrial Biomass :	54,715.30	Thousand BOE
Solar Water Heater :	2,420.86	Thousand BOE
Direct Use of Geothermal :	3.65	Thousand BOE
Energy Consumption by Sector (Excluded Non Energy Use)	**1,400,307.47**	**Thousand BOE**
Industry :	681,236.73	Thousand BOE
Transportation :	469,448.96	Thousand BOE
Household :	174,650.14	Thousand BOE
Commercial :	61,758.76	Thousand BOE
Other Sector :	13,212.89	Thousand BOE
Non Energy :	30,408.47	Thousand BOE
D. RATIO ELECTRIFICATION 2025	**99.83**	**%**

1) Source: Statistics Indonesia, BPS

Executive Summary

1. Macro Economics

Amid the challenges of a subdued global economic recovery in 2025, Indonesia's economy demonstrated resilience by recording a growth rate of 5.1%. Per capita income rose to reach 83.75 million rupiahs per year, while the middle exchange rate of the rupiah against the US dollar was recorded at Rp16,782 per USD. Economic growth boosted national labour absorption, employing 146.54 million out of Indonesia's 284.44 million population in 2025 and lowering the unemployment rate from the previous year to 5.1%.

2. Primary Energy Supply

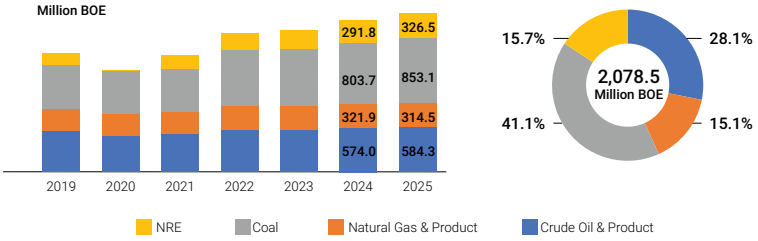


Figure 1: Primary Energy Supply (Million BOE) and Share of Primary Energy Supply (%) in 2025

Driven by national economic growth, Indonesia's total primary energy supply in 2025 increased by 4.4% year-on-year to reach 2,078.5 million BOE. Growth across fossil fuels was mixed, with crude oil and oil products rising by 1.8% and coal increasing by 6.1%, whereas natural gas declined by 2.3%. Meanwhile, New and Renewable Energy (NRE) posted growth of 11.9% over the previous year. Coal continued to dominate the primary energy mix at 41.1%, followed by petroleum at 28.1%, natural gas at 15.1%, and NRE at 15.7% compared to its 19%-23% target for 2030.

3. Final Energy Consumption

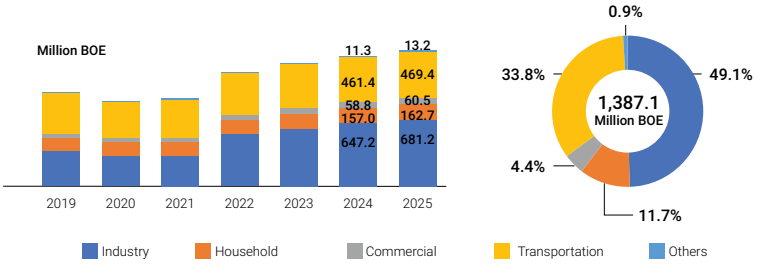


Figure 2: Final Energy Consumption (Million BOE) and Share of Final Energy Consumption (%) in 2025

On the demand side, in 2025, final energy consumption grew by 3.8% to 1,387.1 million BOE, reaching a decade peak in line with the supply-side trend. Industry led overall energy demand with a dominant 49.1% share, followed by transportation (33.8%), households (11.7%), commercial (4.4%), and other sectors (0.9%). This high demand in the industrial sector was primarily driven by coal usage and expanding electricity consumption with coal dominating the sector's energy consumption at 53.0%, followed by electricity at 20.7% and natural gas at 13.0%.

4. Coal

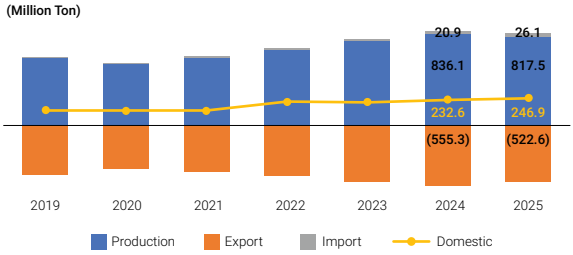


Figure 3: Coal Supply and Demand (Million Ton)

Coal production in 2025 reached 817.5 million tons, reflecting a minor decline of 2.2% year-on-year, while total exports dropped by 5.9% to 522.6 million tons. China remained Indonesia's primary export destination, absorbing 213.2 million tons. Conversely, domestic sales expanded to 246.9 million tons, a 6.1% increase over the previous year. Notably, coal consumption within the power plant recorded an increase of 7.9 million tons compared to the previous year. The average benchmark coal price in 2025 reached 109.66 USD/Ton.

5. Crude Oil and Products

Crude oil production increased in 2025, reaching 606.1 MBOPD or 221.2 million barrels, with the average Indonesian Crude Price (ICP) at 67.38 USD/barrel. Effective this year, reporting methodology has been updated to include Natural Gas Liquids in oil production figures while excluding them from gas reporting. Crude oil exports dropped by 17.2% year-on-year to 22.5 million barrels, whereas crude oil imports rose by 4.4% to 133.4 million barrels.

The crude oil refinery input reached 322.4 million barrels of crude and condensate, an increase of 3.5% compared to the previous year, while producing 364.6 million barrels of refined fuel products including biodiesel for biofuel blending, up 7.4% over the prior year.

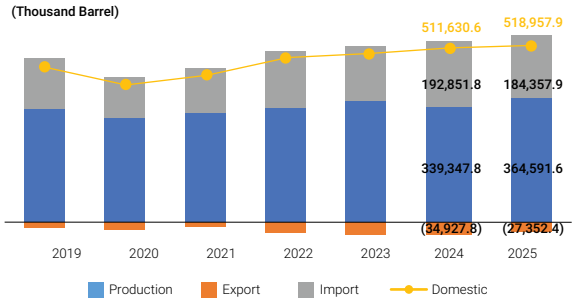


Figure 4: Oil Fuel Supply and Demand (Thousand Barrel)

Driven by strong domestic demand, fuel sales hit a decade peak of 84.1 million KL. Bio Gasoil led sales at 37.1 million KL, followed by RON 90 Gasoline at 28.2 million KL. Meanwhile, exports of refined fuel products reached 27.4 million barrels, and oil fuel imports were 31.0 million KL.

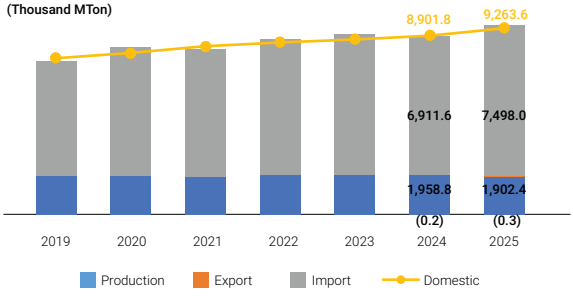


Figure 5: LPG Supply Demand (Thousand MTon)

LPG production fell by 2.9% to 1.9 million tons. To meet a total demand of 9.3 million tons, Indonesia relied on imports of 7.5 million tons, while exports remained minimal at just 260 tons.

6. Natural Gas and Products

Natural gas production reached 6,752.6 MMSCFD or 2.46 TSCF in 2025, down slightly from 6,820.6 MMSCFD (2.49 TSCF) recorded in 2024. Pipeline gas exports grew to 152.4 TBTU, marking an increase from 142.6 TBTU in the previous year. On the LNG front, domestic production expanded by 1.9% to 930.5 TBTU; however, LNG exports dropped by 7.7% year-on-year to 561.0 TBTU, reflecting higher domestic gas absorption.

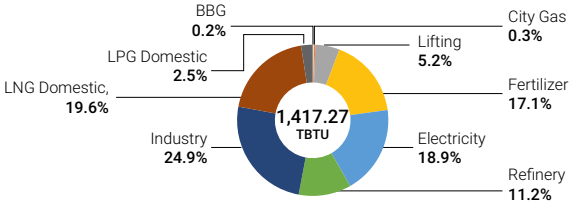


Figure 6: Share of Gas Utilization by Sector (%) in 2025

7. Electricity

Installed capacity of power plants in 2025 reached 107.5 GW, supporting a peak demand load of 65.1 GW. Within this mix, NRE power plants accounted for 16.2 GW, or 15.0% of total installed capacity.

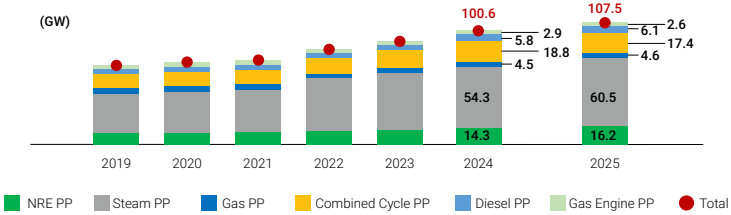


Figure 7: Power Plant Installed Capacity (GW)

Total electricity production for the year stood at 494.4 TWh, with NRE generation contributing 78.4 TWh or 15.9% of the total national production. On the demand side, electricity sales increased by 11.1% year-on-year to 455.0 TWh, up from 409.6 TWh in 2024. Consumption was led by the industrial sector at 232.3 TWh, followed by the household sector at 134.6 TWh. Meanwhile, transmission and distribution losses were maintained at 8.3%.

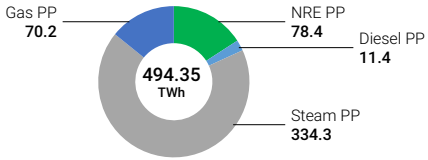


Figure 8: Electricity Production (TWh) in 2025

8. New and Renewable Energy

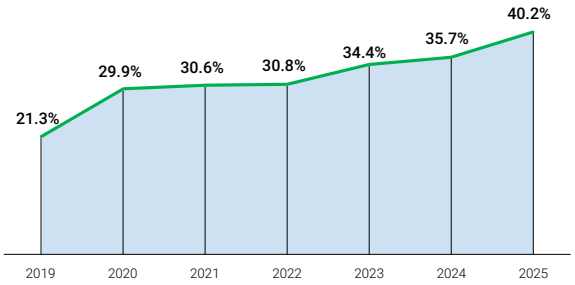
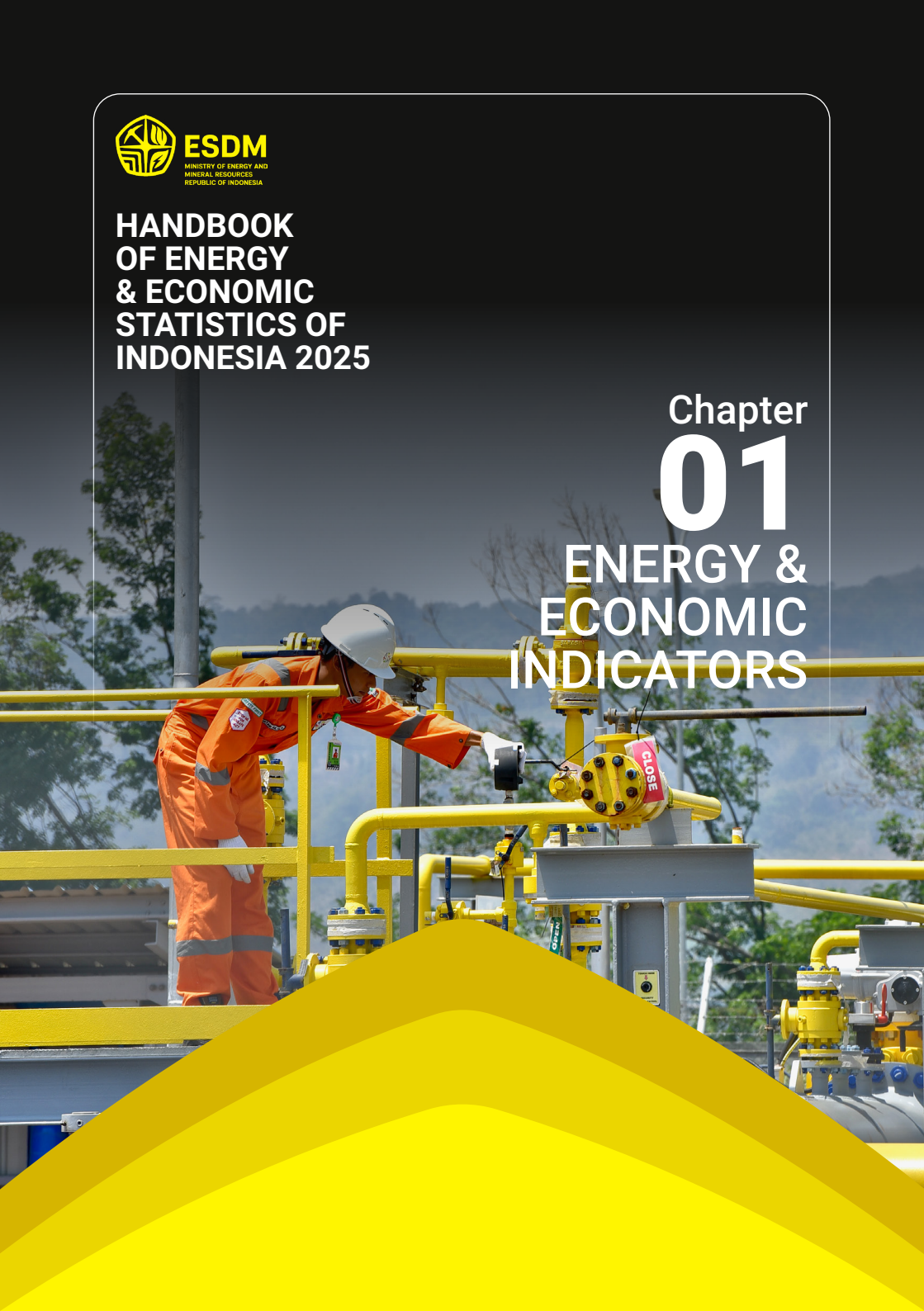


Figure 9: Share of Biodiesel in Biogasoil (%)

In the renewable energy for non-electricity, biodiesel production reached 15.7 million KL in 2025, marking a 12.4% year-on-year expansion, with domestic consumption accounting for 14.9 million KL. Relative to domestic biogasoil sales, the biodiesel blending rate reached 40.2%. In addition, industrial biomass consumption reached 23.81 million tons, while biogas usage stood at 103 million m^3. Furthermore, solar water heaters provided 339 thousand TOE of thermal energy, alongside 6.2 Thermal GWh of direct geothermal heat utilized in industry.

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025



Chapter 01
ENERGY & ECONOMIC INDICATORS

1.1 GDP and Energy Indicator

	Unit	2015	2016	2017	2018
GDP at 2010 Constant Price[1]	Trillion Rupiahs	8,983	9,435	9,913	10,426
GDP Nominal[1]	Trillion Rupiahs	11,526	12,407	13,590	14,839
GDP Nominal per Capita[1]	Thousand Rupiahs	45,120	47,957	51,891	55,992
Population[1]	Thousand	255,462	258,705	261,891	265,015
Number of Households[1]	Thousand	65,582	66,385	67,173	67,945
Primary Energy Supply	Thousand BOE	1,211,461	1,284,528	1,328,761	1,462,199
Primary Energy Supply per Capita	BOE /Capita	4.74	4.97	5.07	5.52
Final Energy Consumption[1)]	Thousand BOE	760,401	754,023	791,145	889,295
Final Energy Consumption per Capita[1)]	BOE /Capita	2.98	2.91	3.02	3.36

Source : 1. Statistics Indonesia, BPS
Note : Primary Energy Supply and Final Energy Consumption which are calculated is commercial energy (excluded traditional biomass)
1) Revised Data

	2019	2020[1)]	2021	2022	2023	2024[1)]	2025
	10,949	10,723	11,120	11,710	12,301	12,921	13,581
	15,833	15,443	16,977	19,588	20,892	22,139	23,821
	59,060	57,154	62,258	71,031	74,964	78,618	83,748
	268,075	270,204	272,683	275,774	278,696	281,604	284,439
	68,701	69,411	70,048	70,842	71,592	72,339	73,068
	1,554,746	1,487,567	1,536,951	1,825,003	1,853,281	1,991,510	2,078,491
	5.80	5.51	5.64	6.62	6.65	7.07	7.31
	963,059	871,007	894,051	1,173,887	1,256,049	1,335,742	1,387,112
	3.59	3.22	3.28	4.26	4.51	4.74	4.88

1.1 GDP and Energy Indicator
(continued)

	Growth (%)				
	2015-2016	2016-2017	2017-2018	2018-2019	
GDP at 2010 Constant Price[1]	5.03	5.07	5.17	5.02	
GDP Nominal[1]	7.64	9.54	9.19	6.70	
GDP Nominal per Capita[1]	6.29	8.20	7.90	5.48	
Population[1]	1.27	1.23	1.19	1.15	
Number of Households[1]	1.22	1.19	1.15	1.11	
Primary Energy Supply	6.03	3.44	10.04	6.33	
Final Energy Consumption[1)]	-0.84	4.92	12.41	8.29	
Final Energy Consumption per Capita[1)]	-2.08	3.65	11.08	7.06	

Source : 1. Statistics Indonesia, BPS
Note : Primary Energy Supply and Final Energy Consumption which are calculated is commercial energy (excluded traditional biomass)
1) Revised Data

Growth (%)						
	2019-2020[1)]	2020-2021[1)]	2021-2022	2022-2023	2023-2024	2024-2025
	-2.06	3.70	5.31	5.05	5.03	5.11
	-2.46	9.93	15.38	6.66	5.97	7.60
	-3.23	8.93	14.09	5.54	4.87	6.53
	0.79	0.92	1.13	1.06	1.04	1.01
	1.03	0.92	1.13	1.06	1.04	1.01
	-4.32	3.32	18.74	1.55	7.46	4.37
	-9.56	2.65	31.30	7.00	6.34	3.85
	-10.27	1.71	29.83	5.88	5.25	2.81

1.2 Macro Economics

Year	GDP at 2010 Constant Prices				
	GDP	Private Consumption	Government Consumption	Fixed Capital Formation	
	Billion Rupiahs	Billion Rupiahs	Billion Rupiahs	Billion Rupiahs	
2015	8,982,517	4,881,631	775,398	2,911,356	
2016	9,434,632	5,126,028	774,282	3,041,587	
2017	9,912,928	5,379,629	790,756	3,228,763	
2018	10,425,852	5,651,456	828,877	3,444,310	
2019	10,949,038	5,936,399	855,931	3,597,664	
2020[1)]	10,722,999	5,780,223	874,146	3,419,182	
2021	11,120,060	5,896,662	911,320	3,549,219	
2022[1)]	11,710,223	6,187,944	871,026	3,686,574	
2023[1)]	12,301,453	6,486,704	897,299	3,825,222	
2024[1)]	12,920,532	6,806,893	957,999	4,001,693	
2025	13,580,525	7,145,802	981,991	4,205,397	

Source : Statistics Indonesia, BPS
Note : 1) Revised Data

	GDP at 2010 Constant Prices			GDP Nominal (Current Prices)	Index GDP Deflator
	Stock Change	Export of Goods and Services	Import of Goods and Services		
	Billion Rupiahs	Billion Rupiahs	Billion Rupiahs	Billion Rupiahs	
	112,848	2,004,467	1,862,939	11,526,333	128
	133,400	1,973,040	1,817,369	12,406,774	132
	126,884	2,146,565	1,964,819	13,589,826	137
	197,370	2,286,395	2,203,270	14,838,756	142
	129,954	2,266,679	2,040,354	15,832,535	145
	51,334	2,083,942	1,686,004	15,443,353	144
	62,709	2,458,849	2,105,117	16,976,751	153
	70,749	2,857,958	2,420,794	19,588,460	167
	127,672	2,907,273	2,390,682	20,892,312	170
	246,652	3,106,474	2,585,472	22,138,991	171
	214,219	3,324,995	2,708,775	23,821,104	175

1.3 Price Index

Year	Wholesale Price Index[1)]			Consumer Price Index[2)]	Coal Price Index for Power Plant[3)]
	Export	Import	General		
2015	130.47	134.19	138.26	122.99	100.88
2016	133.31	128.10	149.16	126.71	93.07
2017	144.69	135.00	156.09	131.28	119.17
2018	162.29	147.35	164.60	135.39	100.00
2019	159.72	150.00	166.22	139.07	99.94
2020	150.75	150.91	103.55	105.68	119.57
2021	174.14	169.58	106.20	107.66	99.55
2022	193.43	186.46	111.23	113.59	112.86
2023	184.66	176.66	115.91	116.56	133.94
2024	195.01	176.25	119.20	106.80	148.87
2025	108.63	111.89	105.07	109.92	139.47

Source : Statistics Indonesia, BPS
Note : 1) Starting November 2013 using 2010 as base year (2010=100)Starting in January 2025, BPS has changed the base year for calculating the Wholesale Price Index (WPI) from the base year (2018=100) to the base year (2023=100).
2) Since January 2014, CPI has been based on a consumption pattern obtained from 2012. Cost of Living Survey in 82 cities (2012=100) Since January 2018, CPI has been calculated from 90 cities based on 2018=100 Since January 2024, the CPI has been calculated by using the base year of 2022 (2022=100), covering 150 cities/ regency which consists of 38 provincial capitals all over Indonesia.
3) This unit is (Rp/ton); Revised data;

1.4 Population and Employment

Year	Population	Labor Force	Household	Unemployment	Unemployment Percentage (toward labor force)
	Thousand People	Thousand People	Thousand Household	Thousand People	(%)
2015	255,462	114,819	65,582	7,561	6.6
2016	258,705	118,412	66,385	7,032	5.9
2017	261,891	121,022	67,173	7,040	5.8
2018	265,015	126,282	67,945	7,073	5.6
2019	268,075	128,755	68,701	7,104	5.5
2020[1)]	270,204	128,454	69,411	9,768	7.6
2021	272,683	131,051	70,048	9,102	6.9
2022	275,774	135,297	70,842	8,426	6.2
2023	278,696	139,852	71,592	7,855	5.6
2024	281,604	144,642	72,339	7,466	5.2
2025	284,439	146,542	73,068	7,462	5.1

Source : Statistics Indonesia, BPS
Note : 1) Revised data for Population and Household

1.5 International Trade

Year	Balance of Trade[1]		Balance of Payments[2]	
	Export	Import	Current Account	
	Million US$		Million US$	
2015	150,366	142,695	-17,519	
2016	145,134	135,653	-16,952	
2017	168,828	156,986	-16,196	
2018	180,013	188,711	-30,633	
2019	167,683	171,276	-30,279	
2020	163,192	141,569	-4,433	
2021[1)]	231,710	196,223	3,511	
2022[1)]	292,187	237,935	13,215	
2023[1)]	259,528	223,108	-2,042	
2024[2)]	266,529	235,200	-8,583	
2025	282,909	241,857	-1,454	

Source : 1. Statistics Indonesia, BPS
2. Bank of Indonesia
3. Derived from World Economic Outlook Database, IMF
Note : 1) Revised data for Balance of Trade and US$ Deflator
2) Revised data

Balance of Payments[2]		Exchange Rate Rupiah to US $[2]	US $ Deflator[3]
Capital and Financial Account	Overall Balance		
Million US$			
16,860	-659	13,795	1.10
29,346	12,394	13,436	1.11
28,732	12,536	13,548	1.08
25,219	-5,414	14,542	1.10
36,603	6,324	13,901	1.12
7,921	3,488	14,105	1.05
12,572	16,083	14,269	1.10
-8,681	4,535	15,731	1.18
9,874	7,832	15,416	1.22
17,981	9,397	16,162	1.25
-4,193	-5,647	16,782	1.29

1.6 Share of Supply of Primary Energy

By Type (excluded Traditional Biomass)

Type of Energy	2015	2016	2017	2018
Oil	42.06	41.43	41.63	38.79
Coal	30.10	29.61	30.67	33.06
Gas	22.93	22.28	20.99	19.51
New Renewable Energy	4.92	6.69	6.71	8.64
Hydropower	2.86	3.69	3.58	2.75
Geothermal	1.35	1.37	1.52	1.78
Solar	n.a	n.a	n.a	0.02
Wind	n.a	n.a	n.a	0.03
Other Renewables[1)]	n.a	n.a	n.a	2.09
Biofuel	0.69	1.61	1.58	1.94
Biogas	0.01	0.01	0.01	0.01
Industrial Biomass	0.01	0.01	0.01	0.02
Solar Water Heater	n.a	n.a	n.a	n.a
Direct Use of Geothermal	n.a	n.a	n.a	n.a

Note : Oil including crude oil, petroleum product, and LPG
Coal including coal and briquette
Gas including natural gas and LNG
Solar PP including solar photovoltaic (PV), Solar-powered street lighting and solar-powered energy saving lamp
Other renewable including biomass PP, biogas PP, waste PP, and hybrid PP
Biofuel : liquid biofuel (biodiesel)
1) Since 2025, solar-powered street lighting has been reclassified under the other renewables category.

