

# ASEANのエネルギー分野の 現状・関連動向に係る調査 － 定点調査業務2025

報告書－インドネシア



新エネルギー・産業技術総合開発機構  
New Energy and Industrial Technology Development Organization

**ARTHUR LITTLE**

# 調査項目

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6. 発電所

7. 電力品質

8. 送電網


9. 電気料金

10. 電力需給状況

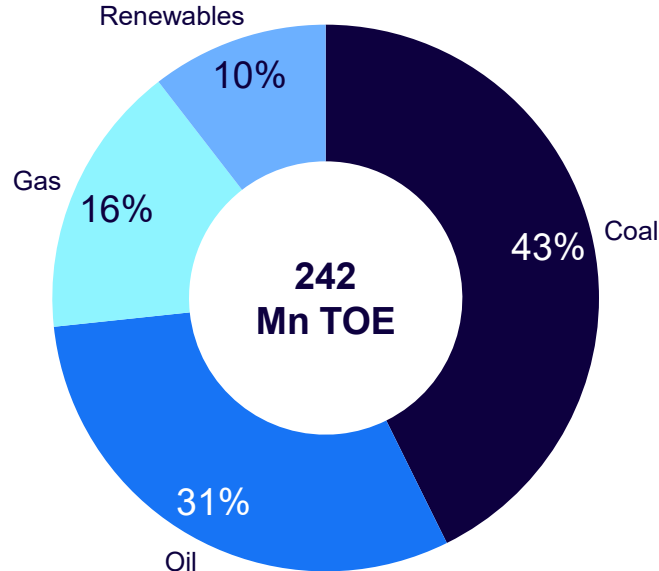
インドネシアの一次エネルギー消費は2023年に10.1EJで、その大部分を石炭（43%）と石油（31%）が占めている一方、近年は天然ガスや再エネも年率10%以上で拡大している

### Primary energy consumption

2023, Mn TOE<sup>1</sup>




Indonesia's primary energy demand in 2023 is 10.12 Exajoules, which comes mainly from fossil fuels (74%), especially coal at 4.32 EJ and oil 3.1 EJ

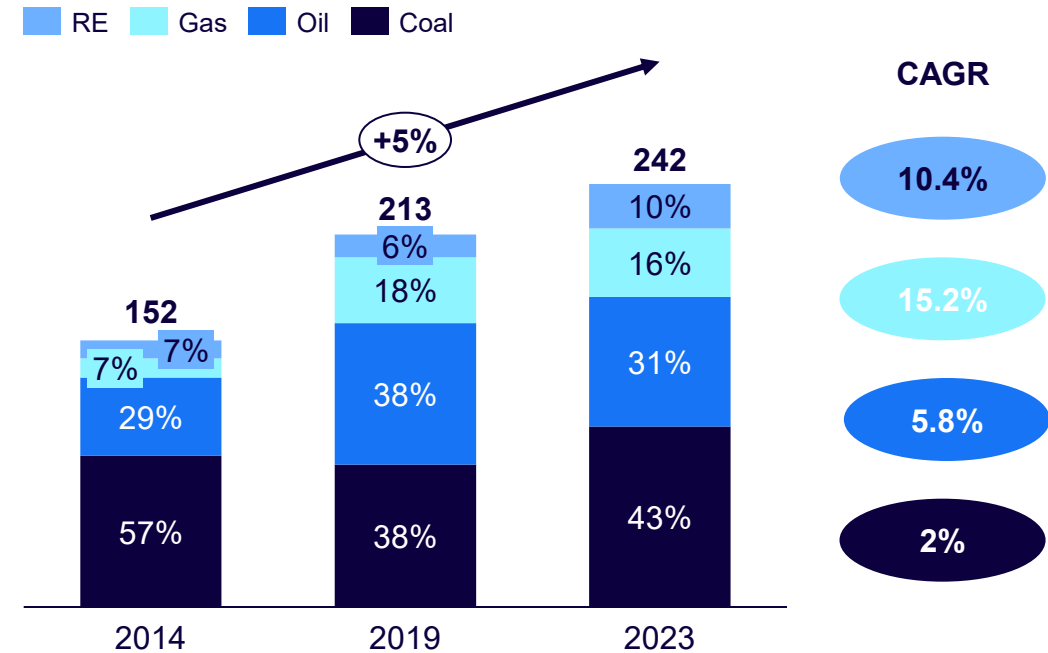


### Historical primary energy consumption

2014 – 2023, Mn TOE



Indonesia has developed an over-reliance on coal to meet its energy needs with a YOY growth at 2%. However, with 2060 Net Zero goals, renewable energy has been growing exponentially at a rate of 10.4%