(%)

	2019	2020	2021	2022	2023	2024	2025
	35.05	31.66	32.10	30.39	29.91	28.82	28.11
	37.39	37.24	36.36	40.86	39.69	40.36	41.04
	18.31	20.16	19.71	16.89	17.11	16.16	15.13
	9.25	10.94	11.83	11.86	13.29	14.65	15.71
	2.53	3.04	2.99	2.78	2.46	2.55	2.75
	1.68	1.94	1.92	1.70	1.70	1.56	1.59
	0.03	0.05	0.05	0.10	0.17	0.30	0.35
	0.08	0.08	0.07	0.05	0.06	0.06	0.05
	1.92	2.04	2.43	2.85	3.12	2.83	3.32
	2.95	3.73	4.27	4.08	4.54	4.53	4.89
	0.01	0.01	0.01	0.01	0.04	0.03	0.03
	0.04	0.04	0.09	0.25	1.10	2.67	2.63
	n.a	n.a	n.a	0.05	0.10	0.12	0.12
	n.a	n.a	n.a	0.00	0.00	0.00	0.00

1.7 Comparison of Primary Energy Intensity in Some Countries

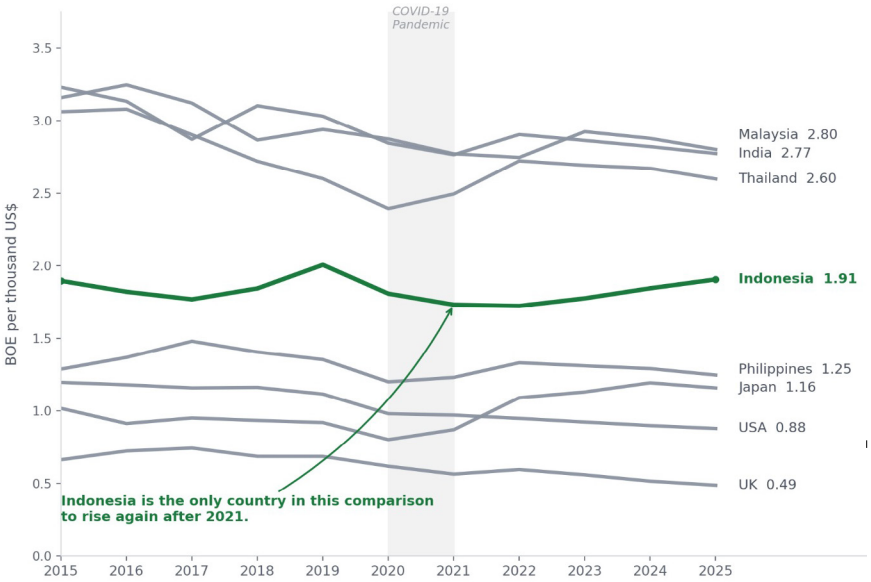


Figure 10: Comparison of Primary Energy Intensity in Some Countries (BOE/thousand US$)

Sources : 1. BP Statistical Review of World Energy 2023
2. World Economic Outlook Database, IMF

Note : 1) Processed Data
2) GDP Primary Energy Consumption using US$ fix rate in year 2000
3) Until 2021 based on the BP Statistical Review of World Energy 2023, since 2022 using interpolation for primary energy comsumption

1.8 Intensity of Final Energy Consumption per Capita

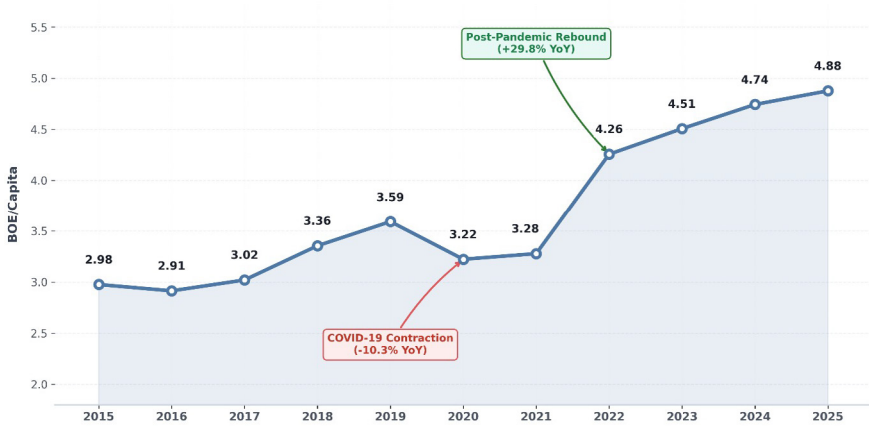


Figure 11: Intensity of Final Energy Consumption per Capita (BOE/Capita)

Note : Revised data for 2020-2024

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Chapter 02
ENERGY BALANCE TABLE

Indonesia Energy Balance Table 2025

	Hydro Power	Geothermal	Solar PP & Solar PV	Wind PP	Other Renew-ables	Industrial Biomass	Solar Water Heater	Direct Use of Geo-thermal	Traditional Biomass	
1 Primary Energy Supply	**57,094**	**32,953**	**7,177**	**937**	**69,039**	**54,715**	**2,421**	**4**	**13,195**	
a. Production	57,094	32,953	7,177	937	69,039	54,715	2,421	4	13,195	
b. Import	0	0	0	0	0	0	0	0	0	
c. Export	0	0	0	0	0	0	0	0	0	
d. International Marine Bunker	0	0	0	0	0	0	0	0	0	
e. Stock Change	0	0	0	0	0	0	0	0	0	
2 Energy Transformation	**-57,094**	**-32,953**	**-7,177**	**-937**	**-69,039**	**0**	**0**	**0**	**0**	
a. Refinery	0	0	0	0	0	0	0	0	0	
b. Gas Processing	0	0	0	0	0	0	0	0	0	
c. LNG Regasification	0	0	0	0	0	0	0	0	0	
d. Coal Processing Plant	0	0	0	0	0	0	0	0	0	
e. Biofuel Blending	0	0	0	0	0	0	0	0	0	
f. Power Plant	-57,094	-32,953	-7,177	-937	-69,039	0	0	0	0	
- State Own Utility (PLN)	-25,828	-8,054	-66	0	-14,788	0	0	0	0	
- IPP, Captive Power, and PPU (Non-PLN)	-19,586	-24,899	-2,358	-937	-1,633	0	0	0	0	
- IUPTLS + PPU	-11,680	0	-4,753	0	-52,618	0	0	0	0	

(Thousand BOE)

	Coal	Briquette	Natural Gas	Crude Oil	Oil Fuel	Biofuel	Biogas	LPG	Electricity	LNG	Total
853,069	**0**	**415,287**	**328,829**	**192,767**	**101,550**	**654**	**62,752**	**0**	**-100,758**	**2,091,686**
2,824,716	0	442,661	221,229	0	101,550	654	0	0	0	3,828,346
90,121	0	0	133,392	181,188	0	0	63,918	0	0	468,619
-1,805,655	0	-27,374	-22,518	-8,630	0	0	-2	0	-100,758	-1,964,936
0	0	0	0	-23,891	0	0	0	0	0	-23,891
-256,113	0	0	-3,274	44,099	0	0	-1,164	0	0	-216,452
-488,594	**0**	**-250,980**	**-322,381**	**323,432**	**-96,922**	**0**	**16,217**	**302,862**	**79,406**	**-604,161**
0	0	-28,586	-322,381	263,041	0	0	16,217	0	0	-71,708
0	0	-168,707	0	0	0	0	0	0	167,116	-1,591
0	0	49,937	0	0	0	0	0	0	-49,937	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	96,922	-96,922	0	0	0	0	0
-488,594	0	-103,624	0	-36,532	0	0	0	302,862	-37,773	-530,861
-270,926	0	-65,332	0	-21,946	0	0	0	118,542	-37,773	-326,171
-170,977	0	-18,540	0	-4,427	0	0	0	133,850	0	-109,507
-46,691	0	-19,752	0	-10,159	0	0	0	50,469	0	-95,184

Indonesia Energy Balance Table 2025

(continued)

		Hydro Power	Geothermal	Solar PP & Solar PV	Wind PP	Other Renew-ables	Industrial Biomass	Solar Water Heater	Direct Use of Geo-thermal	Traditional Biomass	
3	**Own Use and Losses**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
	a. During Transformation	0	0	0	0	0	0	0	0	0	
	b. Energy Use/ Own Use	0	0	0	0	0	0	0	0	0	
	c. Transmission & Distribution	0	0	0	0	0	0	0	0	0	
4	**Final Energy Supply**	**0**	**0**	**0**	**0**	**0**	**54,715**	**2,421**	**4**	**13,195**	
5	**Statistic Discrepancy**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
6	**Final Consumption**	**0**	**0**	**0**	**0**	**0**	**54,715**	**2,421**	**4**	**13,195**	
7	**Final Energy Consumption**	**0**	**0**	**0**	**0**	**0**	**54,715**	**2,421**	**4**	**13,195**	
	a. Industry	0	0	0	0	0	54,715	0	4	0	
	b. Transportation	0	0	0	0	0	0	0	0	0	
	c. Household	0	0	0	0	0	0	0	0	11,915	
	d. Commercial	0	0	0	0	0	0	2,421	0	1,281	
	e. Other Sector	0	0	0	0	0	0	0	0	0	
8	**Non Energy Use**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

Note : Biofuel consists of Biodiesel while Biosolar is included in the Fuel category
Other Renewables PP is including Biomass PP, Biogas PP, Waste PP, Hybrid PP, and Solar-Powered Public Street Lighting

(Thousand BOE)

	Coal	Briquette	Natural Gas	Crude Oil	Oil Fuel	Biofuel	Biogas	LPG	Electricity	LNG	Total
0	**0**	**0**	**-39,958**	**-6,448**	**-976**	**0**	**0**	**0**	**-24,741**	**21,352**	**-50,770**
0	0	0	0	-6,448	0	0	0	0	-7,439	0	-13,886
0	0	0	-39,958	0	0	0	0	0	0	0	-39,958
0	0	0	0	0	-976	0	0	0	-17,303	21,352	3,073
364,476	**0**	**124,349**	**0**	**515,223**	**4,628**	**654**	**78,969**	**278,120**	**0**	**1,436,754**
0	**0**	**2,206**	**0**	**0**	**4,628**	**0**	**0**	**-795**	**0**	**6,039**
364,476	**0**	**122,144**	**0**	**515,223**	**0**	**654**	**78,969**	**278,916**	**0**	**1,430,716**
364,476	**0**	**91,735**	**0**	**515,223**	**0**	**654**	**78,969**	**278,916**	**0**	**1,400,307**
364,476	0	89,687	0	28,825	0	0	1,144	142,386	0	681,237
0	0	560	0	468,547	0	0	0	343	0	469,449
0	0	845	0	3,014	0	654	75,727	82,495	0	174,650
0	0	643	0	1,625	0	0	2,097	53,692	0	61,759
0	0	0	0	13,213	0	0	0	0	0	13,213
0	**0**	**30,408**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30,408**

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Chapter 03
ENERGY SUPPLY AND DEMAND

3.1 Primary Energy Supply by Sources

Year	Coal	Crude Oil & Product	Natural Gas & Product	Hydro Power	Geothermal	Solar PP & Solar PV	Wind	
	BOE							
2015	364,619	509,485	277,793	34,604	16,338	n.a	n.a	
2016	380,310	532,134	286,141	47,450	17,538	n.a	n.a	
2017	407,526	553,121	278,964	47,600	20,260	n.a	n.a	
2018	483,336	567,190	285,286	40,205	26,041	365	466	
2019	581,356	545,008	284,645	39,329	26,193	474	1,186	
2020	553,924	471,002	299,927	45,206	28,909	717	1,164	
2021	558,782	493,428	302,911	45,948	29,533	802	1,071	
2022	745,721	554,615	308,152	50,781	30,979	1,756	873	
2023	735,543	554,391	317,047	45,677	31,459	3,076	1,180	
2024[3)]	803,738	574,020	321,926	50,831	31,139	6,039	1,146	
2025	853,069	584,347	314,529	57,094	32,953	7,177	937	

Note : Changes in Biofuel Assumptions as Biodiesel (pure)
Since 2025, solar-powered street lighting has been reclassified under the other renewables category.
1) Other Renewable is including Biomass PP, Biogas PP, Waste PP, & Hybrid PP
2) Estimation data
3) Revised data
n.a : not available data

(Thousand BOE)

	Other Renewables[1)]	Traditional Biomass[2)]	Biofuel	Biogas	Industrial Biomass	Solar Water Heater	Direct Use of Geothermal	Total
				BOE				
	n.a	40,097	8,381	120	120	n.a	n.a	1,251,558
	n.a	36,085	20,625	145	185	n.a	n.a	1,320,613
	n.a	29,333	20,947	157	186	n.a	n.a	1,358,094
	30,493	27,998	28,312	163	342	n.a	n.a	1,490,197
	29,906	24,428	45,927	167	555	n.a	n.a	1,579,175
	30,387	21,992	55,516	177	637	n.a	n.a	1,509,559
	37,421	21,050	65,567	180	1,309	n.a	n.a	1,558,000
	52,086	18,653	74,371	206	4,524	936	4	1,843,656
	57,739	16,649	84,096	702	20,452	1,915	4	1,869,930
	56,318	15,201	90,181	600	53,147	2,421	4	2,006,712
	69,039	13,195	101,550	654	54,715	2,421	4	2,091,686

3.2 Final Energy Consumption by Sector

3.2.1 Energy Consumption (Included Traditional Biomass)

Sector	2015	2016	2017	2018	2019
Industrial	244,513	237,807	248,751	308,101	363,535
Households	149,138	149,136	149,202	151,965	153,780
Commercial	39,287	41,369	42,378	43,602	45,545
Transportation	345,573	341,274	364,147	400,042	413,515
Other	21,705	19,865	17,000	13,578	11,113
Final Energy Consumption	800,216	789,750	820,478	917,288	987,488
Non Energy Utilization	33,440	32,018	31,665	33,343	34,080

Note : Final Energy Consumptions is exclude Non Energy Utilization
1) Revised Data

(Thousand BOE)

	2020[1)]	2021[1)]	2022[1)]	2023[1)]	2024[1)]	2025
	317,800	309,530	537,280	592,177	647,240	681,237
	158,319	162,188	162,513	167,610	170,887	174,650
	42,242	43,985	49,721	55,494	60,097	61,759
	364,394	388,609	432,589	448,537	461,422	469,449
	10,245	10,788	10,940	10,619	11,298	13,213
	892,999	915,100	1,193,042	1,274,437	1,350,944	1,400,307
	31,702	31,294	31,591	31,568	31,761	30,408

3.2 Final Energy Consumption by Sector

3.2.2 Energy Consumption (Excluded Traditional Biomass)

Sector	2015	2016	2017	2018	2019
Industrial	244,513	237,807	248,751	308,101	363,535
Households	110,670	115,048	120,202	125,299	130,672
Commercial	37,941	40,029	41,045	42,276	44,225
Transportation	345,573	341,274	364,147	400,042	413,515
Other	21,705	19,865	17,000	13,578	11,113
Final Energy Consumption	760,401	754,023	791,145	889,295	963,059
Non Energy Utilization	33,440	32,018	31,665	33,343	34,080

Note : Final Energy Consumptions is exclude Non Energy Utilization
1) Revised Data

(Thousand BOE)

	2020[1)]	2021[1)]	2022[1)]	2023[1)]	2024[1)]	2025
	317,800	309,530	537,280	592,177	647,240	681,237
	137,640	142,445	144,658	150,516	156,973	162,735
	40,929	42,679	48,421	54,201	58,810	60,478
	364,394	388,609	432,589	448,537	461,422	469,449
	10,245	10,788	10,940	10,619	11,298	13,213
	871,007	894,051	1,173,887	1,256,049	1,335,742	1,387,112
	31,702	31,294	31,591	31,568	31,761	30,408

3.3 Final Energy Consumption by Type

Year	Traditional Biomass	Industrial Biomass	Solar Water Heater	Direct Use of Geothermal	Coal [1)]	Natural Gas	Oil Fuel	
2015	39,814	120	n.a	n.a	70,228	96,012	323,331	
2016	35,727	185	n.a	n.a	63,504	93,192	329,094	
2017	29,333	186	n.a	n.a	58,800	108,479	331,454	
2018	27,998	342	n.a	n.a	100,506	118,720	320,730	
2019	24,428	555	n.a	n.a	167,412	114,112	261,971	
2020	21,992	637	n.a	n.a	113,416	106,970	222,339	
2021	21,050	1,309	n.a	n.a	87,820	110,932	235,941	
2022	18,653	4,524	936	3.65	299,191	107,321	262,987	
2023	16,649	20,452	1,915	3.65	316,754	123,165	263,690	
2024	15,201	53,147	2,421	3.65	342,546	102,130	272,370	
2025	13,195	54,715	2,421	3.65	364,476	91,735	277,967	

Note : Final Energy Consumptions is exclude Non Energy Utilization
1) There is an increase of smelter commissioning in 2018 and optimum operation of smelter in 2019
2) Bio Gasoil consumption is blending product of biodiesel
3) Revised data for 2020-2024

(Thousand BOE)

Biogasoil [2]			Biogas	Briquette	LPG	Electricity[3]	Total
Gasoil	Biodiesel	Blending Product					
85,895	5,939	91,834	120	50.48	54,361	124,344	800,216
59,244	19,516	78,760	145	106.91	56,626	132,411	789,750
77,200	16,682	93,882	157	106.91	61,299	136,781	820,478
105,949	24,327	130,276	163	35.64	64,471	154,052	917,293
150,395	41,494	191,889	167	28.40	66,304	160,621	987,488
124,806	54,494	179,300	177	188.26	68,400	179,580	892,999
133,767	60,292	194,059	180	0.00	71,253	192,557	915,100
149,134	67,784	216,918	206	0.00	72,988	208,814	1,192,540
148,746	79,724	228,470	702	3.49	74,254	226,640	1,272,698
150,199	85,354	235,553	600	0.00	75,884	251,088	1,350,944
140,334	96,922	237,256	654	0.00	78,969	278,916	1,400,307

3.4 Share of Final Energy Consumption by sector

(%)

Year	Industry	Household	Commercial	Transportation	Other
2015	32.16	14.55	4.99	45.45	2.85
2016	31.54	15.26	5.31	45.26	2.63
2017	31.44	15.19	5.19	46.03	2.15
2018	34.65	14.09	4.75	44.98	1.53
2019	37.75	13.57	4.59	42.94	1.15
2020	36.49	15.80	4.70	41.84	1.18
2021	34.62	15.93	4.77	43.47	1.21
2022	45.77	12.32	4.12	36.85	0.93
2023	47.15	11.98	4.32	35.71	0.85
2024	48.46	11.75	4.40	34.54	0.85
2025	49.11	11.73	4.36	33.84	0.95

Note : Commercial Energy (excluded traditional biomass)

3.5 Share of Final Energy Consumption by Type

(%)

Year	Industrial Biomass	Solar Water Heater	Direct Use of Geothermal	Coal[1)]	Natural Gas	Oil Fuel
2015	0.02	n.a	n.a	9.24	12.63	42.52
2016	0.02	n.a	n.a	8.44	12.36	43.65
2017	0.02	n.a	n.a	7.45	13.71	41.90
2018	0.04	n.a	n.a	11.31	13.35	36.07
2019	0.06	n.a	n.a	17.39	11.85	27.20
2020	0.07	n.a	n.a	13.04	12.28	25.53
2021	0.15	n.a	n.a	9.82	12.41	26.39
2022	0.39	0.08	0.00	25.49	9.14	22.40
2023	1.63	0.15	0.00	25.22	9.81	20.99
2024	3.98	0.18	0.00	25.64	7.65	20.39
2025	3.94	0.17	0.00	26.28	6.61	20.04

Note : Exclude traditional biomass
1) Coal is including Briquette
2) BioGasoil consumption is blending product of biodiesel; Gasoil is processed data; source of biodiesel is from Directorate General of New and Renewable Energy and Energy Conservation
n.a : not available data

3.5 Share of Final Energy Consumption by Type
(Continued)

(%)

Year	Bio Gasoil [2]			Biogas	LPG	Electricity
	Gasoil	Biodiesel	Blending Product			
2015	11.30	0.78	12.08	0.02	7.15	16.35
2016	7.86	2.59	10.45	0.02	7.51	17.56
2017	9.76	2.11	11.87	0.02	7.75	17.29
2018	11.91	2.74	14.65	0.02	7.25	17.32
2019	15.62	4.31	19.92	0.02	6.88	16.68
2020	14.33	6.26	20.59	0.02	7.85	20.62
2021	14.96	6.74	21.71	0.02	7.97	21.54
2022	12.70	5.77	18.48	0.02	6.22	17.79
2023	11.84	6.35	18.19	0.06	5.91	18.04
2024	11.24	6.39	17.63	0.04	5.68	18.80
2025	10.12	6.99	17.10	0.05	5.69	20.11

Note : Exclude traditional biomass
1) Coal is including Briquette
2) BioGasoil consumption is blending product of biodiesel; Gasoil is processed data; source of biodiesel is from Directorate General of New and Renewable Energy and Energy Conservation
n.a : not available data

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Chapter 04
ENERGY PRICES

4.1 Crude Oil Price

Crude Oil Type	2015	2016	2017	2018	2019	
SLC	49.39	40.98	51.98	68.20	63.10	
Arjuna	48.54	39.35	51.20	67.65	63.42	
Attaka	51.20	41.82	52.86	69.78	65.14	
Cinta	48.22	40.00	50.59	66.65	61.79	
Duri	47.60	37.63	49.47	65.76	64.75	
Widuri	48.44	40.13	50.76	66.82	61.99	
Belida	52.62	43.15	53.33	70.25	64.87	
Senipah Condensate	52.92	43.44	53.31	69.57	59.89	
Average[1)]	49.21	40.13	51.19	67.47	62.37	

Source : Oil and Gas Statistics, Directorate General of Oil and Gas
Note : 1) Arithmetic Average Indonesian Crude Oil Price from various type of crude

(US$/Barrel)

	2020	2021	2022	2023	2024	2025
	41.98	68.94	99.18	81.16	79.81	68.88
	39.24	68.15	98.38	79.05	81.55	69.60
	40.07	69.45	99.27	80.05	78.90	67.99
	40.27	66.81	97.47	79.45	79.33	68.65
	48.69	73.84	107.15	86.47	84.23	69.40
	40.82	67.75	98.02	80.00	83.88	70.28
	39.89	69.64	99.42	80.09	78.96	68.00
	39.35	69.90	91.70	71.44	71.18	62.45
	40.39	68.47	97.03	78.43	78.12	67.38

4.2 International Gas Price

(US$/MMBTU)

Year	LNG	Natural Gas			
	CIF on Japan[1)]	Average German Import Price	UK (Heren NBP Index)	USA (Henry Hub)	Canada (Alberta)
2015	9.96	6.61	6.52	2.61	2.01
2016	6.73	4.93	4.65	2.81	1.55
2017	7.87	5.62	5.78	2.96	1.60
2018	9.78	6.62	7.97	3.12	1.12
2019	9.70	5.25	4.46	2.51	1.27
2020[2)]	7.64	3.18	3.17	1.99	1.58
2021	9.90	15.91	15.45	3.84	3.50
2022	16.86	37.52	24.55	6.38	5.81
2023	13.24	12.88	12.30	2.53	3.02
2024[3)]	11.69	10.89	10.69	2.25	1.60
2025	11.12	11.91	11.65	3.53	1.82

Source : 1. Statistical Review of World Energy 2026, Energy Institute
2. Average German Import Price based on https://ycharts.com/indicators/germny_natural_gas_border_price
3. Canada (Alberta) based on https://energyrates.ca/why-are-natural-gas-rates-so-high-in-alberta/

Note : 1) Revised data from 2020 to 2024
2) Revised data for Average German Import Price
3) Revised data for UK Heren NBP Index and USA Henry Hub

4.3 Average Price of LNG and Coal FOB Export

Year	LNG	Coal
	US$/MMBTU	US$/Ton
2015	7.26	60.13
2016	5.91	61.84
2017	4.32	85.92
2018	8.23	98.96
2019	7.89	77.89
2020	5.31	58.17
2021	7.76	121.47
2022	11.17	276.58
2023	10.48	201.15
2024	10.37	121.48
2025	9.60	109.66

Source : 1. Bank of Indonesia
2. Directorate General of Mineral and Coal, using Arithmatic average of Indonesian Coal Price Reference

4.4 Energy Price per Energy Unit[1)]

Year	Gasoline[2)] (RON 90)		Avtur		Kerosene		
	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	
2015	1,238	90	1,562	113	422	31	
2016	1,129	84	1,227	91	422	31	
2017	1,110	82	1,418	105	422	31	
2018[3)]	1,110	76	1,713	118	422	29	
2019	1,110	80	1,664	120	422	30	
2020	1,110	79	1,553	110	422	30	
2021	1,110	78	2,136	150	422	30	
2022	1,716	109	3,212	204	422	27	
2023	1,716	111	2,856	185	422	27	
2024[4)]	1,716	106	2,619	162	422	26	
2025	1,716	102	2,525	150	422	25	

Note : 1) At the official selling point
2) Gasoline RON 88 price before 2022
3) Revised data
4) Revised data for Coal

	Gasoil CN 48		LPG (3 Kg)		LPG (12 Kg)		LPG (50 Kg)	
	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE
	1,052	76	499	36	1,440	104	1,428	104
	815	61	499	37	1,361	101	1,247	93
	794	59	499	37	1,410	104	1,461	108
	794	55	499	34	1,457	100	1,612	111
	794	57	499	36	1,457	105	1,330	96
	794	56	499	35	1,457	103	1,333	95
	794	56	499	35	1,867	131	2,238	157
	879	56	499	32	2,361	150	2,289	145
	1,048	68	499	32	2,361	153	2,261	147
	1,048	65	499	31	2,258	140	2,261	140
	1,048	62	499	30	2,156	128	2,261	135

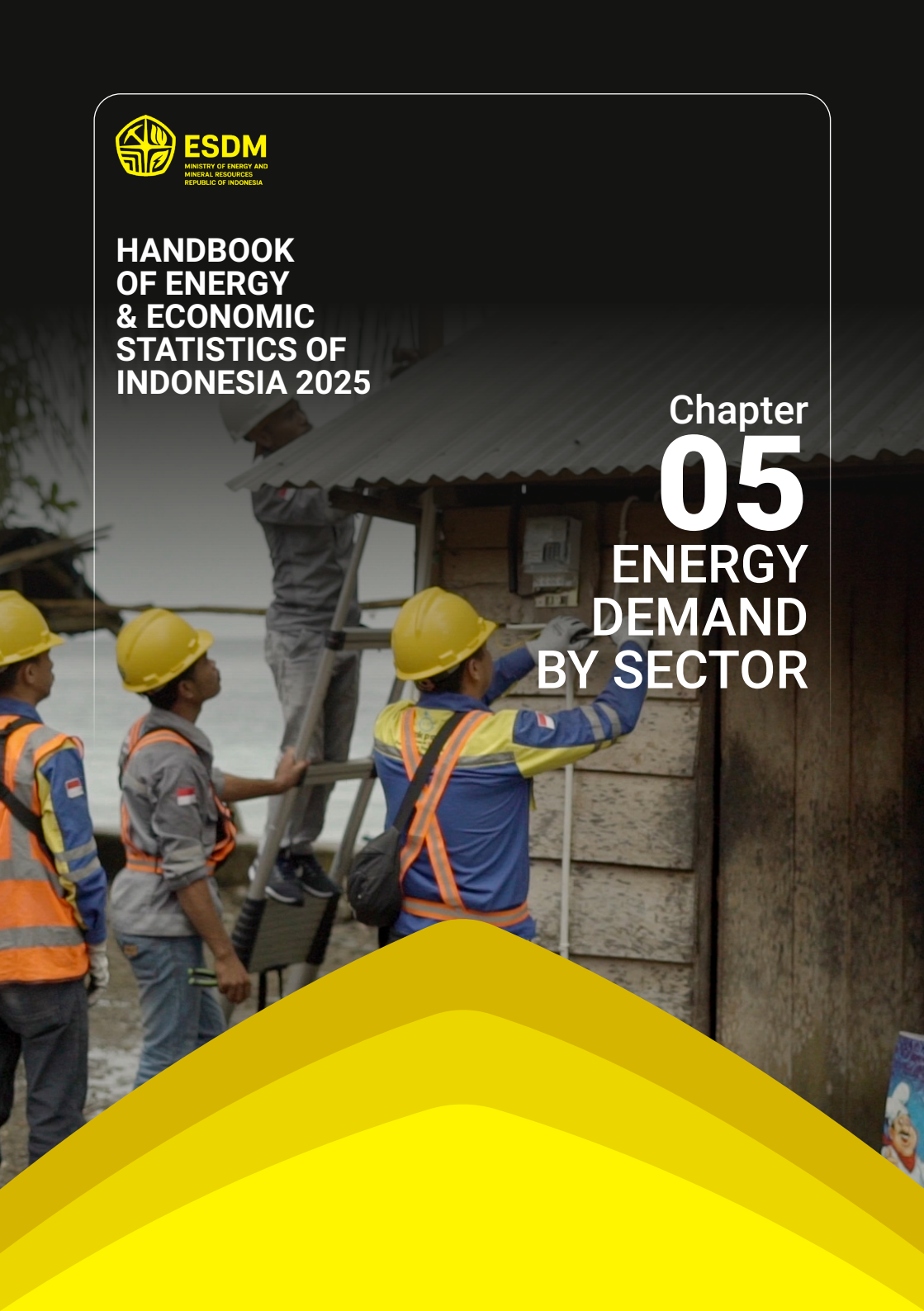
4.4 Energy Price per Energy Unit[1)]
(continued)

Year	Coal		Electricity (Average) Household		Industry		Commercial	
	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE	Thousand Rp/BOE	US$/BOE
2015	155	11	1.365	99	1.864	135	2.095	152
2016	143	11	1.376	102	1.716	128	1.959	146
2017	183	14	1.723	127	1.776	131	2.032	150
2018[3)]	179	12	1.798	124	1.770	122	2.029	140
2019	179	13	1.793	129	1.796	129	2.053	148
2020	214	15	1.618	115	1.780	126	2.022	143
2021	179	13	1.670	117	1.772	124	2.014	141
2022	202	13	1.841	117	1.763	112	2.048	130
2023	240	16	1.886	122	1.762	114	2.057	133
2024[4)]	267	17	1.899	118	1.736	107	2.020	125
2025	250	15	1.736	103	1.754	104	2.026	121

Note : 1) At the official selling point
2) Gasoline RON 88 price before 2022
3) Revised data
4) Revised data for Coal

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025



Chapter 05
ENERGY DEMAND BY SECTOR

5.1.1 Energy Consumption in Industrial Sector

(in Original Unit)

Year	Industrial Biomass	Direct Geothermal	Coal	Briquette	Gas[3]	Oil Fuel[2]				
						Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98+100	
	Thousand Ton	Thermal GWh	Thousand Ton		MMSCF	Kilo Liter				
2015	47	n.a	16,721	14	524,100	43,950	n.a.	n.a.	n.a.	
2016	72	n.a	15,120	30	509,570	34,211	n.a.	n.a.	n.a.	
2017	73	n.a	14,000	30	593,359	35,067	n.a.	n.a.	n.a.	
2018	133	n.a	23,930	10	649,539	34,265	n.a.	n.a.	n.a.	
2019	217	n.a	39,860	8	562,552	32,328	n.a.	n.a.	n.a.	
2020	258	n.a	27,004	53	521,026	30,032	n.a.	n.a.	n.a.	
2021	793	n.a	20,910	0	526,677	29,911	n.a.	n.a.	n.a.	
2022	2,351	6	86,587	0	586,772	28,798	n.a.	n.a.	n.a.	
2023	8,971	6	91,669	1	675,742	28,747	n.a.	n.a.	n.a.	
2024[4]	20,737	6	99,133	1	558,553	29,526	n.a.	n.a.	n.a.	
2025	23,811	6	105,480	0	499,371	6,028	22,719	8,002	5,535	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity
3) Revised data for 2019 to 2024
4) Revised data

Oil Fuel[2]							LPG	Electricity
Gasoil CN 48	Bio Gasoil[1]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total Oil Fuel		
Kilo Liter							Thousand Ton	GWh
4,570,091	0	n.a.	n.a.	44,423	1,395,820	6,054,284	91	64,079
4,262,333	0	n.a.	n.a.	35,294	1,696,881	6,028,718	96	68,145
3,839,186	0	n.a.	n.a.	82,275	1,761,804	5,718,331	104	72,238
2,854,407	0	n.a.	n.a.	59,633	1,892,499	4,840,804	110	93,537
169,475	2,053,730	n.a.	n.a.	47,464	1,419,742	3,722,739	113	94,281
315,726	1,918,990	n.a.	n.a.	35,415	1,101,693	3,401,856	116	121,527
571,220	2,076,953	n.a.	n.a.	45,559	1,166,224	3,889,866	121	137,311
229,938	2,321,611	n.a.	n.a.	53,407	2,119,067	4,752,821	124	155,270
204,932	2,445,246	n.a.	n.a.	41,149	1,554,190	4,274,265	126	169,773
297,691	2,521,052	n.a.	n.a.	39,116	1,664,392	4,551,777	129	195,469
408,481	2,700,278	139,275	52,053	39,791	992,237	4,374,400	134	232,277

5.1.2 Energy Consumption in Industrial Sector

(in Energy Unit)

Year	Industrial Biomass	Direct Use of Geothermal	Coal	Briquette	Gas[3]	Oil Fuel[2]				
						Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98 +100	
2015	120	n.a	70,228	50	94,128	261	n.a.	n.a.	n.a.	
2016	185	n.a	63,504	107	91,519	203	n.a.	n.a.	n.a.	
2017	186	n.a	58,800	107	106,567	208	n.a.	n.a.	n.a.	
2018	342	n.a	100,506	36	116,657	203	n.a.	n.a.	n.a.	
2019	555	n.a	167,412	28	101,034	192	n.a.	n.a.	n.a.	
2020	662	n.a	113,416	188	93,576	178	n.a.	n.a.	n.a.	
2021	2,033	n.a	87,820	0	94,591	177	n.a.	n.a.	n.a.	
2022	6,025	4	299,191	0	105,384	171	n.a.	n.a.	n.a.	
2023	22,991	4	316,754	3	121,363	170	n.a.	n.a.	n.a.	
2024[4]	53,147	4	342,546	2	100,316	175	n.a.	n.a.	n.a.	
2025	61,025	4	364,476	0	89,687	36	132	47	32	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity
3) Revised data for 2019 to 2024
4) Revised data

(Thousand BOE)

Oil Fuel[2]							LPG	Electricity	Total
Gasoil CN 48	Bio Gasoil[1]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total Oil Fuel			
29,647	0	n.a.	n.a.	294	9,717	39,917	779	39,281	244,504
27,650	0	n.a.	n.a.	233	11,812	39,898	821	41,773	237,807
24,905	0	n.a.	n.a.	544	12,264	37,921	890	44,282	248,753
18,517	0	n.a.	n.a.	394	13,174	32,288	934	57,338	308,101
1,099	13,323	n.a.	n.a.	314	9,883	24,811	961	57,794	352,595
2,048	12,449	n.a.	n.a.	234	7,669	22,578	991	74,496	305,908
3,706	13,473	n.a.	n.a.	301	8,118	25,776	1,033	84,171	295,424
1,492	15,061	n.a.	n.a.	353	14,751	31,827	1,058	95,181	538,669
1,329	15,863	n.a.	n.a.	272	10,819	28,453	1,076	104,071	594,716
1,931	16,354	n.a.	n.a.	258	11,586	30,305	1,100	119,822	647,242
2,650	17,517	903	338	263	6,907	28,825	1,144	142,386	687,547

5.1.3 Share of Energy Consumption in Industrial Sector

Year	Industrial Biomass	Direct Use of Geothermal	Coal	Briquette	Gas	Oil Fuel[2)]				
						Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98+100	
2015	0.05	n.a	28.72	0.02	38.50	0.11	n.a.	n.a.	n.a.	
2016	0.08	n.a	26.70	0.04	38.48	0.09	n.a.	n.a.	n.a.	
2017	0.07	n.a	23.64	0.04	42.84	0.08	n.a.	n.a.	n.a.	
2018	0.11	n.a	32.62	0.01	37.86	0.07	n.a.	n.a.	n.a.	
2019	0.16	n.a	47.48	0.01	28.65	0.05	n.a.	n.a.	n.a.	
2020	0.22	n.a	37.08	0.06	30.59	0.06	n.a.	n.a.	n.a.	
2021	0.69	n.a	29.73	0.00	32.02	0.06	n.a.	n.a.	n.a.	
2022	1.12	0.00	55.54	0.00	19.56	0.03	n.a.	n.a.	n.a.	
2023	3.87	0.00	53.26	0.00	20.41	0.03	n.a.	n.a.	n.a.	
2024	8.21	0.00	52.92	0.00	15.50	0.03	n.a.	n.a.	n.a.	
2025	8.88	0.00	53.01	0.00	13.04	0.01	0.02	0.01	0.00	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity

(%)

Oil Fuel[2]							LPG	Electricity
Gasoil CN 48	Bio Gasoil[1]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total Fuel		
12.13	0.00	n.a.	n.a.	0.12	3.97	16.33	0.32	16.07
11.63	0.00	n.a.	n.a.	0.10	4.97	16.78	0.35	17.57
10.01	0.00	n.a.	n.a.	0.22	4.93	15.24	0.36	17.80
6.01	0.00	n.a.	n.a.	0.13	4.28	10.48	0.30	18.61
0.31	3.78	n.a.	n.a.	0.09	2.80	7.04	0.27	16.39
0.67	4.07	n.a.	n.a.	0.08	2.51	7.38	0.32	24.35
1.25	4.56	n.a.	n.a.	0.10	2.75	8.72	0.35	28.49
0.28	2.80	n.a.	n.a.	0.07	2.74	5.91	0.20	17.67
0.22	2.67	n.a.	n.a.	0.05	1.82	4.78	0.18	17.50
0.30	2.53	n.a.	n.a.	0.04	1.79	4.68	0.17	18.51
0.39	2.55	0.13	0.05	0.04	1.00	4.19	0.17	20.71

5.2.1 Energy Consumption in Household Sector

(in Original Unit)

Year	Traditional Biomass[1)]	Gas	Kerosene	LPG	Biogas	Electricity
	Thousand Ton	MMSCF	Kilo Liter	Thousand Ton	Thousand m^3	GWh
2015	16,740	861	658,537	6,115	18,953	88,682
2016	14,965	923	512,604	6,370	22,800	93,635
2017	12,185	1,363	525,429	6,896	24,786	94,457
2018	11,607	1,333	513,411	7,252	25,670	97,927
2019	10,056	2,238	484,392	7,459	26,277	103,833
2020[2)]	8,995	2,464	449,994	7,694	27,856	112,171
2021	8,592	3,073	448,180	8,015	28,390	115,380
2022[2)]	6,774	4,059	431,506	8,211	32,520	116,106
2023	7,313	5,862	430,745	8,353	110,793	122,351
2024[2)]	6,055	5,666	442,413	8,536	94,626	130,446
2025	5,185	4,705	508,423	8,883	103,198	134,576

Note : 1) Estimation data
2) Revised data for traditional biomass

5.2.2 Energy Consumption in Household Sector

(in Energy Unit)

(Thousand BOE)

Year	Traditional Biomass[1)]	Gas	Kerosene	LPG	Biogas	Electricity	Total
2015	38,468	155	3,903	52,130	120	54,362	149,138
2016	34,387	166	3,038	54,302	145	57,398	149,436
2017	28,000	245	3,114	58,783	157	57,902	148,202
2018	26,672	239	3,043	61,819	163	60,029	151,965
2019	23,108	402	2,871	63,583	167	63,649	153,780
2020[2)]	20,671	442	2,667	65,592	177	68,761	158,310
2021	19,743	552	2,657	68,328	180	70,728	162,188
2022[2)]	15,565	729	2,558	69,992	206	71,173	160,223
2023	16,804	1,053	2,553	71,206	702	75,001	167,320
2024[2)]	13,914	1,018	2,622	72,769	600	79,963	170,887
2025	11,915	845	3,014	75,727	654	82,495	174,650

Note : 1) Estimation data
2) Revised data for traditional biomass

5.2.3 Share of Energy Consumption in Household Sector

(%)

Year	Gas	Kerosene	LPG	Biogas	Electricity
2015	0.14	3.53	47.10	0.11	49.12
2016	0.14	2.64	47.20	0.13	49.89
2017	0.20	2.59	48.90	0.13	48.17
2018	0.19	2.43	49.34	0.13	47.91
2019	0.31	2.20	48.66	0.13	48.71
2020	0.32	1.94	47.66	0.13	49.96
2021	0.39	1.86	47.97	0.13	49.65
2022	0.50	1.77	48.38	0.14	49.20
2023	0.70	1.70	47.31	0.47	49.83
2024	0.65	1.67	46.36	0.38	50.94
2025	0.52	1.85	46.53	0.40	50.69

5.3.1 Energy Consumption in Commercial Sector

(in Original Unit)

Year	Traditonal Biomass[1)]	Solar Water Heater	Gas	Oil Fuel[3)]				
				Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98+100	
	Thousand Ton	Thousand TOE	MMSCF	Kilo Liter				
2015	586	62	7,990	36,364	n.a.	n.a.	n.a.	
2016	583	71	7,084	28,306	n.a.	n.a.	n.a.	
2017	580	82	6,705	29,014	n.a.	n.a.	n.a.	
2018	577	93	6,745	28,350	n.a.	n.a.	n.a.	
2019	574	104	6,871	26,748	n.a.	n.a.	n.a.	
2020	571	112	4,076	24,848	n.a.	n.a.	n.a.	
2021	569	122	3,906	24,748	n.a.	n.a.	n.a.	
2022	566	128	4,297	23,828	n.a.	n.a.	n.a.	
2023	563	261	2,035	23,786	n.a.	n.a.	n.a.	
2024[4)]	560	330	2,986	24,430	n.a.	n.a.	n.a.	
2025	557	339	3,582	436	2	289	35	

Note : 1) Estimation Data
2) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
3) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas
4) Revised data

Oil Fuel[3]							LPG	Electricity
Gasoil CN 48	Bio Gasoil[2]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total		
Kilo Liter							Thousand Ton	GWh
658,056	0	n.a.	n.a.	238	n.a.	694,658	167	49,879
613,741	0	n.a.	n.a.	189	n.a.	642,236	176	54,002
552,811	0	n.a.	n.a.	441	n.a.	582,267	191	56,202
411,011	0	n.a.	n.a.	320	n.a.	439,681	201	59,570
24,403	295,720	n.a.	n.a.	255	n.a.	347,126	207	63,611
59,022	273,273	n.a.	n.a.	190	n.a.	357,334	213	58,963
82,251	299,064	n.a.	n.a.	244	n.a.	406,308	222	61,115
33,116	334,322	n.a.	n.a.	287	n.a.	391,552	227	68,921
29,509	352,002	n.a.	n.a.	219	n.a.	405,515	231	77,211
42,865	363,011	n.a.	n.a.	210	n.a.	430,516	236	83,292
58,818	126,460	13,117	6,617	20	41,722	247,516	246	87,589

5.3.2 Energy Consumption in Commercial Sector

(in Energy Unit)

Year	Traditional Biomass[1)]	Solar Water Heater	Gas	Oil Fuel[3)]				
				Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98+100	
2015	1,346	457	1,435	216	n.a.	n.a.	n.a.	
2016	1,340	521	1,272	168	n.a.	n.a.	n.a.	
2017	1,333	603	1,204	172	n.a.	n.a.	n.a.	
2018	1,326	682	1,211	168	n.a.	n.a.	n.a.	
2019	1,320	759	1,234	159	n.a.	n.a.	n.a.	
2020	1,313	824	732	147	n.a.	n.a.	n.a.	
2021	1,307	893	701	147	n.a.	n.a.	n.a.	
2022	1,300	936	772	141	n.a.	n.a.	n.a.	
2023	1,294	1,915	365	141	n.a.	n.a.	n.a.	
2024[4)]	1,287	2,421	536	145	n.a.	n.a.	n.a.	
2025	1,281	2,484	643	3	0	2	0	

Note : 1) Estimation Data
2) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
3) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas
4) Revised data

(Thousand BOE)

Oil Fuel[3]							LPG	Electricity	Total
Gasoil CN 48	Bio Gasoil[2]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total			
4,269	0	n.a.	n.a.	2	n,a,	4,486	1,428	30,576	39,728
3,981	0	n.a.	n.a.	1	n,a,	4,150	1,504	33,103	41,890
3,586	0	n.a.	n.a.	3	n,a,	3,761	1,630	34,452	42,983
2,666	0	n.a.	n.a.	2	n,a,	2,836	1,712	36,517	44,284
158	1,918	n.a.	n.a.	2	n,a,	2,237	1,761	38,993	46,303
383	1,773	n.a.	n.a.	1	n,a,	2,304	1,816	36,144	43,134
534	1,940	n.a.	n.a.	2	n,a,	2,622	1,892	37,463	44,878
215	2,169	n.a.	n.a.	2	n,a,	2,527	1,938	42,249	49,721
191	2,283	n.a.	n.a.	1	n,a,	2,617	1,972	47,331	55,494
278	2,355	n.a.	n.a.	1	n,a,	2,779	2,015	51,058	60,097
382	820	85	43	0	290	1,625	2,097	53,692	61,822

5.3.3 Share of Energy Consumption in Commercial Sector

Year	Solar Water Heater	Gas	Oil Fuel[2)]				
			Kerosene	Gasoline RON 90	Gasoline RON 92	Gasoline RON 95+98+100	
2015	1.21	3.78	0.57	n.a.	n.a.	n.a.	
2016	1.30	3.18	0.42	n.a.	n.a.	n.a.	
2017	1.47	2.93	0.42	n.a.	n.a.	n.a.	
2018	1.61	2.87	0.40	n.a.	n.a.	n.a.	
2019	1.72	2.79	0.36	n.a.	n.a.	n.a.	
2020	2.01	1.79	0.36	n.a.	n.a.	n.a.	
2021	2.09	1.64	0.34	n.a.	n.a.	n.a.	
2022	1.93	1.59	0.29	n.a.	n.a.	n.a.	
2023	3.66	0.70	0.27	n.a.	n.a.	n.a.	
2024	4.12	0.91	0.25	n.a.	n.a.	n.a.	
2025	4.10	1.06	0.00	0.00	0.00	0.00	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas

(%)

Oil Fuel[2]						LPG	Electricity
Gasoil CN 48	Bio Gasoil [1]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil		
11.26	0.00	n.a.	n.a.	0.00	n.a.	3.76	80.62
9.95	0.00	n.a.	n.a.	0.00	n.a.	3.76	82.70
8.74	0.00	n.a.	n.a.	0.01	n.a.	3.97	83.93
6.31	0.00	n.a.	n.a.	0.01	n.a.	4.05	86.38
0.36	4.34	n.a.	n.a.	0.00	n.a.	3.98	88.17
0.93	4.32	n.a.	n.a.	0.00	n.a.	4.43	88.17
1.25	4.55	n.a.	n.a.	0.00	n.a.	4.43	87.78
0.44	4.48	n.a.	n.a.	0.00	n.a.	4.00	87.25
0.37	4.37	n.a.	n.a.	0.00	n.a.	3.77	90.52
0.47	4.00	n.a.	n.a.	0.00	n.a.	3.43	86.82
0.63	1.36	0.14	0.07	0.00	0.48	3.46	88.69

5.4.1 Energy Consumption in Transportation Sector

(in Original Unit)

Year	Gas	Oil Fuel[2]						
		Avgas	Avtur	Gasoline RON 88	Gasoline RON 92	Gasoline RON 95+98+100	Gasoline RON 90	
	MMSCF	Kilo Liter						
2015	1,635	3,070	4,336,624	27,269,723	2,761,956	278,758	379,959	
2016	1,310	3,172	4,875,486	21,033,867	4,780,929	366,168	5,805,228	
2017	2,576	2,964	5,371,183	12,120,403	6,188,300	379,998	14,487,098	
2018	3,410	3,808	5,717,729	10,434,089	5,643,055	385,977	17,706,790	
2019	2,792	2,366	5,030,485	11,337,192	4,254,343	326,569	19,410,819	
2020	1,686	1,453	2,774,198	8,383,244	4,056,945	353,168	18,143,189	
2021	1,431	1,047	2,031,726	3,358,307	5,713,190	481,184	23,297,401	
2022	1,807	1,409	3,320,023	6,115	5,776,110	320,353	29,697,521	
2023	2,135	1,670	4,331,309	0	5,438,351	361,338	30,223,847	
2024[3]	1,446	1,212	4,576,158	0	6,390,432	397,062	29,857,094	
2025	3,117	1,230	4,648,137	0	7,843,861	613,949	28,182,510	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas
3) Revised data