Note: 1) TOE: Tonne of Oil Equivalent  
Source: BP Statistical Review of World Energy 2014,2019, 2023, Arthur D. Little analysis

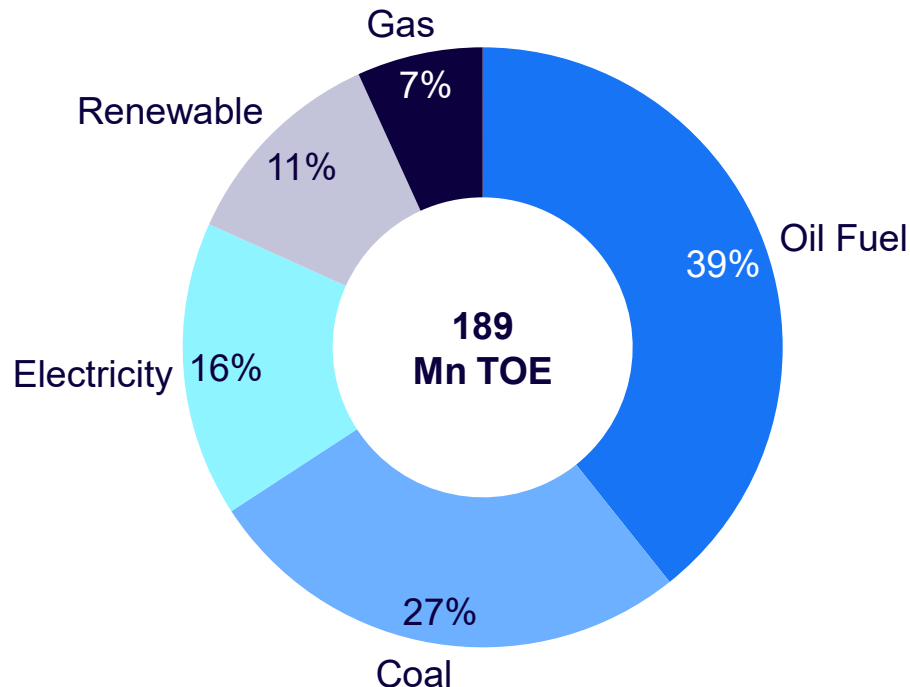
# インドネシアの最終エネルギー消費は2024年に12.9億BOEで、その中心は石油と石炭であり、消費の大部分を産業と運輸部門が占めている

## Final energy consumption

2024, Mn TOE<sup>1</sup>



The final energy consumption was 189 mn TOE, with oil dominating at 39% followed by coal at 27%. The reason for the drop of coal dominance from primary to final energy consumption is due to a large portion being used in the energy transformation process

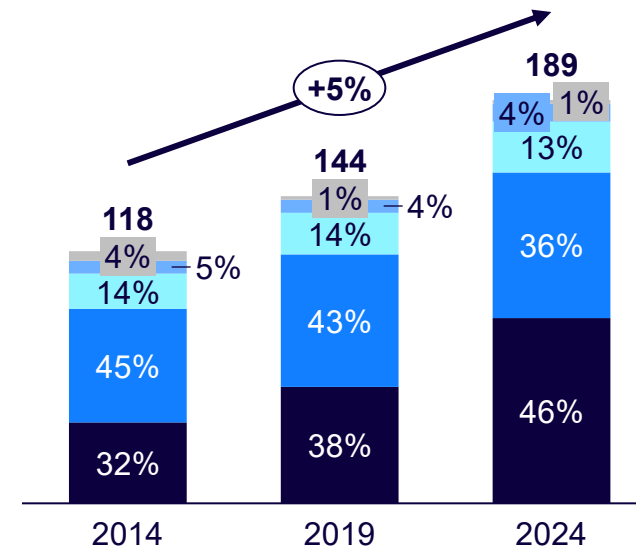


## Final energy consumption, by sector

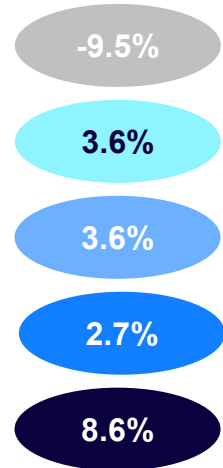
2014 – 2024, Mn TOE



The transport and industrial sectors consistently account for over 75% of energy consumption, reaching 82% in 2024, driven by an 8.6% surge in industrial demand. This growth is fueled by increased coal use in smelters as part of downstreaming agenda