Oil Fuel[2]								Electricity
Gasoil CN 51	Gasoil CN 53	Kerosene	Gasoil CN 48	MDF	Fuel Oil	Bio Gasoil[1]	Total Oil Fuel	
Kilo Liter								GWh
38,552	0	291	7,469,653	1,772	27,149	14,156,373	56,723,880	205
105,889	136,311	226	6,966,634	1,408	33,004	12,141,027	56,249,349	223
391,895	178,695	232	6,275,015	3,283	34,267	14,472,082	59,905,416	236
666,191	199,901	227	4,665,428	2,379	36,809	20,082,381	65,544,765	274
547,193	287,043	214	277,001	1,894	27,614	26,188,701	67,691,434	301
507,151	268,111	199	516,042	1,413	21,428	24,470,536	59,497,078	292
701,009	333,628	198	933,639	1,818	22,683	26,484,837	63,360,667	317
1,024,064	374,782	190	375,826	2,131	41,216	29,604,664	70,544,404	344
827,325	374,152	190	334,955	1,642	30,229	31,181,237	73,106,243	387
879,345	426,018	195	486,565	1,561	32,372	32,147,891	75,195,904	399
871,438	440,348	789	667,649	44,740	641,342	32,376,844	76,332,836	559

5.4.2 Energy Consumption in Transportation Sector

(in Energy Unit)

Year	Gas	Oil Fuel[2)]							
		Avgas	Avtur	Gasoline RON 88	Gasoline RON 92	Gasoline RON 95+98+100	Gasoil RON 90	Gasoil CN 51	
2015	294	17	25,546	158,914	16,095	1,624	2,214	250	
2016	235	18	28,720	122,575	27,861	2,134	33,830	687	
2017	463	16	31,640	70,632	36,062	2,214	84,424	2,542	
2018	612	21	33,681	60,805	32,885	2,249	103,186	4,322	
2019	501	13	29,633	66,067	24,792	1,903	113,117	3,550	
2020	303	8	16,342	48,853	23,642	2,058	105,729	3,290	
2021	257	6	11,968	19,571	33,294	2,804	135,766	4,548	
2022	324	8	19,557	36	33,660	1,867	173,062	6,643	
2023	383	9	25,514	0	31,692	2,106	176,129	5,367	
2024[3)]	260	7	26,957	0	37,240	2,314	173,992	5,704	
2025	560	7	27,381	0	45,710	3,578	164,234	5,653	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas
3) Revised data

(Thousand BOE)

	Oil Fuel[2]							Electricity	Total
	Gasoil CN 53	Kerosene	Gasoil CN 48	MDF	Fuel Oil	Bio Gasoil[1]	Total Oil Fuel		
	0	2	48,456	12	189	91,834	345,154	126	345,573
	884	1	45,193	9	230	78,760	340,902	137	341,274
	1,159	1	40,707	22	239	93,882	363,540	144	364,147
	1,297	1	30,265	16	256	130,276	399,261	168	400,042
	1,862	1	1,797	13	192	169,889	412,829	185	413,515
	1,739	1	3,348	9	149	158,743	363,912	179	364,394
	2,164	1	6,057	12	158	171,810	388,157	194	388,609
	2,431	1	2,438	14	287	192,048	432,053	211	432,589
	2,427	1	2,173	11	210	202,276	447,916	237	448,537
	2,764	1	3,156	10	225	208,547	460,918	245	461,422
	2,857	5	4,331	296	4,465	210,032	468,547	343	469,449

5.4.3 Share of Energy Consumption in Transportation Sector

Year	Gas	Oil Fuel[2)]						
		Avgas	Avtur	Gasoline RON 88	Gasoline RON 92	Gasoline RON 95+98+100	Gasoil RON 90	
2015	0.08	0.00	7.39	45.99	4.66	0.47	0.64	
2016	0.07	0.01	8.42	35.92	8.16	0.63	9.91	
2017	0.13	0.00	8.69	19.40	9.90	0.61	23.18	
2018	0.15	0.01	8.42	15.20	8.22	0.56	25.79	
2019	0.12	0.00	7.17	15.98	6.00	0.46	27.35	
2020	0.08	0.00	4.48	13.41	6.49	0.56	29.02	
2021	0.07	0.00	3.08	5.04	8.57	0.72	34.94	
2022	0.08	0.00	4.52	0.01	7.78	0.43	40.01	
2023	0.09	0.00	5.69	0.00	7.07	0.47	39.27	
2024	0.06	0.00	5.84	0.00	8.07	0.50	37.71	
2025	0.12	0.00	5.83	0.00	9.74	0.76	34.98	

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas

(%)

	Oil Fuel[2]								Electricity
	Gasoil CN 51	Gasoil CN 53	Kerosene	Gasoil CN 48	MDF	Fuel Oil	Bio Gasoil[1]	Total Oil Fuel	
	0.07	0.00	0.00	14.02	0.00	0.05	26.57	99.88	0.04
	0.20	0.26	0.00	13.24	0.00	0.07	23.08	99.89	0.04
	0.70	0.32	0.00	11.18	0.01	0.07	25.78	99.83	0.04
	1.08	0.32	0.00	7.57	0.00	0.06	32.57	99.80	0.04
	0.86	0.45	0.00	0.43	0.00	0.05	41.08	99.83	0.04
	0.90	0.48	0.00	0.92	0.00	0.04	43.56	99.87	0.05
	1.17	0.56	0.00	1.56	0.00	0.04	44.21	99.88	0.05
	1.54	0.56	0.00	0.56	0.00	0.07	44.40	99.88	0.05
	1.20	0.54	0.00	0.48	0.00	0.05	45.10	99.86	0.05
	1.24	0.60	0.00	0.68	0.00	0.05	45.20	99.89	0.05
	1.20	0.61	0.00	0.92	0.06	0.95	44.74	99.81	0.07

5.5.1 Energy Consumption in Others Sector

(in Original Unit)

Year	Mogas	Kerosene	Gasoil CN 48	Bio Gasoil[1)]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total Oil Fuel
	Kilo Liter								
2015	837,299	30,091	2,318,521	0	n.a.	n.a.	6,635	224,472	3,417,019
2016	645,831	23,423	2,162,388	0	n.a.	n.a.	5,272	272,888	3,109,802
2017	372,149	24,009	1,947,715	0	n.a.	n.a.	12,289	283,329	2,639,491
2018	320,372	23,460	1,448,112	0	n.a.	n.a.	8,907	304,347	2,105,198
2019	348,101	22,134	85,979	1,041,908	n.a.	n.a.	7,089	228,319	1,733,531
2020	257,402	20,562	160,175	973,552	n.a.	n.a.	5,290	177,171	1,594,152
2021	103,115	20,479	289,794	1,053,690	n.a.	n.a.	6,805	187,549	1,661,432
2022	188	19,717	116,653	1,177,811	n.a.	n.a.	7,977	340,783	1,663,129
2023	0	19,682	103,967	1,240,535	n.a.	n.a.	6,146	249,941	1,620,271
2024[3)]	0	20,215	151,026	1,278,993	n.a.	n.a.	5,843	267,663	1,723,740
2025[2)]	30,849	74	207,233	1,369,919	71,389	20,738	22,213	295,512	2,017,927

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity
3) Revised data

5.5.2 Energy Consumption in Others Sector

(in Energy Unit)

(Thousand BOE)

Year	Mogas	Kerosene	Gasoil CN 48	Bio Gasoil[1)]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil	Total Oil Fuel
2015	4,879	178	15,040	0	n.a.	n.a.	44	1,563	21,705
2016	3,764	139	14,028	0	n.a.	n.a.	35	1,900	19,865
2017	2,169	142	12,635	0	n.a.	n.a.	81	1,972	17,000
2018	1,867	139	9,394	0	n.a.	n.a.	59	2,119	13,578
2019	2,029	131	558	6,759	n.a.	n.a.	47	1,589	11,113
2020	1,500	122	1,039	6,316	n.a.	n.a.	35	1,233	10,245
2021	601	121	1,880	6,835	n.a.	n.a.	45	1,306	10,788
2022	1	117	757	7,641	n.a.	n.a.	53	2,372	10,940
2023	0	117	674	8,047	n.a.	n.a.	41	1,740	10,619
2024[3)]	0	120	980	8,297	n.a.	n.a.	39	1,863	11,298
2025[2)]	180	0	1,344	8,887	463	135	147	2,057	13,213

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity
3) Revised data

5.5.3 Share of Energy Consumption in Others Sector

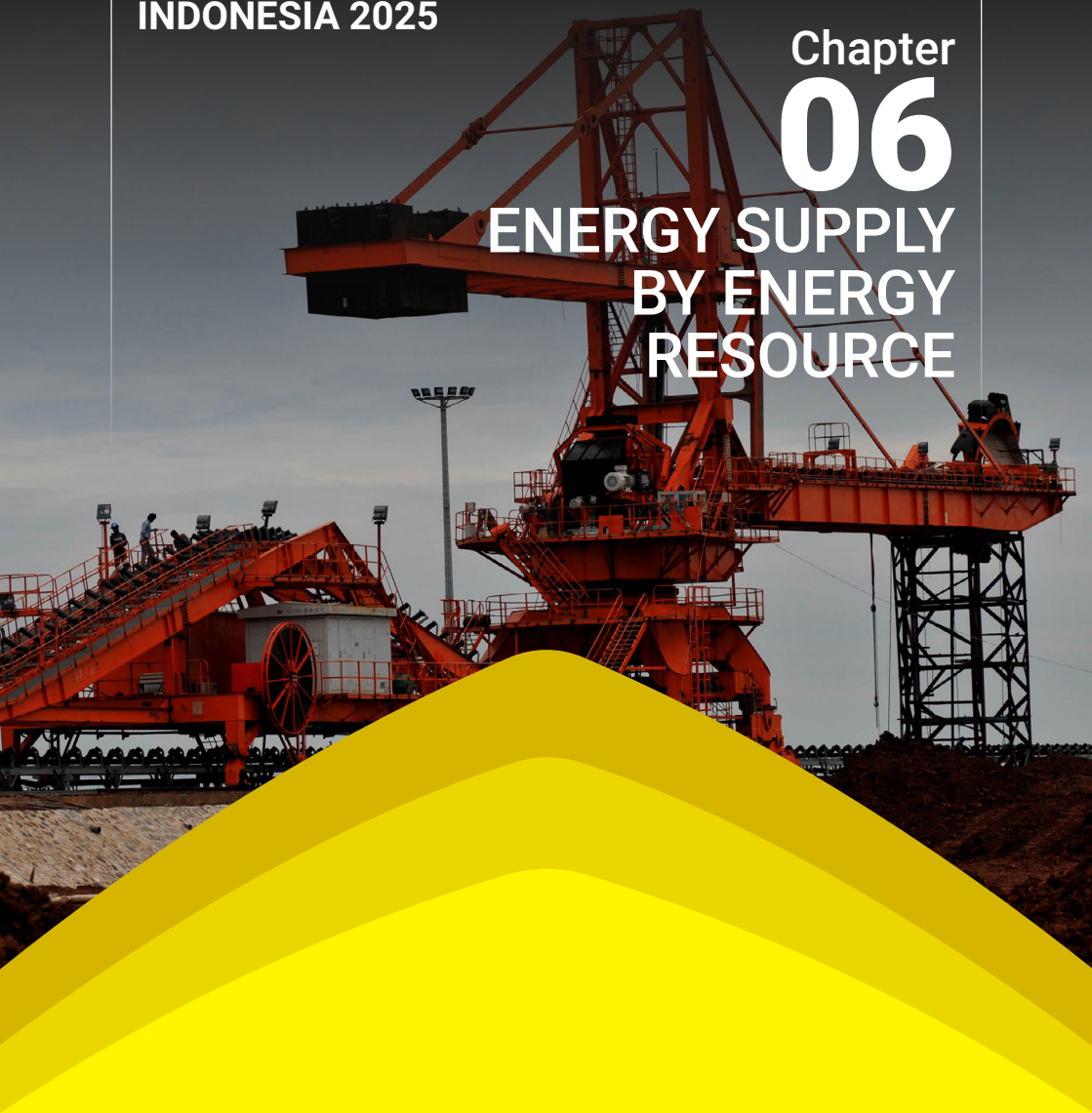
(%)

Year	Mogas	Kerosene	Gasoil CN 48	Bio Gasoil[1)]	Gasoil CN 51	Gasoil CN 53	MDF	Fuel Oil
2015	22.48	0.82	69.30	0.00	n.a.	n.a.	0.20	7.20
2016	18.95	0.70	70.62	0.00	n.a.	n.a.	0.18	9.56
2017	12.76	0.84	74.33	0.00	n.a.	n.a.	0.48	11.60
2018	13.75	1.02	69.19	0.00	n.a.	n.a.	0.43	15.60
2019	18.25	1.18	5.02	60.82	n.a.	n.a.	0.42	14.30
2020	14.64	1.19	10.14	61.65	n.a.	n.a.	0.34	12.04
2021	5.57	1.13	17.43	63.36	n.a.	n.a.	0.42	12.10
2022	0.01	1.07	6.92	69.84	n.a.	n.a.	0.48	21.68
2023	0.00	1.10	6.35	75.78	n.a.	n.a.	0.38	16.38
2024	0.00	1.06	8.67	73.44	n.a.	n.a.	0.34	16.49
2025[2)]	1.36	0.00	10.17	67.26	3.50	1.02	1.11	15.57

Note : 1) Based on Regulation of the Minister of Energy and Mineral Resources No. 12 year 2015 regarding to mandatory of minimum biodiesel utilization as blending product of gasoil by 30% in 2020
2) Since 2025, the methodology has been revised to use actual reports from Regulatory Body for Oil and Gas Downstream Activity

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025



Chapter 06

ENERGY SUPPLY BY ENERGY RESOURCE

6.1.1 Coal Resources and Reserves

as of December 2025

(Million Ton)

Province Code[2]	Province	Exploration Target[1]	Total Inventory[1]	Resources[1]				Reserves
				Inferred	Indicated	Measured	Total	
11	Aceh	1.16	20.92	314.58	401.94	326.23	1,042.75	507.05
12	North Sumatera	0.00	14.62	10.24	8.48	7.55	26.26	7.12
13	West Sumatera	2.63	333.93	21.92	13.80	33.31	69.02	26.04
14	Riau	36.92	505.63	256.30	280.85	365.64	902.80	378.23
15	Jambi	142.37	1,145.56	962.64	1,203.29	1,512.70	3,678.63	1,272.53
16	South Sumatera	4,885.39	10,769.38	5,181.21	7,723.28	7,668.58	20,573.07	7,804.87
17	Bengkulu	44.28	211.92	95.95	88.02	162.28	346.24	149.47
18	Lampung	0.00	106.95	60.32	24.28	10.25	94.85	56.00
33	Central Java	0.00	0.82	0.00	0.00	0.00	0.00	0.00
35	East Java	0.00	0.08	0.00	0.00	0.00	0.00	0.00
36	Banten	5.47	52.20	0.00	0.00	0.00	0.00	0.00
61	West Kalimantan	2.26	463.44	19.28	13.15	38.55	70.98	11.22
62	Central Kalimantan	37.00	2,803.04	3,145.04	2,919.29	3,300.58	9,364.91	2,959.90
63	South Kalimantan	7.83	1,710.81	3,365.20	2,913.94	6,598.31	12,877.45	3,292.63
64	East Kalimantan	890.55	13,901.22	9,727.17	14,876.76	21,325.71	45,929.64	15,688.57
65	North Kalimantan	25.79	386.04	892.49	929.81	1,018.39	2,840.69	1,092.39
72	Central Sulawesi	0.52	1.98	0.00	0.00	0.00	0.00	0.00
73	South Sulawesi	13.79	31.31	0.00	0.00	0.00	0.00	0.00
74	Southeast Sulawesi	0.64	0.00	0.00	0.00	0.00	0.00	0.00
76	West Sulawesi	11.47	26.26	0.00	0.00	0.00	0.00	0.00
82	North Maluku	8.22	0.00	0.00	0.00	0.00	0.00	0.00
91	Papua	5.12	31.36	0.00	0.00	0.00	0.00	0.00
92	West Papua	4.10	30.91	0.00	0.00	0.00	0.00	0.00
93	South Papua	0.80	0.00	0.00	0.00	0.00	0.00	0.00
94	Central Papua	1.28	0.00	0.00	0.00	0.00	0.00	0.00
96	Southwest Papua	89.56	1.91	6.00	5.70	7.20	18.90	4.09
TOTAL		**6,217.14**	**32,550.30**	**24,058.34**	**31,402.58**	**42,375.28**	**97,836.20**	**33,250.10**

Source : Geological Agency
Note : Since 2025, only coal resources and reserves verified by Competent Person Indonesia are used
1) Classification based on Indonesian National Standard 2015-2019
2) Province code refers to the Ministry of Home Affairs

6.1.2 Coal Supply

(Ton)

Year	Production[1)]	Export	Import
	Steam Coal		
2015	461,566,080	365,849,610	3,038,701
2016	456,197,775	331,128,438	4,118,833
2017	461,248,184	286,936,795	4,733,352
2018	557,772,940	356,394,687	5,919,784
2019	616,159,594	454,500,164	7,391,172
2020	563,728,255	405,052,868	8,949,453
2021	613,990,256	435,217,208	14,524,132
2022	687,432,384	465,335,605	12,396,727
2023	775,181,855	518,045,831	14,457,536
2024[2)]	836,131,585	555,335,800	20,886,425
2025	817,478,697	522,560,236	26,081,210

Sources : 1. Directorate General of Mineral and Coal
2. BPS for Import Data
Note : 1) The type of coal produced in Indonesia is only steam coal
2) Revised data for production

6.1.3 Indonesia Coal Export by Destination

Year	China	India	Japan	South Korea	Taiwan	Hongkong	
2015	41,898	79,111	23,252	14,111	10,643	7,263	
2016	53,887	56,277	29,798	13,574	12,784	6,475	
2017	51,201	46,241	22,177	17,284	10,230	5,715	
2018	63,429	49,967	23,081	18,732	7,615	3,423	
2019	144,415	116,949	27,679	29,743	21,140	7,502	
2020	127,789	97,507	26,970	24,778	17,009	3,864	
2021	196,243	72,124	22,740	21,260	16,199	5,301	
2022	173,323	109,843	26,474	26,297	18,038	5,108	
2023	218,207	107,976	25,603	25,955	14,968	4,931	
2024	239,309	107,805	28,635	27,546	15,392	4,578	
2025	213,224	99,918	27,280	28,680	15,366	3,184	

Source : Directorate General of Mineral and Coal
Note : Since 2019 based on surveyor report

(Thousand Ton)

	Malaysia	Philippines	Thailand	Spain	Others	Total
	7,719	11,816	9,380	3,846	156,810	365,850
	11,265	13,434	8,720	3,532	121,381	331,128
	13,651	10,443	5,379	2,437	102,178	286,937
	12,701	12,212	6,611	3,227	155,397	356,395
	24,188	26,846	17,286	1,175	37,577	454,500
	26,192	27,483	16,884	0	36,578	405,053
	25,588	30,160	15,294	77	30,230	435,217
	25,314	30,780	15,533	408	34,217	465,336
	28,109	36,083	11,736	0	44,479	518,046
	27,163	38,551	13,548	0	52,808	555,336
	27,644	37,122	14,585	78	55,480	522,560

6.1.4 Domestic Coal Sales

Year	Total	Iron, Steel & Metallurgy[1)]	Power Plant	
2015	86,814,099	399,000	70,080,000	
2016	90,550,000	390,000	75,400,000	
2017	97,030,000	300,000	83,000,000	
2018	115,080,000	1,750,000	91,140,000	
2019	138,418,192	10,064,750	98,550,260	
2020	131,886,643	13,210,585	104,829,892	
2021	133,043,362	11,393,020	112,133,733	
2022	215,813,240	49,375,407	129,226,621	
2023	212,867,547	60,111,682	121,197,161	
2024[3)]	232,598,100	69,524,500	133,464,100	
2025	246,880,000	76,300,000	141,400,000	

Source : Directorate General of Mineral and Coal
Note : 1) In 2018 - 2019, there is acceleration for downstream mineral industry
2) In 2009-2015, others sales include trader since 2016, others sales not include traderin 2019 companies report the data through online reporting, which consists of the plantation, forestry, and uncategorized sales. there is estimation of uncategorized sales data into cement, textile & fertilizer, also pulp & paper
3) Revised data

(Ton)

	Cement, Textile, Fertilizer	Pulp & Paper	Briquette	Others[2)]
	7,180,000	4,310,000	13,174	4,831,925
	10,540,000	4,190,000	30,000	0
	9,802,000	3,898,000	30,000	0
	19,030,000	3,150,000	10,000	0
	22,515,239	3,304,980	7,969	3,974,994
	6,511,942	2,000,387	52,826	5,281,012
	4,681,560	1,116,329	0	3,718,720
	13,112,483	6,300,036	0	17,798,692
	9,808,254	5,376,405	980	16,373,065
	10,266,200	5,851,100	600	13,491,600
	10,660,000	5,420,000	0	13,100,000

6.2.1 Oil Reserves

as of 1 January 2025

(MMSTB)

Region[4]	Reserves[1]			Total
	Proven (P1)	Probable (P2)	Possible (P3)	
Aceh	15.59	1.24	1.61	18.44
North Sumatera	2.57	0.03	0.20	2.80
Central Sumatera	708.85	242.21	376.40	1.327.46
Southern Sumatera	320.92	47.57	91.46	459.95
Natuna	83.67	51.31	26.36	161.34
Western Java	216.55	92.75	153.77	463.07
Eastern Java	383.73	394.25	100.30	878.28
Kalimantan	246.89	157.16	169.76	573.82
Sulawesi	39.76	3.80	12.58	56.14
Maluku	211.60	68.79	92.40	372.79
Papua	95.63	5.65	8.16	109.45
Total				**4,423.52**

(Million Barrel)

Year	Contingent Resources[1)]	
	C1[2)]	C2 + C3[3)]
2025	2.896,46	3.367,92

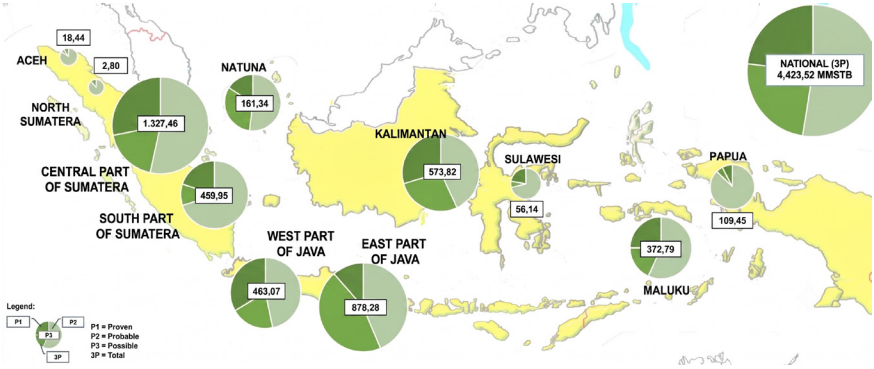


Figure 12: Oil Reserves per Region (MMSTB)

Source : Directorate General of Oil and Gas
Note : 1) Based on new parameter of Petroleum Resources Management System 2018
(it was considered as an oil reserves, however part of oil reserves has not been developed, it has been catego rized as contingent resources since 2019)
2) Contingent resources = low estimate (C1)
3) Contingent resources = medium estimate (C2) + high estimate (C3)
4) Region is not based on administrative boundaries

6.2.2 Refinery Capacity in 2025

(MBSD)

Province Code[1)]	Province	Refinery	Refinery Capacity
14	Riau	Dumai	170.00
16	South Sumatera	Plaju	126.30
32	West Java	Balongan	150.00
33	Central Java	Cilacap	348.00
33	Central Java	Cepu	3.80
35	East Java	Tri Wahana Universal (TWU)	18.00
35	East Java	Tuban (TPPI)	100.00
64	East Kalimantan	Balikpapan	260.00
96	Southwest Papua	Kasim	10.00
Total			**1,186.10**

Source : Directorate General of Oil and Gas
Note : 1) Province code refers to the Ministry of Home Affairs

6.2.3 Crude Oil Supply and Demand

Year	Production	Export	Import	Oil Refinery Input	
	Thousand bbl	Thousand bbl	Thousand bbl	Crude (Thousand bbl)	Crude (Thousand bpd)
2015	286,814	115,063	136,666	271,372	743
2016	304,167	125,541	148,361	323,910	887
2017	292,374	102,737	141,616	323,142	885
2018	281,780	74,472	126,082	334,281	916
2019	272,025	25,971	89,315	334,963	918
2020	259,247	31,448	79,685	302,344	826
2021	240,367	43,769	104,403	300,371	823
2022	223,532	14,813	114,527	322,541	884
2023	221,089	21,396	132,386	331,038	907
2024	212,332	27,199	127,792	311,546	854
2025	221,229	22,518	133,392	322,381	883

Source : Directorate General of Oil and Gas
Note : 1) Since 2025, NGL included in Crude Oil

6.2.4 Domestic Oil Fuels Sales

Fuel Types	2015	2016	2017	2018	2019
Avgas	3,070	3,172	2,964	3,808	2,366
Avtur	4,336,624	4,875,486	5,371,183	5,717,729	5,030,485
RON 88	28,107,022	21,679,698	12,492,553	10,754,461	11,685,293
Kerosene	769,233	598,769	613,750	599,712	565,815
Gasoil CN48[1)]	15,016,321	14,005,096	12,614,727	9,378,959	556,859
MDF	53,069	42,163	98,288	71,239	56,702
Fuel Oil	1,647,441	2,002,773	2,079,400	2,233,655	1,675,675
Gasoline RON 95[2)]	278,758	366,168	379,998	385,977	326,569
Gasoline RON 92	2,761,956	4,780,929	6,188,300	5,643,055	4,254,343
Gasoline RON 90	379,959	5,805,228	14,487,098	17,706,790	19,410,819
Gasoil CN53	n.a	136,311	178,695	199,901	287,043
Gasoil CN51	38,552	105,889	391,895	666,191	547,193
Bio Gasoil	14,156,373	13,747,237	16,078,292	20,717,619	30,045,699
Total Oil Fuel	**67,548,378**	**68,148,919**	**70,977,143**	**74,079,096**	**74,444,861**

Sources : 1. Directorate General of Oil and Gas
2. Regulatory Body for Oil and Gas Downstream Activity

Note : 1) Since 2019, there is only relaxation of sales of pure Gasoil CN 48 to the Military Equpment, PT PLN and PT Freeport Indonesia
2) Addition of domestic sales of RON 98 since 2016
3) Revised Data

(Kilo Liter)

	2020	2021	2022	2023	2024[3)]	2025
	1,453	1,047	1,409	1,670	1,212	1,230
	2,774,198	2,031,726	3,320,023	4,331,309	4,576,158	4,648,137
	8,640,647	3,461,421	6,303	0	0	0
	525,635	523,516	504,040	503,151	516,779	515,750
	1,037,405	1,876,903	755,527	673,363	978,147	1,342,181
	42,308	54,426	63,801	49,158	46,729	106,765
	1,300,292	1,376,456	2,501,065	1,834,360	1,964,427	1,970,812
	353,168	481,184	320,353	361,338	397,062	619,768
	4,056,945	5,713,190	5,776,110	5,438,351	6,390,432	7,872,099
	18,143,189	23,297,401	29,697,521	30,223,847	29,857,094	28,215,883
	268,111	333,628	374,782	374,152	426,018	519,756
	507,151	701,009	1,024,064	827,325	879,345	1,095,219
	28,074,488	30,385,449	33,964,755	35,773,521	36,882,541	37,149,230
	65,724,990	**70,237,358**	**78,309,753**	**80,391,543**	**82,915,945**	**84,056,831**

6.2.5 Refinery Production by Type

Year	Gasoline RON 88 + RON 90	Avtur + JP5	Avgas	Kerosene	Gasoil CN 48	
2015	71,733	20,240	0	4,977	129,306	
2016	68,878	22,794	0	6,459	123,818	
2017	53,712	22,917	0	6,041	133,920	
2018	56,313	26,255	0	5,958	139,783	
2019	51,378	29,716	0	6,961	135,062	
2020	41,830	19,394	0	4,751	121,197	
2021	62,216	15,259	0	2,394	130,584	
2022[1)]	78,229	18,904	0	2,552	129,804	
2023	83,104	26,316	0	2,405	126,703	
2024	82,324	19,397	0	1,057	114,672	
2025	84,800	22,110	0	20	124,772	

Source : Directorate General of Oil and Gas
Note : 1) Revised data

(Thousand Barrel)

	MDF	Fuel Oil	Gasoline RON 95, RON 98, & RON 100	Gasoline RON 92	Gasoil CN 51 & CN 53	Total Oil Fuel
	972	11,979	672	8,725	242	248,846
	969	18,309	592	24,432	503	266,753
	876	9,827	604	39,085	577	267,559
	714	12,034	779	36,877	1,870	280,584
	503	11,177	1,051	42,424	1,932	280,204
	820	10,893	1,625	48,294	2,671	251,475
	191	12,083	2,469	28,572	2,274	256,041
	146	20,549	1,303	7,495	2,677	261,659
	91	25,420	606	5,870	2,620	273,134
	3	21,765	847	6,838	2,086	248,989
	41	21,002	783	5,668	3,846	263,041

6.2.5 Refinery Production by Type
(continued)

Year	Secondary Fuel				
	Naphtha	LOMC	LSWR	Total	
2015	13,089	3,131	24,713	40,933	
2016	13,641	107	24,798	38,546	
2017	18,165	1,223	26,565	45,953	
2018	19,334	349	22,815	42,498	
2019	18,782	0	26,162	44,944	
2020	16,006	0	21,497	37,504	
2021	231	0	4,905	5,137	
2022[1)]	1,406	0	14,682	16,089	
2023	568	0	14,487	15,055	
2024[1)]	144	0	22,419	22,562	
2025	469	0	20,399	20,868	

Source : Directorate General of Oil and Gas
Note : 1) Revised data

(Thousand Barrel)

	Non Fuel	Lubricant	LPG	HOMC	Total Production
	27,175	0	8,084	4,498	329,536
	15,770	2,019	10,297	6,904	340,289
	22,470	2,457	10,062	8,254	356,755
	22,656	2,787	10,289	6,763	365,576
	23,093	2,332	9,936	6,269	366,779
	27,032	2,339	10,183	6,311	334,844
	23,666	2,160	10,145	79	297,228
	24,160	2,073	10,073	112	314,391
	21,843	1,695	10,762	128	322,617
	23,723	2,181	10,675	123	307,384
	22,419	1,840	9,395	114	317,678

6.2.6 Import of Refined Products

Year	Avtur	Avgas	Gasoline RON 88 & RON 90[1)]	Gasoline RON 95	Gasoline RON 92	
2015	1,153	3	17,211	57	1,303	
2016	1,119	2	12,879	140	3,783	
2017	1,786	3	10,423	180	7,012	
2018	1,518	4	9,229	277	9,295	
2019	280	2	11,084	150	7,954	
2020	0	1	9,732	106	6,157	
2021	0	1	8,145	101	9,840	
2022[2)]	448	2	15,106	85	6,391	
2023[2)]	278	1	16,122	126	4,666	
2024[2)]	1,786	2	16,445	127	5,142	
2025	1,726	1	15,632	554	7,482	

Source : Directorate General of Oil and Gas
Note : 1) Since 2018, include Gasoline RON 90
2) Revised data

(Thousand KL)

	Naphta	HOMC	Gasoil	Fuel Oil	MDF	Total Oil Fuel
	0	1,031	7,040	487	8	28,293
	66	33	4,861	585	31	23,500
	0	759	6,882	392	59	27,496
	15	447	6,499	893	47	28,225
	46	948	3,873	358	32	24,729
	278	218	3,182	216	39	19,929
	38	576	3,190	175	21	22,087
	0	369	5,270	154	6	27,831
	0	215	5,145	197	7	26,757
	91	249	8,017	228	7	32,094
	214	290	4,997	25	75	30,997

6.2.7 Export of Refined Products

Year	Avtur	Kerosene	Gasoil CN 48	Fuel Oil	Gasoline RON 92	
2015	15	589	0	1,377	15	
2016	15	0	1	2,167	9	
2017	15	0	8	2,981	4	
2018	16	0	4	2,011	0	
2019	795	0	0	0	0	
2020	2,886	0	697	346	0	
2021	1,052	0	0	0	0	
2022	11	0	0	10,589	0	
2023	10	0	1	14,189	1	
2024[1)]	11	0	0	11,031	0	
2025	16	0	0	8,615	0	

Source : Directorate General of Oil and Gas
Note : Exclude Petrochemical and Lubricant Refinery
1) Revised data

(Thousand Barrel)

	Gasoline RON 95	Total Oil Fuel	Naphtha	Other Product	Total
	0	1,997	2,550	19,208	23,755
	0	2,192	0	10,666	12,858
	0	3,008	0	11,814	14,822
	0	2,031	0	12,047	14,078
	0	795	0	15,060	15,855
	0	3,928	0	16,519	20,447
	0	1,052	0	11,851	12,903
	0	10,600	0	18,253	28,852
	0	14,201	0	18,858	33,059
	0	11,043	0	23,885	34,928
	0	8,631	0	18,722	27,352

6.2.8 Indonesia Crude Oil Export by Destination

(Thousand Barrel)

Year	Japan	USA	South Korea	Taiwan	Singapore	Others	Total
2015	26,634	13,648	8,481	5,244	15,567	45,489	115,063
2016	18,404	9,943	6,619	6,525	13,581	70,470	125,541
2017	11,901	11,986	7,466	7,543	12,371	51,455	102,723
2018	9,943	10,235	7,122	6,172	7,222	33,777	74,472
2019	160	0	1,765	675	895	22,476	25,971
2020	0	0	635	0	4,573	26,240	31,448
2021	1,094	0	300	575	5,617	36,183	43,769
2022	220	0	225	0	1,154	13,895	15,494
2023	1,693	0	806	0	1,332	17,565	21,396
2024	1,098	0	0	0	1,660	19,324	27,199
2025	155	0	1,997	0	417	19,949	22,518

Source : Directorate General of Oil and Gas

6.2.9 LPG Supply and Demand

(Ton)

Year	Production			Export	Import	Sales[1)]
	Gas Refinery	Oil Refinery	Total			
2015	1,631,599	675,808	2,307,407	408	4,237,499	6,376,990
2016	1,394,804	831,398	2,226,202	494	4,475,929	6,642,633
2017	1,141,552	865,366	2,006,918	372	5,461,934	7,190,871
2018	1,119,049	883,305	2,002,354	434	5,566,572	7,562,893
2019	1,113,475	821,697	1,935,172	457	5,714,693	7,777,990
2020	1,063,499	858,153	1,921,652	334	6,396,962	8,023,805
2021	1,038,750	863,807	1,902,557	351	6,336,354	8,358,499
2022	1,084,956	901,338	1,986,294	174	6,739,131	8,562,019
2023[2)]	1,017,036	958,155	1,975,191	209	6,950,651	8,710,547
2024[2)]	1,008,425	950,396	1,958,821	199	6,911,566	8,901,790
2025	1,065,927	836,454	1,902,381	260	7,498,012	9,263,615

Source : Directorate General of Oil and Gas
Note : 1) LPG sales including refrigerant
2) Revised data

6.3.1 Natural Gas Reserves

as of 1 January 2025

(BSCF)

Region[4]	Reserves[1]			Total
	Proven (P1)	Probable (P2)	Possible (P3)	
Aceh	350,57	18,85	54,59	424,02
North Sumatera	77,61	90,50	161,37	329,47
Central Sumatera	360,64	321,22	118,03	799,89
Southern Sumatera	3,488,97	883,93	934,16	5,307,06
Natuna	667,91	589,91	332,08	1,589,91
Western Java	848,25	161,25	541,76	1,551,26
Eastern Java	2,513,13	460,48	644,98	3,618,59
Kalimantan	4,973,64	3,445,46	3,168,55	11,587,65
Sulawesi	3,141,92	411,40	1,047,20	4,600,52
Maluku	10,134,66	4,460,40	1,188,60	15,783,66
Papua	8,225,02	1,012,99	1,020,78	10,258,78
Total				**55,850,81**

(BSCF)

Year	Contingent Resources[1)]	
	C1[2)]	C2 + C3[3)]
2025	22,510,56	43,218,28

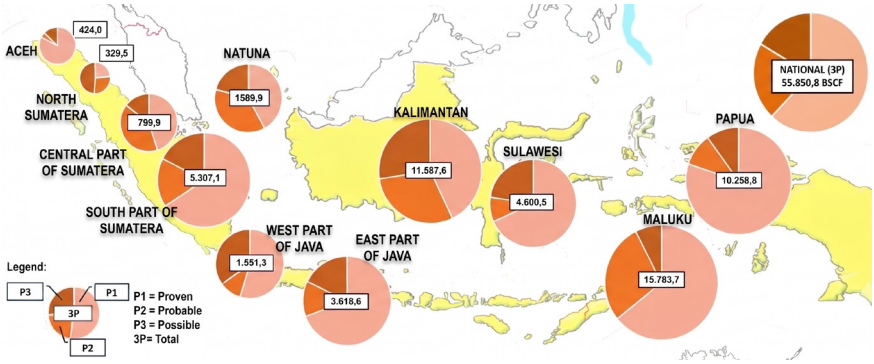


Figure 13: Natural Gas Reserves per Region (BSCF)

Source : Directorate General of Oil and Gas
Note : 1) Based on new parameter of Petroleum Resources Management System 2018 (it was considered as an oil reserves, however part of oil reserves has not been developed, it has been categorized as contingent resources since 2019)
2) Contingent resources = low estimate (C1)
3) Contingent resources = medium estimate (C2) + high estimate (C3)
4) Region is not based on administrative boundaries

6.3.2 Gas Stream

Year	Gross Natural Gas Production[1)]	Gas Lift & Reinjection	Own Use	Flare	
	(MMSCF)	(MMSCF)	(MMSCF)	(MMSCF)	
2015	3,116,142	168,045	214,306	273,402	
2016	3,070,239	170,421	202,571	262,773	
2017	2,963,184	182,030	212,108	229,128	
2018	2,996,802	163,226	222,365	270,762	
2019	2,809,668	168,954	213,721	269,132	
2020[3)]	2,614,946	175,467	204,530	55,986	
2021[3)]	2,618,877	185,281	203,243	52,672	
2022[3)]	2,561,393	191,739	201,349	56,429	
2023[3)]	2,672,261	252,083	212,129	64,222	
2024[3)]	2,726,603	237,071	225,340	60,867	
2025	2,651,686	186,981	222,482	53,122	

Sources : 1. Directorate General of Oil and Gas
2. Special Task Force for Upstream Oil and Gas Business Activities

Note : 1) Includes gas lift & reinjection and net natural gas production
2) Since 2025, natural gas liquids (NGL) has been reclassified from gas to oil. Therefore, gas data exclude NGL
3) Revised data

	Net Natural Gas Production[2)]	LNG Plant (feed)	LPG Plant (feed)[2)]	LNG Production
	(MMSCF)	(MMSCF)	(MMSCF)	(Thousand MMBTU)
	2,674,695	1,025,789	24,801	1,003,747
	2,637,045	1,064,632	24,805	1,064,671
	2,552,026	988,771	22,418	1,011,608
	2,562,814	1,116,888	29,842	1,003,194
	2,371,582	834,243	20,167	865,034
	2,439,479	682,239	19,626	812,385
	2,433,596	665,450	11,509	774,329
	2,369,654	660,367	11,172	789,113
	2,420,178	717,313	9,534	847,890
	2,489,532	777,594	9,863	912,894
	2,464,705	939,351	-	930,492

6.3.3 Gas Utilization

Year	Utilization					
	Gas Fuel	City Gas	Lifting (Secondary Recovery)[1)]	Fertilizer	Electricity	
	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	
2015	1,635	861	99,762	265,986	363,409	
2016	1,310	923	71,201	254,679	368,999	
2017	2,576	1,363	65,660	251,867	338,767	
2018	3,410	1,333	68,907	265,218	302,824	
2019	2,792	2,238	66,280	271,078	306,144	
2020	1,686	2,464	63,214	252,160	249,193	
2021	1,431	3,073	61,240	248,919	248,164	
2022	1,807	4,059	68,547	251,284	226,490	
2023	2,135	5,862	77,902	251,098	253,193	
2024	1,446	5,666	80,344	252,635	258,755	
2025	3,117	4,705	73,715	241,875	268,385	

Sources : 1. Directorate General of Oil and Gas
2. Special Task Force for Upstream Oil and Gas Business Activities

Note : 1) Utilization of Natural Gas to Enchance National Oil and Gas Production based on Minister Energy and Mineral Resources Regulation No. 6 year 2026, Articles 5 and 8
2) Revised data for 2024
3) Revised data from 2020 to 2024

Utilization						
	Refinery[2]	Industry[2]	LNG Domestic	LPG Domestic	Export Pipeline Gas[3]	Export LNG[3]
	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)	(Thousand MMBTU)
	47,384	444,304	113,968	79,501	316,918	811,043
	105,138	433,167	157,473	65,957	294,663	749,171
	50,033	517,799	136,014	52,267	290,435	708,340
	42,322	569,973	147,880	56,325	278,021	696,340
	168,110	414,949	185,511	37,559	269,494	517,205
	175,646	382,163	139,211	47,165	262,493	625,518
	185,311	390,762	174,934	32,138	274,321	570,532
	141,609	442,840	178,678	28,959	219,157	561,746
	137,819	522,510	207,419	29,310	153,961	596,199
	136,594	402,418	254,494	28,230	142,564	607,572
	159,163	353,093	278,046	35,168	152,416	561,012

6.3.4 City Gas Sales and Utilization

Year	Number of Customer			
	Household	Commercial Industry[1)]	Small Customer[2)]	Total
2015	107,690	1,529	1,857	111,076
2016	127,246	1,652	1,929	130,827
2017	192,489	1,490	2,242	196,221
2018	198,075	1,719	1,973	201,767
2019	233,204	1,750	2,114	237,068
2020	279,856	1,760	2,286	283,902
2021	352,928	1,776	2,413	357,117
2022	460,864	1,819	2,452	465,135
2023	574,350	2,563	1,976	578,889
2024	557,784	2,636	2,094	562,514
2025	569,161	2,688	2,260	574,109

Source : PT. PGN (Persero)
Note : 1) Changing names from Industry to Commercial Industry Since 2013
2) Changing category of customer from Commercial to Small Customer Since 2013

6.4.1A Power Plant Installed Capacity

Year	On Grid[1]							
	Hydro PP	Steam PP	Gas PP	Combined Cycle PP	Geothermal PP	Diesel PP[3]	Gas Engine PP	Wind PP
2015	5,068.59	26,447.58	4,495.56	10,293.47	1,438.30	3,824.07	1,101.23	1.46
2016	5,343.59	28,351.97	4,969.24	10,293.47	1,533.30	3,979.40	1,806.99	1.46
2017	5,343.59	30,768.07	4,976.24	10,418.47	1,808.30	4,396.35	2,264.85	1.46
2018	4,461.59	31,587.17	5,348.44	11,220.10	1,948.30	4,630.90	2,357.66	143.03
2019	4,620.52	34,737.17	5,348.44	11,669.54	2,130.70	4,779.68	2,842.03	153.83
2020	4,700.67	36,667.86	5,348.44	12,235.71	2,130.70	4,863.53	3,177.93	153.83
2021	5,050.67	37,036.36	5,348.44	12,411.51	2,286.05	4,986.58	3,218.87	153.83
2022	5,050.67	46,014.26	4,456.74	13,397.82	2,360.33	4,352.09	2,976.47	153.83
2023	4,642.07	49,756.37	4,453.27	16,065.76	2,597.51	4,638.31	2,689.32	151.82
2024	4,929.16	41,245.00	4,228.43	18,297.61	2,638.05	4,380.29	2,655.55	151.82

Year	Off Grid [2]							
	Hydro PP	Micro Hydro PP	Mini Hydro PP	Solar PP + PV[4]	Wind PP	Biomass PP + Bionabati PP	Biogas PP	Coal Gasification PP
2015	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2016	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2017	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
2018	938.00	6.38	n.a	41.05	0.48	1,616.52	68.26	n.a
2019	938.00	6.88	n.a	50.01	0.48	1,616.52	70.26	n.a
2020	938.00	6.88	n.a	55.95	0.48	1,616.52	99.22	n.a
2021	938.00	26.30	n.a	69.75	0.48	1,969.64	112.69	n.a
2022	938.00	25.41	n.a	122.82	0.48	2,767.63	125.30	n.a
2023	968.00	0.00	n.a	313.69	0.48	3,033.15	119.42	n.a
2024	1,118.00	28.86	3.72	493.29	0.48	2,852.36	136.67	220.00

(MW)

On Grid[1)]								Total
Micro Hydro PP	Mini Hydro PP	Solar PP	Coal Gasification PP	Waste PP	Biogas PP	Biomass PP	Other PP	
90.15	148.71	36.94	0.00	15.65	54.72	1,671.29	n.a	54,687.72
95.87	211.40	46.70	0.00	15.65	64.16	1,703.29	n.a	58,416.48
103.76	240.55	54.48	0.00	15.65	100.62	1,740.54	n.a	62,232.93
98.39	267.79	24.42	0.00	15.65	40.35	142.02	n.a	62,285.81
99.49	311.14	105.03	0.00	15.65	42.15	147.02	n.a	67,002.40
99.49	375.84	107.37	0.00	15.65	18.60	150.52	n.a	70,046.14
100.13	486.65	155.29	0.00	28.45	22.10	151.52	n.a	71,436.45
102.27	572.67	190.06	30.00	24.45	24.11	157.42	n.a	79,863.19
51.07	908.50	323.46	250.00	36.47	36.51	167.86	n.a	86,768.29
22.22	954.23	416.14	230.00	36.47	20.58	54.00	18.00	80,277.55

(MW)

Off Grid[2)]								Grand Total On Grid + Off Grid
Hybrid PP	Geothermal PP	Steam PP	Combined Cycle PP	Gas PP	Gas Engine PP	Diesel PP	Sub Total	
n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.00	54,687.72
n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.00	58,416.48
n.a	n.a	n.a	n.a	n.a	n.a	n.a	0.00	62,232.93
3.58	n.a	n.a	n.a	n.a	n.a	n.a	2,674.27	64,960.08
3.58	n.a	n.a	n.a	n.a	n.a	n.a	2,685.73	69,688.13
3.58	n.a	n.a	n.a	n.a	n.a	n.a	2,720.63	72,766.77
3.58	n.a	n.a	n.a	n.a	n.a	n.a	3,120.44	74,556.89
0.00	n.a	n.a	n.a	n.a	n.a	n.a	3,979.64	83,842.83
0.00	n.a	n.a	n.a	n.a	n.a	n.a	4,434.74	91,203.03
0.00	0.71	13,093.84	500.80	249.23	234.27	1,439.00	20,371.23	100,648.77

6.4.1B Power Plant Installed Capacity 2025

Year	PLN[5]							
	Hydro	Mini Hydro	Micro Hydro	Geothermal	Solar Photovoltaic	Wind Turbine	Biogas	
2025[8]	5,254.41	933.24	252.66	2,756.67	518.20	151.43	18.47	

Year	PPU[6]						
	Solar Photovoltaic	Biogas	Biomass	Other	Diesel	Steam	
2025[8]	77.99	2.40	7.00	18.00	110.68	3,063.30	

Year	IUPTLS[7]								
	Hydro	Mini Hydro	Micro Hydro	Geothermal	Solar Photovoltaic	Wind Turbine	Biogas	Biomass	
2025[8]	1,118.00	7.22	28.86	0.71	937.93	0.48	160.91	3,372.46	

Sources : 1. PLN Statistic
2. Electricity Statistics - Directorate General of Electricity
3. Directorat General of New and Renewable Energy and Energy Conservation

Note : 1) On Grid is Including Private Power Utility and Own Use Electricity Supply Business License (IUPTLS)
2) Off Grid means power plant for NRE based outside PLN's electricity interconnection grid
3) Diesel PP including captive power
4) Solar-powered energy saving lamp and solar powered public street lighting included in solar PP
5) PLN Business Category Generator (PLN, Rental, IPP)
6) PPU = Private Power Utility/Generator owned by non-PLN Business Area Holders (including IPP Wilus)
7) IUPTLS = Generators owned for own use
8) Since 2025, there is a change of classification based on power-plant's ownership

(MW)

PLN[5]							Total
Biomass	Waste	Diesel	Steam	Simple Cycle Gas Turbine	Combined Cycle Gas Turbine	Gas Engine	
53.00	35.67	3,954.82	43,658.64	3,725.82	15,505.14	2,073.79	78,891.96

(MW)

PPU[6]				Total
Simple Cycle Gas Turbine	Combined Cycle Gas Turbine	Gas Engine	Coal Gasification	
416.38	1,427.62	316.91	230.00	5,670.28

(MW)

IUPTLS[7]							Total	Grand Total PLN+PPU+ IUPTLS,
Biofuel	Diesel	Steam	Simple Cycle Gas Turbine	Combined Cycle Gas Turbine	Gas Engine	Coal Gasification		
5.00	2,080.57	13,820.20	440.51	500.80	243.00	220.00	22,936.64	107,498.89

6.4.2 Power Plant Production

Year	PLN							
	Hydro PP	Geothermal PP	Solar PP	Diesel PP	Steam PP			
					Coal	Oil	Gas	
2015	10,005	4,392	5	18,859	85,191	11,419	146	
2016	13,886	3,958	9	19,122	92,682	1,092	4,488	
2017	12,425	4,096	6	16,453	101,333	285	4,159	
2018	10,729	4,013	5	15,019	110,035	517	3,846	
2019	9,877	4,110	5	9,053	119,520	126	3,730	
2020	11,949	4,186	6	5,601	113,335	34	1,413	
2021	11,869	4,217	6	6,034	113,488	225	950	
2022	13,175	4,138	9	5,993	114,728	9	288	
2023	10,655	4,311	13	6,482	112,035	76	1,852	
2024	11.656	4.231	14	7.037	114.158	59	2.084	