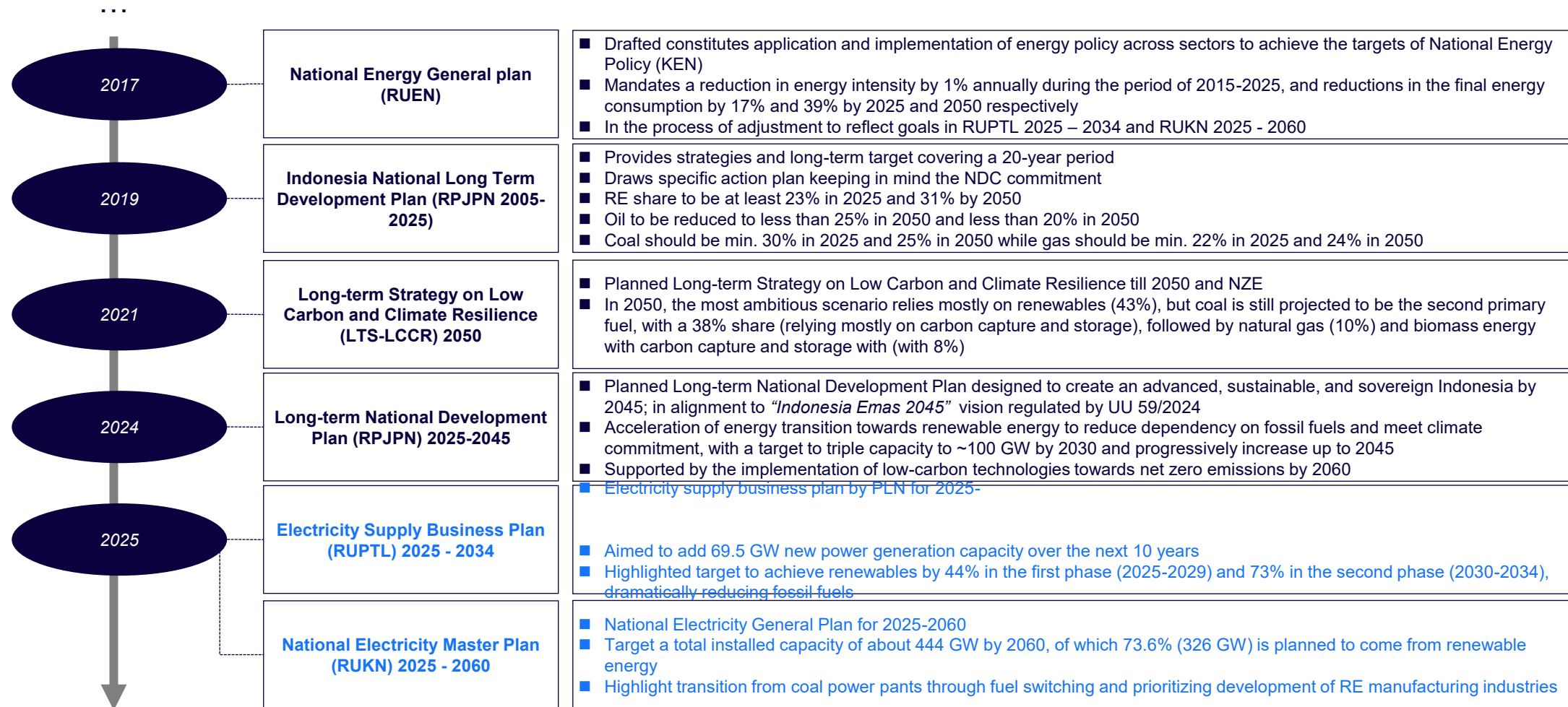


### CAGR



Note: 1) TOE: Tonne of Oil Equivalent; 2) Others is comprised of undefined sectors  
Source: MEMR Statistical Handbook 2024, Arthur D. Little analysis

# インドネシアは国家電力総合計画や長期戦略に基づき、2再エネ比率の拡大石油依存度の低減や石炭比率の縮小を進めつつ、2060年ネットゼロに向けた移行を計画



Note: 1) Indonesia defined BAU as emission levels based on 2010 levels assuming no change policy and based on this direction calculated emission for milestone years  
 Source: Arthur D. Little analysis, Secondary Research, Perusahaan Listrik Negara 2021, Ministry of Energy and Mineral Resources 2025, Indonesia Emas 2045

# インドネシアは2023年改訂のRUPTL計画に基づき、2025～2034年に52.8GWの電源開発を進め、そのうち約52%を再エネとし、2038年までに再エネ比率34%を目指している

## Overview of RUPTL plan

RUPTL

TIMING

2025 – 2034

OVERALL

National electricity business plan launched by PLN (state-owned utility company), to help support the **government objectives to achieve 34% share of renewable energy (RE) in energy mix by 2038** and achieve net-zero by 2060

KEY NOTES

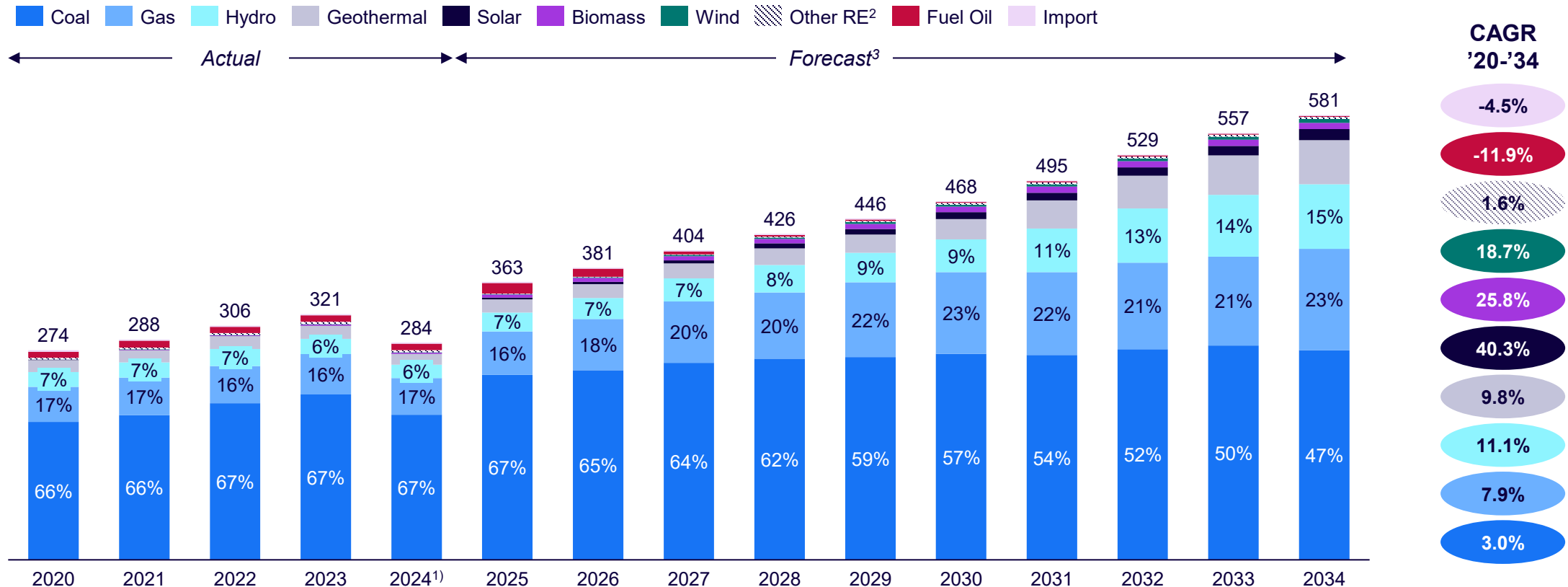
- PLN's 10-year business plan for the development of power projects, including power generation, distribution and transmission projects development.
- RE account for **51.9% of 52.8 GW of power generation projects to be developed (under RE base scenario) with 22.5% hydro, 13.5% solar, 9.8% biomass, 4.2% wind, and other RE 1.8% (i.e., biomass, municipal waste, biogas, sea current)**
- Independent power producers (IPPs) given larger share from PLN (**70% of new capacity plan**)
- IDR 278.0 trillion per annum (IDR 56.7 trillion by PLN, and IDR 156.6 trillion by IPPs)** of investment needed for new infrastructure, excluding investment requirements for maintenance
- Currently in the pilot process of biomass co-firing at 5% and in order to achieve a 10-20% state, additional tests and new investments will be required<sup>1</sup>**
- Transmissions, distribution, smart grid, EV and rooftop solar infrastructure to be built