Sources : 1. PLN Statistics;
2. Electricity Statistics - Directorate General of Electricity; and
3. Directorate General of Newe and Renewable Energy and Energy Conservation

Note : 1) Off grid consist of captive power from PPU, Power Plant financed by State Budget, and Power Plant financed by Non-Governmental including fossil based power plant
2) Change on the format of Solar PP OffGrid Production including PJUTS and LTSHE
3) Hydro PP including Mini Hydro PP and Micro Hydro PP
4) Including generation from Coal Gasification Power Plant
5) Since 2025, there is a change of classification based on power-plant's ownership

(GWh)

PLN									
	Steam PP		Combined Gas-Steam PP	Gas PP	Waste PP	Gas Engine PP	Wind PP	Biomass PP	Sub-Total
	Cofiring/ Biomass	Total							
	-	96,756	39,316	5,907	n,a	1,233	0	0	176,472
	-	98,262	42,377	3,745	n,a	2,451	0	0	183,809
	-	105,778	38,468	4,117	n,a	82	0	0	181,425
	4	114,402	39,017	5,357	n,a	157	0	0	188,698
	0	123,376	37,758	3,213	n,a	6,151	0	0	193,543
	11	114,793	30,098	2,414	n,a	8,646	0	0	177,692
	274	114,937	33,612	2,797	n,a	9,503	0	0	182,974
	599	115,624	33,322	2,147	n,a	9,411	0	0	183,819
	1,042	115,006	36,726	1,652	n,a	9,137	0	0	183,981
	1.673	117.974	38.192	2.839	n.a	9.570	0	0	191.513

6.4.2A Power Plant Production

Year	PLN Electricity Purchase from Captive Power & IPP							
	Hydro PP	Geothermal PP	Solar PP + Rooftop	Diesel PP	Steam PP			
					Coal	Gas	Biomass	Total
2015	3,736	5,656	0	633	39,466	115	461	40,043
2016	4,791	6,698	12	586	42,699	129	584	43,411
2017	6,207	8,668	23	2,110	46,631	263	0	46,894
2018	6,099	10,006	15	2,410	49,978	242	0	50,220
2019	6,669	9,990	49	1,403	54,973	228	0	55,201
2020	7,506	11,377	120	1,129	67,534	19	0	67,553
2021	7,895	11,682	114	389	76,196	0	0	76,196
2022	9,180	12,539	209	87	90,580	0	0	90,580
2023	9,277	12,625	165	0	104,742	0	0	104,742
2024	9,849	12,532	411	0	114,276	0	0	114,276

Year	Off Grid[1)]								Total Off Grid	Grand Total
	Hydro PP	Micro Hydro PP	Mini Hydro PP	Solar PP + Solar PV[2)]	Wind PP	Biomass + Bionabati PP	Biogas PP	Hybrid PP		
2015	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0	233,982
2016	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0	247,918
2017	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	0	254,660
2018	4,785	24	0	71	2	11,325	478	5	16,690	283,776
2019	4,579	36	0	64	2	11,329	492	5	16,507	295,449
2020	4,834	36	0	45	2	11,360	697	5	16,980	291,831
2021	4,814	119	0	72	2	13,803	790	5	19,605	309,076
2022	4,806	134	0	226	2	19,396	878	0	25,442	333,537
2023	4,658	0	0	536	2	21,256	837	0	27,288	350,609
2024	5,633	152	20	927	2	19,989	958	0	27,680	371,572

(GWh)

	PLN Electricity Purchase from Captive Power & IPP							Total On Grid
	Combined Gas-Steam PP	Gas PP	Gas Engine PP	Wind PP	Biomass PP	Biogas PP	Waste PP	
	5,330	2,090	0	4	461	0	19	233,982
	5,832	2,767	0	6	584	0	6	247,918
	5,704	3,002	35	0	534	52	5	254,660
	4,946	3,841	41	188	526	95	1	267,085
	5,396	5,577	266	482	219	126	21	278,942
	4,045	4,028	613	473	195	102	17	274,851
	4,363	4,190	850	435	222	150	11	289,471
	5,153	4,410	1395	354	159	166	44	308,095
	6,888	3,593	1158	479	176	175	61	323,321
	9,507	3,752	1178	465	192	156	60	343,892

Sources : 1. PLN Statistics;
2. Electricity Statistics - Directorate General of Electricity; and
3. Directorate General of Newe and Renewable Energy and Energy Conservation

Note : 1) Off grid consist of captive power from PPU, Power Plant financed by State Budget, and Power Plant financed by Non-Governmental including fossil based power plant
2) Change on the format of Solar PP OffGrid Production including PJUTS and LTSHE
3) Hydro PP including Mini Hydro PP and Micro Hydro PP
4) Including generation from Coal Gasification Power Plant
5) Since 2025, there is a change of classification based on power-plant's ownership

6.4.2B Power Plant Production 2025

Year	PLN								
	Hydro PP[3]	Solar Photovoltaic PP	Geothermal PP	Bio Energy PP	Steam PP	Diesel PP	Gas PP	Sub Total	
2025[5]	13,904	14	4,336	6,031	112,840	9,615	44,230	190,970	

Year	IUPTLS & PPU							Total
	Hydro PP[3]	Solar Photovoltaic PP	Bio Energy PP	Steam PP[4]	Diesel PP	Gas PP	Sub Total	
2025[5]	6,288	1,008	21,331	101,720	751	13,372	144,470	494,353

Sources : 1. PLN Statistics;
2. Electricity Statistics - Directorate General of Electricity; and
3. Directorate General of Newe and Renewable Energy and Energy Conservation

Note : 1) Off grid consist of captive power from PPU, Power Plant financed by State Budget, and Power Plant financed by Non-Governmental including fossil based power plant
2) Change on the format of Solar PP OffGrid Production including PJUTS and LTSHE
3) Hydro PP including Mini Hydro PP and Micro Hydro PP
4) Including generation from Coal Gasification Power Plant
5) Since 2025, there is a change of classification based on power-plant's ownership

(GWh)

	PLN Electricity Purchase from IPP, Captive Power, PPU								
	Hydro PP[3)]	Solar Photovoltaic PP	Geothermal PP	Bio Energy PP	Wind PP	Steam PP	Diesel PP	Gas PP	Sub Total
	10,544	500	13,404	666	382	119,786	1,079	12,552	158,,913

6.4.3 Import of Electricity

(GWh)

Year	Country of Origin	Hydro PP
2015	Malaysia	12.75
2016	Malaysia	692.70
2017	Malaysia	1,119.47
2018	Malaysia	1,495.89
2019	Malaysia	1,683.12
2020[1)]	Malaysia	1,552.98
2021[1)]	Malaysia	982.64
2022[1)]	Malaysia	814.36
2023[1)]	Malaysia	892.91
2024	Malaysia	957.51
2025	Malaysia	963.83

Source : Directorate General of Electricity
Note : Including Serawak Energy Bhd
1) Revised data

6.4.4 Electricity Utilization

Year	PLN's Electricity Sales Per Tariff Segment								
	Household	Commercial	Industry	Street Lighting	Social	Government	Transportation[1)]	Total	
2015	88,682	36,773	64,079	3,448	5,941	3,717	205	202,846	
2016	93,635	39,852	68,145	3,498	6,631	4,022	223	216,004	
2017	94,457	41,459	72,238	3,527	7,095	4,121	236	223,134	
2018	97,832	43,753	76,947	3,627	7,781	4,403	274	234,618	
2019	103,733	46,600	77,879	3,633	8,622	4,750	301	245,518	
2020	112,156	42,527	72,240	3,635	8,098	4,635	292	243,583	
2021	115,370	44,124	80,904	3,545	8,666	4,708	317	257,634	
2022	116,095	50,188	88,483	3,582	10,073	4,995	344	273,761	
2023	122,340	56,726	88,588	3,615	11,496	5,285	386	288,436	
2024	130,433	61,577	92,196	3,528	12,679	5,412	394	306,219	
2025	134,564	65,437	95,103	3,503	13,193	5,359	533	317,692	

Sources : 1. Directorate General of Electricity
2. PLN Statistic (including subholding PT. PLN Batam)
Note : 1) Since 2020, transportation including transaction of EV's charging station

(GWh)

	Non PLN's Electricity Consumption						Grand Total
	Household	Commercial	Industry	Public	Transportation	Total	
	0	26	27,231	2	0	27,259	230,105
	12	47	31,926	6	0	31,991	247,995
	12	47	35,517	10	0	35,585	258,718
	12	50	39,340	11	0	39,412	274,030
	16	56	43,709	12	0	43,793	289,311
	16	57	49,287	11	0	49,371	292,953
	10	62	56,406	10	0	56,489	314,123
	11	70	66,787	13	0	66,881	340,642
	11	75	81,185	13	1	81,286	369,722
	13	81	103,273	14	5	103,386	409,605
	13	82	137,174	15	26	137,309	455,001

6.4.5 Public EV Charging Stations Consumption

(GWh)

Year	Transaction of SPKLU[1)]
2020	0.02
2021	0.07
2022	0.37
2023	2.21
2024	8.35
2025	46.69

Source : Directorate General of Electricity
Note : 1) SPKLU PLN and Partners

6.4.6 Number of EV Charging Station and Public Battery Swapping Station 2025

(Unit)

Province	EV Charging Station	Public Battery Swapping Station
Aceh	36	15
Sumatera Utara	114	140
Sumatera Barat	95	1
Riau	49	13
Kepulauan Riau	5	30
Jambi	25	25
Bengkulu	13	0
Kepulauan Bangka Belitung	33	7
Sumatera Selatan	64	5
Lampung	72	2
Banten	473	327
Jawa Barat	827	390
DKI Jakarta	1,438	588
Jawa Tengah	335	38
DI Yogyakarta	48	34
Jawa Timur	446	98
Bali	197	122
Nusa Tenggara Barat	41	1
Nusa Tenggara Timur	38	1
Kalimantan Barat	55	8
Kalimantan Tengah	25	1
Kalimantan Selatan	53	2
Kalimantan Timur	80	9
Kalimantan Utara	7	0
Sulawesi Utara	32	0
Gorontalo	8	0
Sulawesi Tengah	21	0
Sulawesi Tenggara	13	0
Sulawesi Barat	8	0
Sulawesi Selatan	71	79
Maluku	15	0
Maluku Utara	9	0
Papua Barat	9	0
Papua Barat Daya	0	0
Papua	23	0
Papua Tengah	0	0
Papua Selatan	0	0
Papua Pegunungan	0	0
Total	**4,778**	**1,936**

Source : Directorate General of Electricity

6.4.7 Fuel Consumption of PLN Power Plant

Year	Coal	HSD	IDO	FO	Natural Gas	Biofame
	(ton)	(KL)	(KL)	(KL)	(MMSCF)	(KL)
2015	48,995,169	4,377,068	2,244	904,266	456,494	0
2016	50,556,446	3,719,090	915	947,027	505,125	0
2017	54,711,847	2,879,181	580	718,462	447,072	0
2018	60,481,245	2,780,973	28	946,516	465,419	0
2019	67,008,829	2,011,022	329	639,785	479,776	467,626
2020	66,158,000	1,568,160	26	164,495	334,596	607,569
2021	67,860,420	2,005,335	329	207,762	397,765	643,740
2022	69,876,930	2,072,688	104	190,170	356,832	718,060
2023	69,222,936	2,155,595	799	221,071	417,039	847,487
2024	71,719,964	2,682,044	227	190,671	460,624	990,980
2025	78,406,414	2,844,827	0	218,016	466,995	1,209,475

Source : PLN Statistic

6.4.8 Electricity System Performance

Year	Average Thermal Efficiency[2)]	Capacity Factor[2)]	Load Factor[2)]	Peak Load[2)]	Transmission & Distribution Losses[2)]	Dependable Capacity[3)]
	(%)	(%)	(%)	(MW)	(%)	(MW)
2015	26.92	50.53	80.02	33,381	8.87	40,104
2016	30.33	51.92	62.62	32,204	8.70	43,160
2017	27.02	51.98	74.93	38,797	9.75	45,253
2018	26.62	52.73	75.76	37,944	9.55	47,493
2019	25.84	50.68	76.41	41,671	9.35	51,492
2020	25.48	49.54	78.32	41,761	9.12	53,272
2021	24.69	51.19	77.23	42,785	8.61	55,939
2022	24.54	50.93	84.11	42,814	8.76	60,917
2023	24.35	50.58	63.33	58,282	8.63	65,764
2024[4)]	23.93	51.70	64.05	61,288	8.58	68,219
2025[1)]	22.00	50.53	62.21	65,134	8.25	71,907

Sources : 1. PLN Statistic
2. Directorate General of Electricity

Note : 1) Unaudited data
2) PLN only
3) PLN & IPP
4) Revised data on Transmission & Distribution Losses

6.4.9 Power Plant Installed Capacity by Province 2025

Province Code[1)]	Province	Hydro PP	Mini Hydro PP	Micro Hydro PP	Geothermal PP	Solar PP	Wind PP	Biogas PP	Biomass PP
11	Aceh	10.00	23.40	4.45	-	1.46	-	-	25.10
12	North Sumatera	1,195.55	18.50	183.98	710.54	17.34	-	23.27	374.91
13	West Sumatera	243.00	78.74	1.95	89.25	3.38	-	1.70	81.27
14	Riau	114.00	-	0.06	-	46.71	-	41.26	854.35
15	Jambi	492.00	3.20	1.01	-	1.87	-	6.20	119.08
16	South Sumatera	-	21.01	0.36	213.33	13.57	-	16.16	822.13
17	Bengkulu	277.15	42.77	2.64	-	0.41	-	3.30	15.04
18	Lampung	174.60	33.76	0.11	229.00	7.78	-	3.00	67.18
19	Bangka Belitung Islands	-	-	-	-	2.85	-	13.39	112.72
21	Riau Islands	-	-	-	-	28.09	-	-	2.00
31	Special Capital Region of Jakarta	-	-	-	-	65.33	-	-	-
32	West Java	2,056.60	237.89	4.13	1,260.68	630.85	-	-	-
33	Central Java	229.80	133.23	9.76	72.80	108.61	-	-	24.70
34	Special Region of Yogyakarta	-	-	0.50	-	4.17	-	-	3.80
35	East Java	241.67	55.55	9.74	34.00	177.12	-	2.05	178.64
36	Banten	-	-	15.50	-	91.53	-	-	-
51	Bali	-	2.50	0.03	-	41.60	1.08	-	-
52	West Nusa Tenggara	-	15.20	3.40	-	50.58	-	-	-
53	East Nusa Tenggara	-	4.60	7.28	24.08	24.53	-	-	-
61	West Kalimantan	-	1.32	5.28	-	7.39	-	10.22	146.16
62	Central Kalimantan	-	-	0.77	-	3.12	-	34.25	407.32
63	South Kalimantan	-	30.00	0.09	-	21.22	-	7.70	22.85
64	East Kalimantan	-	-	0.34	-	80.47	-	17.28	101.84
65	North Kalimantan	-	0.04	2.09	-	3.98	-	-	7.31
71	North Sulawesi	-	61.60	1.86	123.72	23.43	0.08	-	-
72	Central Sulawesi	581.00	57.96	5.84	-	1.19	-	-	16.77
73	South Sulawesi	737.00	89.50	3.36	-	14.86	150.75	-	19.00
74	Southeast Sulawesi	-	2.00	3.70	-	3.95	-	-	-
75	Gorontalo	-	14.90	1.67	-	13.21	-	-	1.94
76	West Sulawesi	-	6.00	2.33	-	1.36	-	-	20.20
81	Maluku	-	-	0.12	-	2.96	-	-	-
82	North Maluku	-	-	0.01	-	6.16	-	-	-
91	Papua	20.05	0.06	3.43	-	10.75	-	2.00	1.60
92	West Papua	-	3.13	1.03	-	12.44	-	-	0.55
93	South Papua	-	-	-	-	4.66	-	-	3.50
94	Central Papua	-	-	-	-	2.16	-	-	-
95	Papua Mountains	-	-	4.66	-	0.66	-	-	-
96	Southwest Papua	-	3.60	0.04	-	2.37	-	-	2.50
Total		**6,372.41**	**940.46**	**281.52**	**2,757.38**	**1,534.11**	**151.91**	**181.78**	**3,432.46**

Source : Directorate General of Electricity
Note : 1) Province code refers to the Ministry of Home Affairs

(MW)

	Biofuel PP	Waste PP	Diesel PP	Steam PP	Gas PP	Coal Gasification PP	Combined Gas-Steam PP	Gas Engine PP	Other PP	Total
	-	-	218.94	648.00	-	-	24.00	430.67	-	1,386.01
	-	-	190.44	1,349.00	219.26	-	817.88	34.50	-	5,135.16
	-	-	20.29	432.50	64.50	-	-	-	-	1,016.58
	-	-	195.98	1,504.56	368.20	-	305.00	130.13	-	3,560.24
	-	-	19.26	318.00	100.00	-	-	116.92	-	1,177.54
	-	-	46.84	3,256.44	281.21	-	537.43	36.83	-	5,245.31
	-	-	21.39	200.00	-	-	-	-	-	562.70
	-	-	89.57	467.00	42.85	-	-	-	-	1,114.85
	5.00	0.02	140.45	119.92	125.00	-	-	-	-	519.35
	-	-	397.15	294.00	199.76	-	209.20	291.81	-	1,422.02
	-	-	504.12	400.00	-	-	4,614.07	-	-	5,583.52
	-	14.00	432.01	4,103.30	1,141.65	-	4,725.77	3.48	-	14,610.35
	-	8.00	96.85	10,422.40	55.00	-	1,879.65	-	-	13,040.80
	-	-	8.31	-	-	-	-	-	-	16.78
	-	13.65	209.37	6,965.64	176.43	-	2,837.36	47.55	-	10,948.77
	-	-	165.53	11,436.44	80.60	200.00	859.40	12.25	18.00	12,879.25
	-	-	127.71	380.00	584.53	-	-	199.66	-	1,337.11
	-	-	345.97	418.08	50.00	-	446.80	191.55	-	1,521.58
	-	-	222.94	173.00	-	-	-	119.44	-	575.87
	-	-	323.45	417.00	34.00	-	-	-	-	944.83
	-	-	119.06	389.00	-	-	-	155.68	-	1,109.20
	-	-	151.17	823.00	21.55	-	-	2.47	-	1,080.06
	-	-	293.56	1,032.26	280.68	-	177.00	61.06	-	2,044.49
	-	-	143.21	315.00	-	30.00	-	12.00	-	513.63
	-	-	96.52	336.00	-	-	-	-	-	643.20
	-	-	246.43	5,884.60	66.00	220.00	-	47.13	-	7,126.90
	-	-	224.87	990.00	432.99	-	-	-	-	2,662.33
	-	-	205.02	198.00	25.00	-	-	97.80	-	535.47
	-	-	24.83	176.00	75.00	-	-	-	-	307.55
	-	-	1.77	50.00	-	-	-	-	-	81.66
	-	-	206.34	-	-	-	-	146.79	-	356.22
	-	-	151.72	6,537.00	158.50	-	-	38.72	-	6,892.10
	-	-	91.50	24.00	-	-	-	260.07	-	413.46
	-	-	102.22	68.00	-	-	-	23.56	-	210.92
	-	-	18.38	-	-	-	-	44.78	-	71.32
	-	-	225.53	414.00	-	-	-	42.96	-	684.65
	-	-	14.02	-	-	-	-	-	-	19.34
	-	-	53.36	-	-	-	-	85.90	-	147.77
	5.00	**35.67**	**6,146.07**	**60,542.14**	**4,582.71**	**450.00**	**17,433.56**	**2,633.70**	**18.00**	**107,498.89**

6.5.1 Geothermal Resources and Reserves

as of December 2025

(MW)

Province Code[1)]	Province	Resources		Reserves			Total
		Speculative	Hipotethical	Possible	Probable	Proven	
11	Aceh	324	159	523	25	0	1,031
12	North Sumatera	225	388	613	39	601	1,866
13	West Sumatera	446	598	469	50	85	1,648
14	Riau	45	0	0	0	0	45
15	Jambi	352	87	295	35	10	779
16	South Sumatera	225	230	502	252	241	1,450
17	Bengkulu	134	0	355	149	200	838
18	Lampung	375	28	796	273	260	1,732
19	Bangka Belitung Islands	35	11	0	0	0	46
21	Riau Islands	7	0	0	0	0	7
32	West Java	720	526	1,609	110	1,455	4,420
33	Central Java	141	271	524	130	275	1,341
34	Special Region of Yogyakarta	0	0	10	0	0	10
35	East Java	70	365	770	59	35	1,299
36	Banten	34	161	323	0	0	518
51	Bali	70	21	104	110	30	335

Source : Geological Agency
Note : 1) Province code refers to the Ministry of Home Affairs

6.5.1 Geothermal Resources and Reserves

as of December 2025 (Continued)

(MW)

Province Code[1)]	Province	Resources		Reserves			Total
		Speculative	Hipotethical	Possible	Probable	Proven	
52	West Nusa Tenggara	6	0	11	61	0	78
53	East Nusa Tenggara	273	145	605	138	34	1,195
61	West Kalimantan	65	0	0	0	0	65
63	South Kalimantan	49	1	0	0	0	50
64	East Kalimantan	32	0	0	0	0	32
65	North Kalimantan	20	17	6	0	0	43
71	North Sulawesi	59	51	571	108	150	939
72	Central Sulawesi	391	70	227	0	0	688
73	South Sulawesi	259	112	154	0	0	525
74	Southeast Sulawesi	200	36	80	0	0	316
75	Gorontalo	129	11	20	0	0	160
76	West Sulawesi	163	181	34	0	0	378
81	Maluku	325	73	128	36	2	564
82	North Maluku	190	7	321	133	55	706
92	West Papua	50	0	0	0	0	50
96	Southwest Papua	50	0	0	0	0	50
Total		**5,464**	**3,549**	**9,049**	**1,708**	**3,433**	**23,203**

Source : Geological Agency
Note : 1) Province code refers to the Ministry of Home Affairs

6.5.2 Geothermal Power Plant Capacity 2025

Province Code[1)]	Province	Power Plant	IPB Owner	
12	North Sumatera	PLTP Sibayak	PT Pertamina Geothermal Energy (Persero)	
12	North Sumatera	PLTP Sarulla	PT Pertamina Geothermal Energy (Persero)	
12	North Sumatera	PLTP Sorik Marapi	PT Sorik Marapi Geothermal Power	
13	West Sumatera	PLTP Muaralaboh	PT Supreme Energy Muara Laboh	
16	South Sumatera	PLTP Lumut Balai	PT Pertamina Geothermal Energy (Persero)	
16	South Sumatera	PLTP Rantau Dedap	PT Supreme Energy Rantau Dedap	
18	Lampung	PLTP Ulubelu	PT Pertamina Geothermal Energy (Persero)	
32	West Java	PLTP Kamojang	PT Pertamina Geothermal Energy (Persero)	
32	West Java	PLTP Darajat	PT Pertamina Geothermal Energy (Persero)	

(MW)

	Turbine Capacity	Operator Steam Area	Operator PLTP	Total Capacity
	2 x 5.65 MWe	PT Pertamina Geothermal Energy (Persero)	PT Dizamatra Powerindo	13.30
	2 MWe (Monoblock)		PT PGE	
	1 × 139.205 MWe	KKOB Sarulla Operations, Ltd.	KKOB SO, Ltd.	418.14
	1 × 148.53 MWe			
	1 × 130.4 MWe			
	1 × 68.8 MWe	PT Sorik Marapi Geothermal Power	SMGP	279.10
	1 × 66.65 MWe			
	1 × 62.8 MWe			
	1 × 39.6 MWe			
	1 × 41.25 MWe			
	1 × 89.25 MWe	PT Supreme Energy Muara Laboh	SEML	89.25
	1 × 59.93 MWe	PT Pertamina Geothermal Energy (Persero)	PGE	114.93
	1 × 55 MWe			
	1 × 98.4 MWe	PT Supreme Energy Rantau Dedap	SERD	98.40
	2 × 55 MWe	PT Pertamina Geothermal Energy (Persero)	PLN	229.00
	2 × 59.5 MWe		PGE	
	1 × 30 MWe	PT Pertamina Geothermal Energy (Persero)	Indonesia Power	239.00
	2 × 55 MWe		Indonesia Power	
	1 × 64 MWe		PGE	
	1 × 35 MWe		PGE	
	1 × 55 MWe	KKOB Star Energy Geothermal Darajat II, Ltd.	Indonesia Power	293.21
	1 × 100.71 MWe		KKOB SEGD II, Ltd.	
	1 × 137.5 MWe		KKOB SEGD II, Ltd.	