Note: 1) Restated from previous 2023 RUPTL, where the goal was 30%  
 Source: RUPTL 2025-2034, Arthur D. Little analysis

# インドネシアの電力は2024年時点で石炭が67%と圧倒的に多く、今後も支配的な電源であり続ける一方、水力・地熱・太陽光など再エネ比率は徐々に拡大すると見込まれている

## Electricity generation mix

2020-2034<sup>1</sup>, TWh



Note: 1) Generation data for 2024 covers only up to October; 2) Other RE includes biofuel, waste, and unspecified sources as defined in the RUPTL 2025–2034 document; 3) Forecast figures are based on the “Renewable Energy Base” scenario outlined in the RUPTL 2025–2034  
 Source: RUPTL 2025-2034; Arthur D. Little analysis

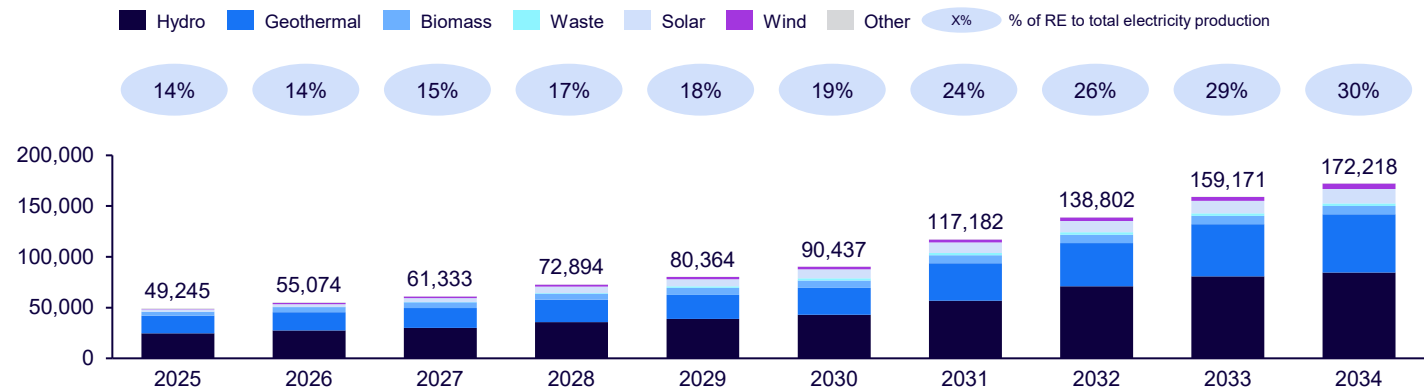
# インドネシアは再生可能エネルギー目標達成に向け、特に太陽光発電の導入拡大を重視しており、RUPTL計画では2034年に再エネ比率30%を目指している

## Renewable energy policy

- **Enhanced NDC (2022):** 32% reduction in emissions against BAU forecast by 2030, and up to 43% with international support
- **Presidential Regulation No. 112/2022:** PLN to be compensated if development of new RE capacity increases its average costs
- **MEMR 18/2019:** PLN plans the development and R&D of new and RE (EBT). PLN must operate PP that use RE sources with capacity up to 10MW
- **MEMR 5/2025:** Standard PPA guideline for all RE projects
- **RUKN:** Encourage coal PP to become more flexible to meet energy mix goals
- **National EV programme for Road Transportation (2019):** Target of 20% EV domestic sales by 2025, 0.6mn electric cars two and 2.5mn electric 2-wheelers by 2030
- **B40 Bio Diesel Mandate:** Aim to blend 40% bi-diesel into transport fuel to cut petroleum imports and CO2 emissions

## National renewable energy goals<sup>1</sup>

2025 – 2034, GWh



## Renewable energy power plant development Plan (MW)

No	Name/Type	Unit	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Geothermal	MW	133	95	305	346	71	564	1,265	573	1,805	-
2	Hydro	MW	754	592	439	823	588	944	3,421	2,194	1,410	725
3	Solar	MW	777	288	965	1,041	470	987	336	286	907	1,085
4	Wind	MW	-	350	122	185	103	190	165	272	420	400
5	Other RE	MW	15	21	13	258	307	278	24	25	32	-
<b>Total</b>		<b>MW</b>	<b>1,679</b>	<b>1,346</b>	<b>1,844</b>	<b>2,653</b>	<b>1,539</b>	<b>2,963</b>	<b>5,211</b>	<b>3,350</b>	<b>4,575</b>	<b>2,210</b>

Note: 1) Based on "Renewable Energy Base" scenario on RUPTL 2025-2034

Source: RUPTL 2021 – 2030, World Bank Climate and Development Report 2023, Arthur D. Little analysis

## 再生可能エネルギーの規制・法律 (1/4)

### REGULATION ABOUT RENEWABLE ENERGY (1/4)



#	Policy	Year	Status	Jurisdiction
1	2025 national budget - renewables development	2025	In force	National
2	Increase in 2025 electricity access enhancement budget	2023	In force	National
3	Minister of Finance Order No.38 2023 on VAT reduction for Battery Electric Vehicle	2023	In force	National
4	Subsidies for Battery Electric Vehicle	2023	In force	National
5	2021-2023 Energy subsidies	2021	Expired	National
6	Permen ESDM 35/2021 - Procedure for Determination and Bid of Oil and Gas Working Areas	2021	Expired	National
7	National Economic Recovery programme (GR 23/2020)	2020	Expired	National
8	Incentives for biodiesel	2020	In force	National
9	Provision of Electric Charging Infrastructure for Battery Based Electric Motor Vehicles	2020	In force	National
10	Regulation 65/2020 on the Conversion of Gasoline Motorcycles into Battery-Based Electric Motorcycles	2019	Revoked	National
11	Utilisation of Rooftop Solar Power Generation System by Customers of PT Perusahaan Listrik Negara (Persero)	2019	Revoked	National
12	Energy Efficiency Awareness Raising	2017	In force	National
13	General Plan for National Energy (Presidential Regulation No.22 Year 2017)	2017	In force	National
14	Renewable Energy Purchase Policy 2017	2017	Ended	National
15	Utilization and Selling Price of Gas Flaring in Upstream Oil and Gas Business Activities	2017	In force	National
16	Electricity Supply Business Plan (Rencana Umum Penyediaan Tenaga Listrik – “RUPTL”) 2016-2025	2016	In force	National
17	Indonesia geothermal auctions 2016	2016	In force	National

## 再生可能エネルギーの規制・法律 (2/4)

### REGULATION ABOUT RENEWABLE ENERGY (2/4)



#	Policy	Year	Status	Jurisdiction
18	Solar Feed-In Tariff of Indonesia (2016)	2016	Ended	National
19	Ceiling Price for Geothermal (Ministerial Regulation No. 17/2014)	2014	In force	National
20	New Geothermal Law (No. 21/2014)	2014	In force	National
21	Biofuel Blending (Ministry Regulation No. 25/2013)	2013	In force	National
22	Feed-in-Tariffs for Biomass (Ministerial Regulation No. 19/2013)	2013	Ended	National
23	Power purchase from solar photovoltaic plants (No. 17/2013)	2013	Ended	National
24	Clean Technology Fund	2012	In force	National
25	Electricity Purchase from Small and Medium Scale Renewable Energy and Excess Power (No. 4/2012)	2012	In force	National
26	Energy Management Regulation (Minister of Energy and Mineral Resources, No. 14/2012)	2012	In force	National
27	Geothermal Fund (Ministry of Finance Regulation No. 3/2012)	2012	In force	National
28	National Energy Efficiency Award	2012	In force	National
29	Prototyping of Electric Buses and City Cars	2012	In force	National
30	National Action Plan for Reducing Greenhouse Gas Emissions	2011	In force	National
31	Purchase of Electricity from Geothermal Plants (Regulation No. 02/2011)	2011	In force	National
32	Tax exemption on goods for geothermal exploration (No. 22/PMK.011/2011)	2011	Ended	National
33	Income tax reduction for energy development projects (MoF Regulation No. 21/2010)	2010	In force	National
34	Indonesia Value-Added Tax and Import Duty Exemption For Renewable Energy Property	2010	In force	National
35	Biofuel Supply, Utilization and Trading (Ministerial Regulation No. 32/2008)	2009	Ended	National