6.5.2 Geothermal Power Plant Capacity 2025
(continued)

Province Code[1)]	Province	Power Plant	IPB Owner	
32	West Java	PLTP Salak	PT Pertamina Geothermal Energy (Persero)	
32	West Java	PLTP Wayang Windu	PT Pertamina Geothermal Energy (Persero)	
32	West Java	PLTP Patuha	PT Geo Dipa Energi (Persero)	
32	West Java	PLTP Karaha	PT Pertamina Geothermal Energy (Persero)	
33	Central Java	PLTP Dieng	PT Geo Dipa Energi (Persero)	
35	East Java	PLTP Ijen	PT Medco Cahaya Geothermal	
53	East Nusa Tenggara	PLTP Ulumbu	PT PLN (Persero)	
53	East Nusa Tenggara	PLTP Mataloko	PT PLN (Persero)	
53	East Nusa Tenggara	PLTP Sokoria	PT Sokoria Geothermal Indonesia	
71	North Sulawesi	PLTP Lahendong	PT Pertamina Geothermal Energy (Persero)	

Source : Directorate General of New and Renewable Energy and Energy Conservation
Note : 1) Province code refers to the Ministry of Home Affairs

(MW)

	Turbine Capacity	Operator Steam Area	Operator PLTP	Total Capacity
	2 × 60 MWe	KKOB Star Energy Geothermal Salak, Ltd.	Indonesia Power	404.14
	1 × 61 MWe		Indonesia Power	
	2 × 70 MWe		KKOB SEGS, Ltd.	
	1 × 66.99 MWe		KKOB SEGS, Ltd.	
	1 × 16.15 MWe		KKOB SEGS, Ltd.	
	1 × 110 MWe	KKOB Star Energy Geothermal Wayang Windu, Ltd.	KKOB SEGWW, Ltd.	227.00
	1 × 117 MWe			
	1 × 59.88 MWe	PT Geo Dipa Energi (Persero)	GDE	59.88
	1 × 30 MWe	PT Pertamina Geothermal Energy (Persero)	PGE	30.00
	1 × 60 MWe	PT Geo Dipa Energi (Persero)	GDE	72.80
	1 × 12.8 MWe			
	1 x 34 Mwe	PT Medco Cahaya Geothermal	MCG	34.00
	4 × 2.5 MWe	PT PLN (Persero)	PLN	10.00
	1 × 2.5 MWe	PT PLN (Persero)	PLN	2.50
	2 × 3.291 MWe	PT Sokoria Geothermal Indonesia	SGI	11.58
	1 × 5 MWe			
	4 × 20 MWe	PT Pertamina Geothermal Energy (Persero)	PLN	123.71
	2 × 21.5 MWe		PGE	
	1 × 0.71 MWe		PGE	
			Total	**2,749.93**

6.5.3 Geothermal Steam Production

Year	Pertamina Field							KOB Field					PT. PLN (Persero) Field			
	Kamojang	Sibayak	Lahendong	Ulubelu	Karaha	Lumut Balai	Sub Total	Salak	Darajat	Wayang Windu	Sarulla	Sub Total	Ulumbu	Mataloko	Sub Total	
2015	11,974	0	4,693	6,044	0	0	22,711	24,755	13,916	7,850	0	46,521	382	41	423	
2016	12,679	0	3,295	6,718	0	0	22,692	24,575	13,952	13,613	0	52,140	339	0	339	
2017	12,522	0	6,059	10,187	0	0	28,768	24,655	13,871	13,526	4,877	56,929	610	0	610	
2018	14,305	0	5,525	9,923	1,334	0	31,086	24,820	12,722	13,222	13,593	64,356	545	0	545	
2019	13,534	0	6,628	11,290	1,192	193	32,838	22,511	13,055	12,972	11,683	60,221	679	0	679	
2020	13,123	0	6,694	11,753	789	3,138	35,498	22,785	14,224	13,695	11,503	62,207	707	0	707	
2021	13,869	0	6,143	11,733	733	3,252	35,731	23,836	13,929	13,552	12,747	64,064	774	0	774	
2022	13,147	0	6,785	11,192	725	3,191	35,040	23,273	13,903	13,784	13,146	64,105	692	0	692	
2023	13,331	0	7,056	12,143	794	3,385	36,710	24,772	14,110	13,518	11,832	64,232	705	0	705	
2024	14,094	0	7,196	11,782	981	3,508	37,560	24,054	11,964	13,845	11,550	61,413	653	0	653	
2025	14,136	0	6,946	11,645	1,155	5,030	38,912	28,173	14,002	13,182	10,556	65,913	581	0	581	

Source : Directorate General of New and Renewable Energy and Energy Conservation

(Thousand Tonnes Geothermal Steam)

	PT. Geo Dipa Energy Field			PT Sorik Marapi Geothermal Power		PT Supreme Energy			PT Sokoria Geothermal Indonesia		PT Medco Cahaya Geothermal		Total
	Dieng	Patuha	Sub Total	Sorik Marapi	Sub Total	Muara Laboh	Rantau Dadap	Sub Total	Sokoria	Sub Total	Ijen	Sub Total	
	1,770	2,837	4,607	0	0	0	0	0	0	0	0	0	74,263
	1,393	3,153	4,546	0	0	0	0	0	0	0	0	0	79,717
	2,835	2,947	5,782	0	0	0	0	0	0	0	0	0	92,089
	2,511	2,967	5,477	0	0	0	0	0	0	0	0	0	101,465
	2,570	3,003	5,574	649	649	197	0	197	0	0	0	0	100,157
	2,711	3,028	5,739	2,401	2,401	4,366	0	4,366	0	0	0	0	110,917
	2,639	2,994	5,633	3,569	3,569	4,533	338	4,871	0	0	0	0	114,642
	2,515	3,045	5,560	8,196	8,196	4,719	5,051	9,770	223	223	0	0	123,586
	2,564	3,388	5,952	6,071	6,071	4,617	4,376	8,994	355	355	0	0	123,020
	3,226	3,461	6,687	17,278	17,278	4,478	3,812	8,290	622	622	0	0	132,502
	2,553	3,566	6,119	23,142	23,142	4,695	4,311	9,006	581	581	1,635	1,635	145,890

6.6.1 Biofuel Industry Capacity in 2025

(KL)

Province Code[1)]	Province	Biodiesel	Bioethanol
12	North Sumatera	877,011	0
13	West Sumatera	413,793	0
14	Riau	4,810,345	0
18	Lampung	1,488,506	20,000
21	Riau Islands	896,552	0
32	West Java	455,400	0
35	East Java	4,189,081	40,000
36	Banten	1,706,897	0
61	West Kalimantan	1,479,310	0
62	Central Kalimantan	402,299	0
63	South Kalimantan	1,701,725	0
64	East Kalimantan	3,121,408	0
71	North Sulawesi	475,862	0
TOTAL		**22,018,189**	**60,000**

Source : Directorate General of New and Renewable Energy and Energy Conservation
Note : 1) Province code refers to the Ministry of Home Affairs

6.6.2 New and Renewable Energy

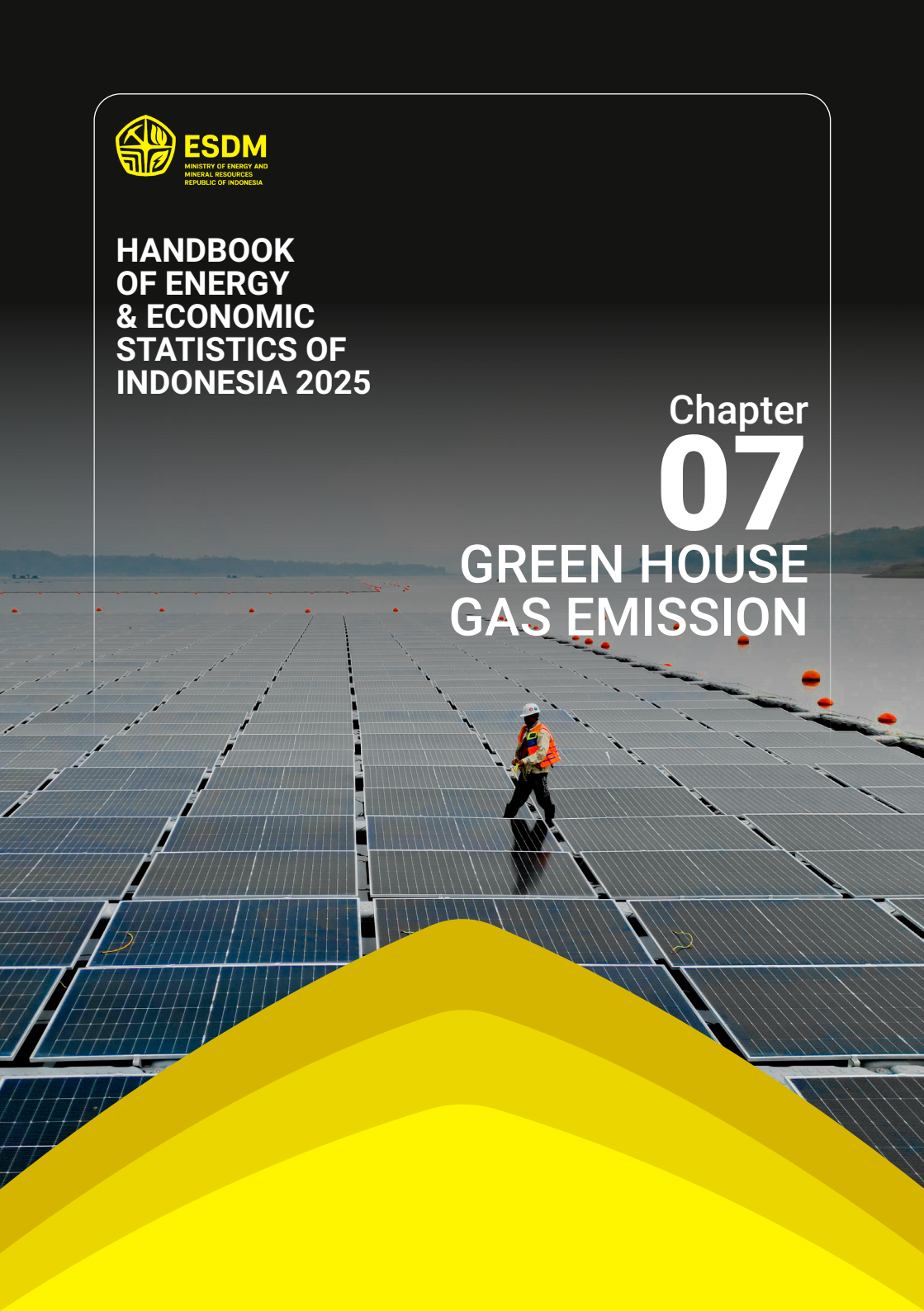
Year	Biodiesel			Biogas	Industrial Biomass	Solar water Heater	Direct Use of Geothermal	Solar-Powered Public Street Lighting
	Production (Thousand KL)	Export (Thousand KL)	Domestic (Thousand KL)	Production (Thousand m^3)	Consumption (Thousand Ton)	Water Heat (Thousand TOE)	Heat (Thermal MWh)	Electricity Production (GWh)
2015	1,620	328	915	18,953	47	62	n.a	n.a
2016	3,656	477	3,008	22,800	72	71	n.a	n.a
2017	3,416	187	2,572	24,786	73	82	n.a	n.a
2018	6,168	1,803	3,750	25,670	133	93	n.a	4.61
2019	8,399	1,319	6,396	26,277	217	104	n.a	5.93
2020	8,594	36	8,400	27,856	258	112	n.a	7.63
2021	10,240	133	9,294	28,390	793	122	n.a	10.53
2022	11,836	372	10,449	57,050	2,351	128	6,195	52.10
2023	13,151	188	12,290	110,793	8,971	261	6,195	51.41
2024	13,929	27	13,158	94,626	20,737	330	6,195	67.46
2025	15,654	0	14,941	103,198	23,811	339	6,195	66.66

Source : Directorate General of New and Renewable Energy and Energy Conservation

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Chapter
07
GREEN HOUSE GAS EMISSION



Green House Gas Emission

Greenhouse Gas Source From Energy Sectors	2015	2016	2017
1. Energy	547,710	528,426	575,196
1.A. Fuel combustion activities	**521,758**	**503,284**	**549,639**
1.A.1. Energy industries	237,474	256,338	268,562
1.A.2. Manufacturing industries and construction	98,964	76,808	82,174
1.A.3. Transport	130,266	121,924	147,944
1.A.4. Other sectors	55,053	48,215	50,959
1.B. Fugitive emissions from fuels	**25,952**	**25,142**	**25,557**
1.B.1. Solid fuels	3,464	3,423	3,461
1.B.2. Oil and natural gas	22,489	21,719	22,096

Note : The calculation results for 2015–2025 have been updated using AR5 GWP
1) Data For 2025 are still in the verivication process from the Ministry of Environtment

(kton CO_2eq)

	2018	2019	2020	2021	2022	2023	2024	2025[1)]
	613,218	655,568	603,763	621,031	738,167	758,993	804,127	829,883
	587,255	**630,426**	**580,814**	**598,359**	**716,676**	**735,114**	**779,816**	**803,463**
	286,902	297,616	306,257	330,578	315,576	307,458	343,374	353,247
	106,616	138,536	106,536	90,492	208,886	231,341	235,947	248,607
	157,923	161,375	134,894	142,979	157,280	161,305	164,441	168,649
	35,814	32,898	33,127	34,311	34,934	35,011	36,054	32,960
	25,962	**25,142**	**22,950**	**22,672**	**21,490**	**23,879**	**24,311**	**26,420**
	4,186	4,624	4,230	4,607	4,244	4,786	5,162	6,134
	21,777	20,519	18,719	18,065	17,246	19,094	19,149	20,285

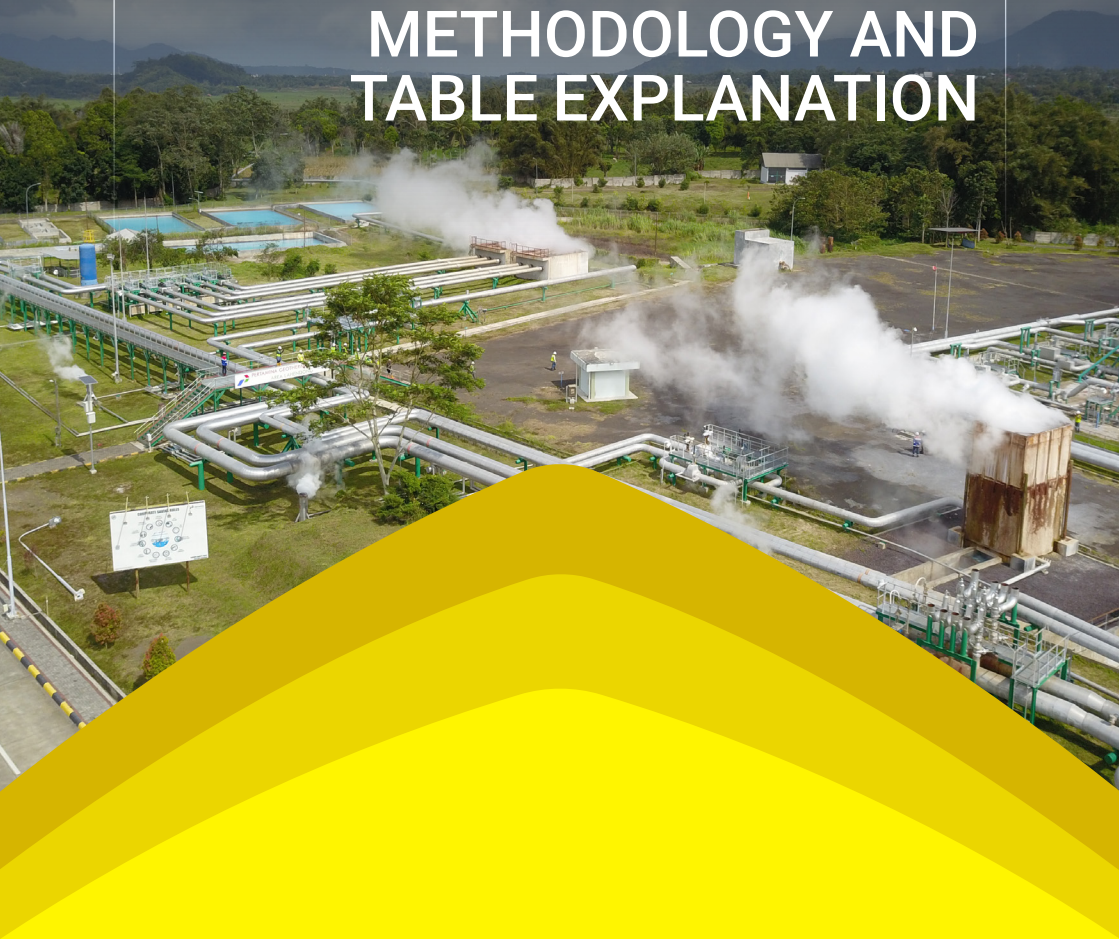
ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Annex

01

METHODOLOGY AND TABLE EXPLANATION



Methodology and Table Explanation

General Methods

Data shown in the tables of Indonesia's energy and economic statistics are consolidated from various statistics of regular publication. The data are harmonized in format and definition as well as cover an estimate of energy demand calculated by using the macro-economic approach. These data are sourced from the statistics published by Statistics Indonesia, technical units within the Ministry of Energy and Mineral Resources, energy companies, energy associations, and some international agencies.

Statistics books used as the sources of the energy and economic data consolidation are as follows:

a. Crude Oil and Oil Products
   Indonesia's Oil and Gas Statistics, Directorate General of Oil and Gas, and Regulatory Body for Oil and Gas Downstream Activity Report
b. Natural Gas (Production, Utilization, and Flaring)
   Indonesia's Oil and Gas Statistics, Directorate General of Oil and Gas, Special Task Force for Upstream Oil and Gas Business Activities Report, and PT PGN Annual Report
c. Coal
   Indonesia's Mineral and Coal Statistics, Directorate General of Mineral and Coal, Indonesia's Mineral, Coal, and Geothermal Resources and Reserves Balance, Geological Agency, and Statistics Indonesia
d. Biomass
   National Survey on Social & Economic Issues (Survei Sosial dan Ekonomi Nasional. SUSENAS) Statistics Indonesia, 1993, 1996, 1999, 2002
e. LPG
   Indonesia's Oil and Gas Statistics, Directorate General of Oil and Gas
f. Electricity
   Statistics of Electricity, Directorate General of Electricity and PLN Statistics
g. General
   Statistics Indonesia, Indonesian Economic and Financial Statistics, Bank Indonesia (www.bi.go.id), World Economic Outlook Database, IMF, and BP Statistical Review of World Energy 2026, Energy Institute
h. Renewable Energy
   Renewable Energy Statistics, Directorate General of New, Renewable Energy, and Energy Conservation and Indonesia's Mineral, Coal, and Geothermal Resources and Reserves Balance, Geological Agency

Table 2: Energy Balance Table

Energy balance table is a table of energy input-output system. The rows indicate the activities of an energy commodity which consist of four main elements, namely primary energy activity, transformation, own use & losses, and energy consumption, while the columns indicate the types of energy. Energy balance is presented to fully depict the energy activities in a region.

Energy Balance Definitions By Column

Each column of the energy balance table represents one type of energy. It begins from the left with renewable energy, followed by solid energy, gaseous energy, liquid energy, and electricity.

Renewable Energy

Hydropower is energy derived from flowing water. Hydropower plants consist of two basic configurations: with dams and reservoirs, or without. Hydropower dams with a large reservoir can store water over short or long periods to meet peak demand. The amount of hydro energy required to generate electricity is equivalent to that of fossil energy to do the same.

Geothermal energy is good energy produced from the magma inside the earth in the volcanic areas. The hot and high pressure steam emitted from the production well head can be utilized to propel the steam turbine in a geothermal power plant or be used directly for drying agriculture products.

Solar power is the conversion of energy from sunlight into electricity, either directly using photovoltaics (PV), indirectly using concentrated solar power, or a combination of both. Concentrated solar power systems use lenses or mirrors and tracking systems to focus a large area of sunlight into a small beam. Photovoltaic cells convert light into an electric current using the photovoltaic effect. The amount of solar energy required to generate electricity is equivalent to that of fossil energy to do the same.

Wind power is the use of air flowing through wind turbines to provide the mechanical power to turn electric generators and, traditionally, to do other work like milling or pumping. Wind power is, as an alternative to burning fossil fuels, plentiful, renewable, widely distributed, and clean. It produces no greenhouse gas emissions during operation, consumes no water, and uses little land. The net effects of wind power on the environment are far less problematic than those of fossil fuel sources. The amount of wind energy required to generate electricity is equivalent to that of fossil energy to do the same.

Other renewables energy is generally used in small-capacity power plants, for example biomass power plants (PLTBm), BioGas power plants (PLTBg), waste power plants (PLTSa), and hybrid power plants. PLTBm is a thermal power plant that uses fuel wood as primary energy, while PLTBg uses oil palm waste and livestock manure as primary energy, and PLTSa uses waste. The amount of other renewable energy required to generate electricity is equivalent to that of fossil energy to do the same.

Solar-powered energy-saving lamp (Lampu Tenaga Surya Hemat Energi/ LTSHE) is a lighting device in the form of integrated lights with batteries whose energy is sourced from photovoltaic solar power plants. The LTSHE works by capturing the energy from the sun in solar panels, converts the solar energy into electrical energy which is then stored in a battery. The electrical energy inside this battery is then used to turn on the lights. Meanwhile, solar- powered street lighting (Penerangan Jalan Umum Tenaga Surya/PJUTS) is a street lighting lamp that uses sunlight as the source of electrical energy.

Traditional Biomass is a renewable, organic material-based fuel. Biomass includes, among others, firewood (wood, wood waste, charcoal), agriculture wastes (rice hulls, rice straw, palm fronds, coconut shell, etc.), urban solid waste, and industrial waste. The data of biomass consumption in the household sector has been calculated based on the approach of the National Socio-Economic Survey (Survei Sosial Ekonomi Nasional/ SUSENAS) and the share of biomass use in the household sector.

Industrial biomass is biological material derived from animals, plants, or algae, such as wood and crops, and organic waste from cities and industries. Wood chips, wood pellets, agricultural and forestry residues, and other solid forms of bioenergy that can be used as raw materials for the industry are examples of industrial biomass.

Solar water heater is a water heater that utilizes sunlight.

Direct utilization of geothermal energy is an activity of exploiting geothermal energy directly without carrying out the process of converting heat and or fluid energy into other types of energy for non-electrical purposes.

Solid Energy

Coal consists of hard coal and lignite. Data on the volume of coal is only available in aggregate number. In the energy balance table, the conversion factor used is the average of Indonesian coal calorific factor (4,276 BOE per Ton Coal). Detailed category and specification of coal available in Indonesia are as follows:

- Hard coal is a type of coal that has a calorific value of more than 5,700 kcal/kg (23.26 MJ/kg). Hard coal consists of steam coal, coking coal, bituminous coal, and anthracite.
- Steam coal is a type of coal that is used in boiler, steam generator and furnace. This category includes anthracite and bituminous coal. Steam coal has a gross calorific value of more than 23,865.0 kJ/kg (5,700 kcal/ kg), lower than that of coking coal.
- Coking coal is a type of coal that is used to produce material that reduces coke in blast furnace. Its gross calorific value is higher than 23,865 kJ/kg (5,700 kcal/kg), ash free. Sub-bituminous coal is a type of coal that has a gross calorific value between 17,435.0 kJ/kg (4,165 kcal/kg) and 23,865.0 kJ/kg (5,700 kcal/kg). Anthracite is a type of coal that has similar characteristics to those of steam coal.
- Lignite is a type of coal that has a gross calorific value of less than 4,165 kcal/kg (17.44 MJ/kg) and volatile matter of more than 31%, dry basis. Lignite is often called low-rank coal or brown coal.
- Coke is the product of high temperature carbonization of steam coal.
  Coke is used as reducing agent in steel plants.
- Briquettes is the fuel produced by briquetting sub-bituminous coal, lignite, or peat through the process of carbonization or powdering. Briquette is more convenient to use and has better quality than its raw materials.

Gaseous Energy

Gaseous energy includes natural gas and town gas. Natural gas generally consists of methane mined from underground accumulation, and associated gas from oil production, as well as coal bed methane. Town gas includes all kinds of gas, such as gas produced from carbonization process, gasification of petroleum oils, and chemical conversion of hydrocarbon fossil fuels.