## 再生可能エネルギーの規制・法律 (3/4)

### REGULATION ABOUT RENEWABLE ENERGY (3/4)



#	Policy	Year	Status	Jurisdiction
36	Electricity Law (No. 30/2009)	2009	In force	National
37	Energy Conservation (Government Regulation No. 70/2009)	2009	In force	National
38	Energy Efficiency Labeling programme	2009	In force	National
39	Minister of Environment Decree No. 13/2009: Emission Standards for Stationary Sources of Oil and Gas Industry Activities	2009	In force	National
40	Tariffs for Small and Medium Scale Power Generation using Renewable Energy (No. 31/2009)	2009	Ended	National
41	Minister of Energy and Mineral Resources No. 36 of 2008 - Coal Bed Methane Commercial Utilisation	2008	In force	National
42	Energy Law No. 30/2007	2007	In force	National
43	Geothermal Business Activities (Government Regulation No. 59/2007; 70/2010)	2007	In force	National
44	Development credits for biofuels and plantation revitalisation (MoF Regulations No. 117/2006; No. 79/2007)	2006	In force	National
45	Medium-Scale Power Generation using Renewable Energy (Ministerial Regulation No. 2/2006)	2006	In force	National
46	National Team for Biofuel Development and Biofuel Roadmap (Decree No. 10/2006)	2006	In force	National
47	Provision and Utilization of Biofuel (Presidential Instruction No. 1/2006)	2006	In force	National
48	Blueprint of National Energy Management (2005-2025)	2005	In force	National
49	National Master Plan for Energy Conservation	2005	In force	National
50	Presidential Instruction on Water and Energy Savings (10/2005; 2/2008; 13/2011)	2005	In force	National
51	Green Energy Policy (Ministerial Decree No. 2/2004)	2004	In force	National
52	Old Geothermal Law (No. 27/2003)	2003	Ended	National
53	Small Distributed Power Generation Using Renewable Energy (Ministerial Regulation No. 1122 K/30/MEM/2002)	2002	In force	National
54	Law No. 22/2001 Petroleum and Natural Gas	2001	In force	National

## 再生可能エネルギーの規制・法律 (4/4)

### REGULATION ABOUT RENEWABLE ENERGY (4/4)



#	Policy	Year	Status	Jurisdiction
55	Biomass co-firing in coal plants (Ministry of Energy and Resources Regulation 12/2023)	2023	In force	National
56	Grants for motorcycle conversion programme (Ministry of Energy and Resources Regulation 13/2023)	2023	In force	National
57	Registration and inception of ICE to EV motorcycle conversions (Ministry of Transportation 39/2023) <sup>1</sup>	2023	In force	National
58	Amendment for acceleration of battery EV programme for road transportation (Presidential Regulation 79/2023)	2023	In force	National
59	New rooftop solar regulation (Ministry of Energy and Resources Regulation 2/2024)	2024	In force	National
60	0% import duty for EV motorcycle to support nation's target towards zero-emission (PMK 10/2024)	2024	In force	National
61	Domestic content requirements for power generation (Ministry of Energy and Resources Regulation 1/2024)	2024	In force	National
62	B40 Biodiesel target	2025	In force	National
63	Bill on energy and renewable energy (2022; draft for 2025 is in progress)	2022	-	National