Greenhouse Gas Emissions
Greenhouse Gas Emissions of the energy sector consist of three activities:

a. Fuel Combustion is a type of GHG emissions generated by combustion process:
   - Energy Industries: emissions are generated by energy producing facilities such as power plants, oil and gas refineries, and coal processing.
   - Manufacturing Industries and Construction: emissions are generated by manufacturing industries, such as the iron and steel industry, smelter industry, cement industry, fertilizer industry, pulp and paper industry, and other processing industries.
   - Transportation: emissions are generated by transportation activities on land, sea, and air.
   - Other Sectors: emissions are generated by activities in other energy sectors.
   - Other Emissions are generated by sources not included in points a-d.

a. Fugitive Emissions are GHG emissions accidentally released in energy production and supply activities:
   - Solid Fuels: fugitive emissions are generated by coal mining activities.
   - Oil, Natural Gas, and Other Emissions from Energy Production: fugitive emissions derived from oil and gas exploration and exploitation activities.

b. CO2 Transportation and Storage Emissions are GHG emissions derived from CO2 transportation, injection, and storage activities in geological formations.

Energy Sector Greenhouse Gas Emissions are calculated by means of activity data multiplied by emission factors. Activity Data is data on human activities related to the amount of GHG Emissions they produce. In the energy sector, activity data consists of the volume of fuel consumption (for fuel combustion) and the volume of fuel production (for fugitive emissions). An emission factor is a coefficient on the amount of emission generated per unit of activity. In calculating Energy Sector Greenhouse Gas Emissions, the emission factors used are the default emission factors from the Intergovernmental Panel on Climate Change (IPCC) (Tier 1) and local emission factors (Tier 2) published by the Indonesian Ministry of Energy and Mineral Resources.

Liquid

Crude oil is a mineral oil consisting of a mixture of hydrocarbons with blackish green color and a range of density and viscosity. It is the raw material for producing oil fuels (Bahan Bakar Minyak/BBM) and petrochemical products.

Condensate is a kind of liquid hydrocarbon which includes Natural Gas Liquid (NGL). NGL consists of ethane, propane, butane, pentane, and natural gasoline.

OIL FUELS/Petroleum Products, (BBM), The energy balance table contains petroleum products used for energy, namely AvGas, Avtur, Mo-gas (Motor gasoline, Gasoil (HSD/ADO), Medium Distillate Fuel (MDF/IDO), Fuel Oil, and Kerosene. Detailed description of each fuel is as follows:

AvGas (aviation gasoline) is aircraft fuel that consists of light hydrocarbons distilling between 100°C and 250°C. The distilled product contains at least 20% of the volume at 143°C.

Avtur is jet aircraft fuel which consists of hydrocarbon middle distillates having similar distillation and flash point characteristics as those of kerosene, with a maximum aromatic content of 20% of the volume. It has a freezing point of less than –47°C and octane number between 80–145 RON.

Mogas (motor gasoline) is a light hydrocarbon used in the internal combustion engine of motorized vehicles (excluding aircrafts). Mogas is distilled at a temperature between 35°C and 215°C and processed in Reformer, Catalytic Cracking, or Blending with aromatic fraction to achieve a high octane number. In the Indonesian markets, three gasoline types are available, namely RON 88, RON 92, and RON 95.

Diesel Oil is a refinery product containing heavy gasoil. This type of fuel is obtained from the lowest fraction of crude oil distilled at atmospheric pressure, while the heavy gasoil is obtained from the vacuum residue of crude oil distilled at atmospheric pressure. On the market, diesel oil is divided into Gasoil CN 48 (Minyak Solar) and Medium Distillate Fuel (MDF) which include Industrial Diesel Oil (IDO/Minyak Diesel).

Fuel Oil (FO) is oil made from the distillation of residue. This type of fuel includes all kinds of residues including those from blending. FO has viscosity of about 10 cSt at SOT. Its flash point is higher than SOT and its density is more than 0.9.

Kerosene is the fuel produced from crude oil distillation having volatility between the volatility of gasoline and that of gasoil. It has a distillation range between 150°C and 300°C, where a minimum of 65% of the volume is distilled at 250°C. It has specific gravity of 0.8 and flash point of over 38°C.

LPG is light hydrocarbon fraction of crude oil, produced at oil refinery, consisting of either propane (C_3H_8) and butane (C_4H_{10}) or a mixture of both. In addition to oil refinery, LPG is also produced from natural gas purification.

Electricity is the electric power generated by various kinds of power plants, such as Hydro Power Plant (Pembangkit Listrik Tenaga Air/PLTA), Geothermal Power Plant (Pembangkit Listrik Tenaga Panas Bumi/PLTP), Solar Power Plant (Pembangkit Listrik Tenaga Surya/PLTS), Wind Power Plant (Pembangkit Listrik Tenaga Bayu/PLTB), Biomass Power Plant (Pembangkit Listrik Tenaga Biomassa/ PLTBm), BioGas Power Plant (Pembangkit Listrik Tenaga BioGas/ PLTBg), Waste Power Plant (Pembangkit Listrik Tenaga Sampah/PLTSa), Gas Power Plant (Pembangkit Listrik Tenaga Gas/PLTG), Gas Steam Power Plant (Pembangkit Listrik Tenaga Gas Uap/PLTGU), Coal Steam Power Plant (Pembangkit Listrik Tenaga Uap/PLTU), and Diesel Power Plant (Pembangkit Listrik Tenaga Diesel/ PLTD), etc. The capacity data displayed in the table is in accordance with those stated in the power plant construction permit.

LNG (Liquefied Natural Gas) is the liquid produced by liquefying natural gas at a temperature of -160T to facilitate its transportation over very long distances.

Total is the sum of all columns in certain row. In the energy transformation row, the total of all columns indicates the efficiency of the transformation process.

Definitions by Row

Total Primary Energy Supply equals domestic production plus import minus export minus bunker and minus/plus stock change. Data on bunker and stock change are not available. Production refers to the total gross primary energy produced (extracted) from the earth. Import refers to the energy obtained from other countries, not including energy in transit. Export refers to the energy sold to other countries.

Domestic supply is defined as indigenous production + from other sources + imports – exports – international marine bunker – international aviation bunker ± stock change. Production is defined as the capture, extraction, or manufacture of fuel or energy in a form that is ready for general use.

Energy Transformation

Transformation refers to the transformation process of primary energy into final energy. Transformation includes the processes in LPG plants, and carbonizing plants. Input has a negative sign while production has a positive sign.

Oil Refining refers to the processing of crude oil and condensate to produce oil fuels such as naphtha, AvGas, Gasoil, MDF, IDO, mogas, kerosene, fuel oil, LPG, etc. The consumption of energy such as natural gas and naphta is also included.

Gas Processing (at LNG plants and LPG plants) refers to the process of liquefaction or purification of natural gas to produce LNG or LPG.

Power Generation is the transformation of energy into electric power. The row records the quantity of consumed fuels (coal, oil fuels, natural gas, hydropower, geothermal power, biomass, wind, photovoltaic (solar energy), BioGas, waste, etc.) and the amount of electricity generated which includes the electricity from on-grid and off-grid systems. The data on electricity production from off-grid power plants are obtained through a data capacity approach. In 2018, data on production and electricity capacity from off-grid power plants emerged as a result of off-grid power plant inventory with the aim of calculating the national energy mix.

Biofuel Blending is the quantity of liquid biofuels which are not delivered for the final consumption but are instead used by other petroleum products as reported in the oil questionnaire.

LNG Regasification is a process of converting Liquefied Natural Gas (LNG) at a temperature of -162°C back to natural gas at atmospheric temperature.

Own Use and Loses

Own Use and Losses include own uses and losses in primary energy production and transformation processes.

- Losses in Production are losses that occur due to transportation, distribution, and transfer by pipe. Own use in Production includes all energy consumed in the field (off-road transportation, genset, boiler, etc.), while all energy consumed in transportation is computed in the Transportation Sector.
- Losses in Oil Refining are losses that occur due to transportation, distribution, and transfer by pipe. Own use in Oil Refining is all energy consumed in the oil refining processes.
- Losses in Gas Processing are losses that occur due to transportation, distribution, and transfer by pipe. Own use in Gas Processing is all energy consumed in the gas processing.
- Losses in Electricity System are losses occurred in transformer, transmission, and distribution network.
- Own use in Electricity Generation is all energy consumed within a power plant area.

Statistical Difference is the difference between net supply (production + import – export – transformation input + transformation production – own use and losses) and total final consumption (household, commercial, industry, and transportation).

Final Energy Consumption

Total Final Energy Consumption is the quantity of energy consumption by household, commerce, industry, and transportation sectors as well as non- energy consumption.

Household consumption refers to all energy consumption by households, excluding consumption by private cars.

Commercial consumption refers to the energy consumption by commercial units such as the markets, hotels, restaurants, financial institutions, government agencies, schools, hospitals, etc.

Industry consumption refers to the energy consumption by the following industrial subsectors (excluding transportation): iron and steel, chemical, non- iron metal, non-metal production, machine and equipment, non-energy mining and quarrying, food, paper, wood, petrochemical, textile, etc.

Transportation consumption refers to the energy consumption by all transportation activities in all economic sectors. Transportation subsectors are air transportation, land transportation (motor-cycles, cars, buses, and trucks), ferries, and railway transportation. The consumption by the fishery, construction, and mining subsectors is also included in the transportation consumption.

Non-energy consumption refers to the energy consumption for non-energy uses, such as hydrocarbons or coal used as lubricating oils or raw materials (naphtha, natural gas, and cokes), and gas used as raw material for petrochemical products (methanol and ammonia/ urea).

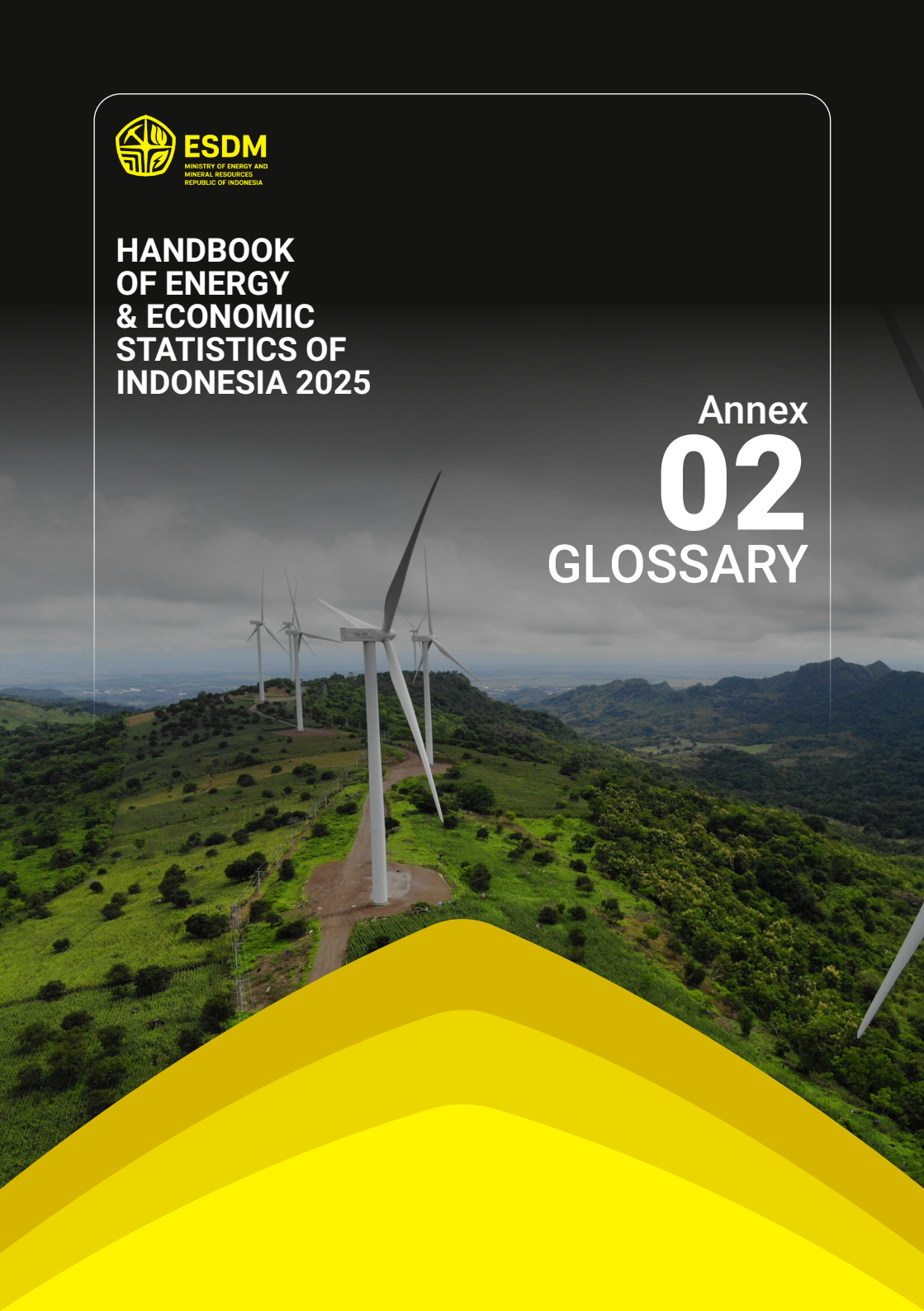
ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Annex

02

GLOSSARY



Glossary

Avgas
Aviation gasoline; special high-octane gasoline for aircraft reciprocating engines; has high stability, low freezing point, and a rather flat distillation curve.

Avtur
Aviation turbine fuel; special fuel for turbine/jet aircraft; special kerosene with a distillation range of 150°C - 250°C.

Biomass
Collective name for firewood, agriculture waste (rice husks, rice stems, palm fronds, coconut shells), black liquor, wood chips, wood barks.

BOE (Barrel Oil Equivalent)
Calorific equivalent of a barrel of crude oil.

Captive Power Plant
A power plant owned by an industry to produce electricity for its own use.

Coal
Sedimentary rocks originated from piles of wood since millions of years ago.

Coal Transformation
Processing of coal (coking coal, steam coal, sub-bituminous coal, and lignite) to produce coke, blast furnace gas, and briquette.

Commercial
A group of energy consumers which uses energy for lighting, air conditioning, mechanical equipment, cooking appliance, and water heating, but not including consumption for vehicles/ transportation. Energy consumers included in this group are commercial and general businesses, such as market, hotel, restaurant, financial institution, government agency, school, hospital, etc.

Condensate
Liquid extracted from natural gas; may be in the form of liquid petroleum gas or natural gasoline.

Conversion Factor
Factors used to convert physical units, such as liter, barrel, ton, and cubic meter, to energy units, such as Joule, BTU, ton coal equivalent (TCE), or barrel or ton oil equivalent (BOE or TCE).

Crude Oil
A mixture of hydrocarbons occurring in liquid phase in the subsurface reservoir and one that remains liquid under atmospheric pressure.

Diesel Oil
A refinery product which contains heavy gasoil, and available as gasoil CN 48 or Medium Distillate Fuel (MDF) and include industrial diesel oil (IDO).

DPPU
Depo Pengisian Bahan Bakar Pesawat Udara (Aircraft Refueling Depot), a depot serving Avgas and avtur for aircraft consumption.

Dependable Capacity
The ability of an electricity generator to supply power to the electric power system calculated based on the installed capacity (name plate) minus the generator's own usage as evidenced by the results of inspections and tests as outlined in the Sertifikat Laik Operasi (SLO).

Electricity
Electric power generated by electric power plants, such as Hydro Power Plant (PLTA), Geothermal Power Plant (PLTP), Solar Power Plant (PLTS), Wind Power Plant (PLTB), Gas Power Plant (PLTG), Gas Steam Power Plant (PLTGU), Coal Steam Power Plant (Coal PLTU), Diesel Power Plant (PLTD), etc. Electricity Utilization comprising both PLN's electricity sales and Non PLN's electricity consumption that including industrial own use.

Energy Balance Table
The energy system's input-output table; the rows indicate the activities of an energy commodity which consists of four main elements, namely primary energy, transformation, own use & losses, and energy consumption. The columns indicate the type of energy commodity.

Final Energy
Energy which can be directly consumed by user.

Final Energy Consumption
Energy consumption of the four sectors of energy consumers, namely household sector, commercial sector, industry sector, and transportation sector as well as the consumption of energy as raw material and reduction agent. In compiling the Energy Planning of Riau, the household sector is combined with the commercial sector due to the limited data obtained.

Final Stock
Total stock at the end of the year.

Fuel Oil
The lowest order of refinery product; heavy distillate, residue, and their mixture which are used as the fuel in industrial furnace and electric power plant.

Gasoil CN 48
A type of diesel oil with Cetane Number 48 used as the fuel for high-speed diesel engine.

Gasoline
(see mogas)

Gas Process
At LNG plant or LPG plant; liquefaction or purification process to produce LNG and LPG.

GDP at Constant Price
Added value of goods and services computed on the basis of prices in a certain year.

GDP, Nominal (based on current price)
Added value of goods and services computed on the basis of prices in each year.

Goods and Services Export
All transfer and sale of goods and services from a resident of a country to a resident of another country, including those conducted in the same country or in another country. Value of goods export is based on FOB.

Government Consumption
Expenditures for employee expenses, depreciation and purchase of goods and services (including travel expenses, maintenance and other routine expenditures), spent by central government or regional governments, but excluding revenue from the production of goods and services.

Greenhouse Gas Emissions
Greenhouse Gas Emissions of the energy sector consist of three activities Fuel Combustion, Fugitive Emissions and CO2 Transportation and Storage Emissions.

Household
A group of energy consumers which uses energy for cooking, lighting, and household appliances, but excluding energy consumption for private cars.

Hydropower
Hydropower is energy derived from flowing water. Hydropower plants consist of two basic configurations: with dams and reservoirs, or without. Hydropower dams with a large reservoir can store water over short or long periods to meet peak demand.

Import
Purchase from other countries, excluding goods in transit.

Industry
A group of energy consumers which uses energy for industrial processes, such as steam boiling, direct heating, lighting, and the driving force of mechanical equipment, but does not include the energy used for electricity generation by industries; such as iron and steel, chemical, non-iron metal, non-metal production, food, paper, wood, construction, textile etc.

Initial Stock
Total stock at the beginning of the year.

International Bunker
The energy consumption for international shipping; supplied to international ships for all ships bearing any flag.

IUPTLS
Izin Usaha Penyediaan Tenaga Listrik untuk Kepentingan Sendiri or Business Permit for Providing Electricity for Own Use (IUPTLS) is an official license required to conduct an electricity supply business for one's own benefit (such as factories, office buildings, or mining), not for sale for the general public.

Kerosene
A type of oil fuel produced from distillation process; its volatility lies between the volatility of motor gasoline (mogas) and that of diesel oil; used as fuel for lighting, kitchen stove, and outboard engine.

Losses in Electricity Generation
Losses that occur in transformer, transmission, and distribution network.

LPG
Liquefied Petroleum Gas; light hydrocarbons from crude oil; produced from oil refinery process or purification process of natural gas; consisting of either propane (C3H8) and butane (C4H10) or a mixture of both.

LNG Regasification
A process of converting Liquefied Natural Gas (LNG) at -162°C temperature back to natural gas at atmospheric temperature.

LSWR
Low Sulphur Waxy Residue; a by-product of oil refining.

Medium Distillate Fuel (MDF)
A type of diesel oil used as fuel in low or medium speed industrial diesel engine (IDO) and marine engine.

Mogas
Motor gasoline; light hydrocarbon oil used in internal combustion engine, except aircraft engine; available in the market as gasoline RON 88, gasoline RON 90, gasoline RON 92, and gasoline RON 95.

Natural Gas
All kinds of hydrocarbon gas produced from wells; a mixture of hydrocarbon gas and vapor occurring naturally which main components are methane, ethane, propane, butane, pentane, and hexane; mined from underground accumulation either directly or as associated gas in oil mining.

Natural Gas Liquid
(see Condensate)

Non-energy Consumption
Non-energy consumption includes consumption of lubricating oil, raw material for petrochemical industry (naphtha, natural gas, and coke), and gas consumed as chemical raw materials (methanol and ammonia/urea).

Non-renewable Energy
Energy which reserves cannot be brought back into original condition; generally consists of fossil energy.

Oil Refinery
Crude oil or condensate processing unit to produce oil fuels, such as naphtha, AvGas, avtur, gasoil CN 48, MDF, mogas, kerosene, fuel oil, LPG, etc.

Other Oil Products (OOP)
Other refinery products, such as naphtha, lubricating oil, bitumen, paraffin, etc. (sulphur, grease).

Own Use and Losses
A category that includes energy losses and the energy used in primary energy production field and in each transformation.

Own Use in Electricity Generation
Own use refers to the amount of energy consumed in power plant and in the transmission and distribution sub-stations.

Own Use and Losses in Gas Processing
Losses that occur due to transportation, distribution, and transfer by pipe. Own use refers to the amount of energy consumed in gas processing.

Own Use and Losses in Oil Refinery
Losses that occur due to transportation, distribution, and transfer by pipe. Own use refers to the amount of energy consumes in oil refinery processes.

Own Use and Losses in Production Field
Losses that occur due to transportation, distribution, and transfer by pipe. Own use refers to the amount of energy consumed in production field.

PLN Power Plant
Electric power plant owned by PT PLN (Persero) to produce electricity for sale to the public.

Primary Energy
Energy in its original form extracted by means of mining, dam, or renewable energy utilization.

Private Sector Power Plant
Power plant owned by private sector to produce electricity for sale to the public. Known as Independent Power Producer (IPP).

Production
Total gross primary energy extracted/produced.

Renewable Energy
Energy which reserve can be brought back into original condition.

SBM
(see BOE)

Secondary Energy
Energy which has undergone transformation process into other form of energy.

SPBU
Stasiun Pengisian BBM Umum, public oil fuel refueling station, which sells gasoline (RON 88, RON 90, RON 92, and RON 95) and gasoil (CN 48).

Solar-Powered Energy Saving Lamp
A lighting device in the form of integrated lights with batteries whose energy is sourced from photovoltaic solar power plants.

Solar-Powered Street Lighting
A street lighting lamp that uses sunlight as a source of electrical energy.

Statistical Difference
Difference between net supply (production + import – export – international bunker – stock change – consumption for transformation + production from transformation – own use – losses) and total final consumption.

Stock Change
Difference between the stock in the beginning and at the end of the year. Stock decrease in energy balance is shown by positive sign which means there is an increase in supply, while stock increase is shown by negative sign which means there is a decrease in supply.

Sub-bituminous coal
A type of coal which has calorific value of 5,000–6,000 kcal/kg.

Total Energy Balance
Total of all columns in a certain row. In transformation row, the total of columns indicates efficiency of the transformation process.

Total Final Energy Consumption
Sum of energy consumption in the following sectors: household, commercial, industry, transportation, and non-energy consumption.

Total Primary Energy Supply
Local production plus import less export less bunker and less or plus stock change.

Transportation
A group of energy consumers which uses energy for transportation

ESDM
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

HANDBOOK OF ENERGY & ECONOMIC STATISTICS OF INDONESIA 2025

Annex 03 CONVERSION FACTOR

Conversion Factor

Energy	Original Unit	Multiplier Factor to BOE (Barrel Oil Equivalent)
Coal		
Anthracite	Ton	4.9893
Imported Coal	Ton	4.2766
Kalimantan Coal[1)]	Ton	4.2000
Ombilin Coal	Ton	4.8452
Tanjung Enim Coal	Ton	3.7778
Lignite	Ton	3.0649
Riau Peat	Ton	2.5452
Briquette	Ton	3.5638
Average Coal	Ton	3.4554
Biomass		
Charcoal	Ton	4.9713
Firewood	Ton	2.2979
Natural Gas	MSCF	0.1796
Gas Products		
City Gas	Thousand KCal	0.0007
CNG	Thousand KCal	0.0007
LNG	Ton	8.0532
LNG	MMBTU	0.1796
LPG	Ton	8.5246
Oil		
Condensate	Barrel	0.9545
Crude Oil	Barrel	1.0000
Oil Fuel		
Aviation Gasoil (Avgas)	Kilo Liter	5.5530
Aviation Turbine Gas (Avtur)	Kilo Liter	5.8907
Super TT	Kilo Liter	5.8275
Premix	Kilo Liter	5.8275
Premium	Kilo Liter	5.8275
Kerosene	Kilo Liter	5.9274
Gasoil	Kilo Liter	6.4871
MDF	Kilo Liter	6.6078
FO	Kilo Liter	6.9612
Oil Products		
Other Oil Products	Barrel	1.0200
Refinery Fuel		
Refinery Fuel Gas (RFG)	Barrel	1.6728
Refinery Fuel Oil (RFO)	Barrel	1.1236
Feed Stock	Barrel	1.0423
Electric Power	MWh	0.6130

Source : Energy Balance 1990-1994. Department of Mining and Energy
Note : 1) Before 2023, using Kalimantan Coal as multiplier factor to BOE.
After that, using Average Coal as multiplier factor to BOE.

Ministry of Energy and Mineral Resources
Republic of Indonesia
Jl. Medan Merdeka Selatan No. 18
Jakarta Pusat 10110
Phone : 021 21390445
Facsimile : 021 3507210
Email : tu.pusdatin@esdm.go.id
Website : www.esdm.go.id

ISSN 2538-3464

www.esdm.go.id kesdm