## エネルギー分野はMEMRを中心に関係省庁が政策・許認可・財政支援等を担い、国有企業のPLN（電力）・PGN（ガス）・Geo Dipa（地熱）が実行する構図

Category	Name	Function
Government branch	Indonesia Investment Authority (INA)	Indonesia's SWF. Invests in green infrastructure. 2023: Made its first green energy investment (undisclosed sum) in Pertamina Geothermal Energy's (PGE) initial public offering
	<b>Ministry of Energy and Mineral Resources (MEMR)</b>	<b>Main Government institution in-charge of energy policy</b>
	Ministry of Environment and Forestry (MOEF)	WRT <sup>1</sup> to RE, MOEF is in-charge of making policy for and supervising, among other things, forest utilization area permits and other relevant approvals for development in forest and other protected areas
	Ministry of Industry (MOI)	In-charge of making policy for and supervising mandated local content requirements that apply for renewable energy projects
	Ministry of Public Works and Housing ("MPWH")	WRT <sup>1</sup> to RE, in-charge of overseeing the construction work policy and supervision. Hydro and floating solar PPs fall under MPWH's authority
	Ministry of Finance ("MOF")	In-charge of country's budget, subsidies and other fiscal incentives
GLC	PT Perusahaan Listrik Negara (Persero) ("PLN")	State-owned electricity company, manages electricity projects. PLN runs the electricity business from power generation and power transmission to the distribution and sale of electricity.
	PT Perusahaan Gas Negara Tbk ("PGN")	State-owned gas company, responsible of ensuring reliable and efficient supply and distribution of natural gas to various sectors in Indonesia (household to industry)
	PT Geo Dipa Energi	Operator of geothermal power assets and fields; responsible in exploring, developing, and producing geothermal steam and electricity
Financial institutions	Commercial banks, Development financing institutions and local infrastructure financial institutions	Some have specially-catered green financing platforms for RE projects. End 2021: 13 banks have joined the Indonesia sustainable financial initiative (IKBI) and have disbursed USD 200M total
Contractors	Contractors	Have the licenses required to carry out Engineering, Procurement and Construction ("EPC") or Operation and Maintenance ("O&M") work for power plants

Note: 1) With respect to

Source: Indonesia Ministry of Energy and Mineral Resources Statistical Handbook 2024, Secondary Resources, Arthur D. Little analysis

# 大統領直轄の監督委員会が上流担当のSKK Migasと下流規制のBPH Migasを統制・監督し、国内O&G供給の最大化に向け協働させる体制

## Government body and Ministries responsible of O&G

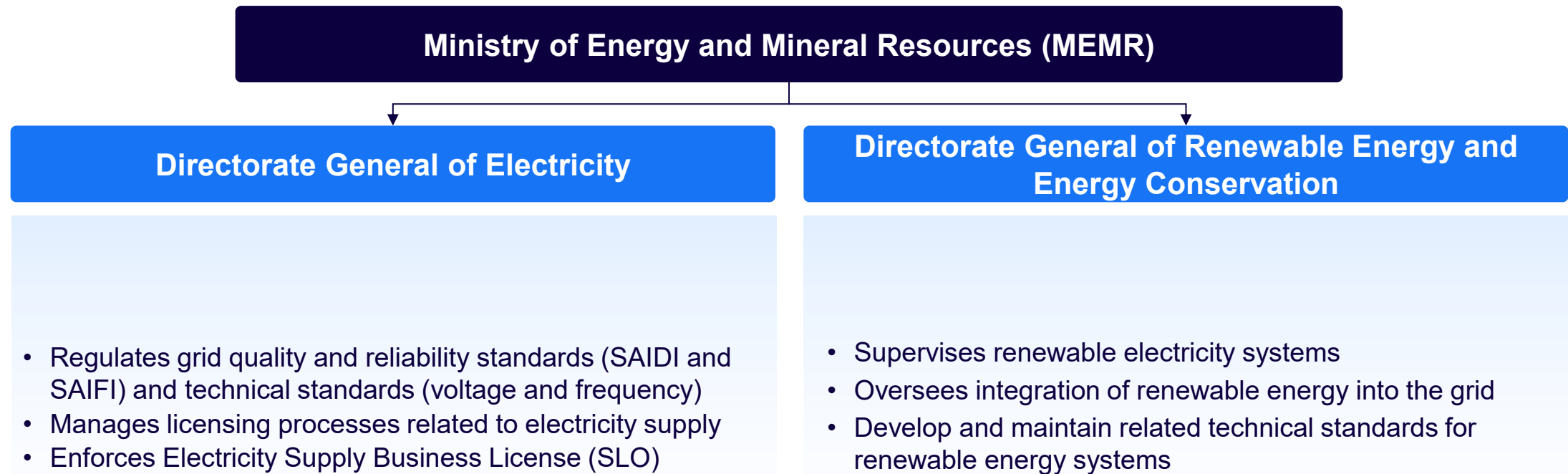


Note: 1) Presidential Regulation, Ministry of Energy and Mineral Resources (MEMR); 2) National Police has had an MoU with SKK Migas and BPH Migas since 2013 on Security Assistance and Law Enforcement

Source: BPK RI 2025, Arthur D. Little analysis

エネルギー・鉱物資源省（MEMR）の下で、電力総局は送電網の品質や供給ライセンスを管轄し、再エネ・省エネ総局は再エネシステムの監督や送電網への統合等を担っている

### Entities with Direct Responsibilities to Electricity Quality



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4. 次世代・再生可能エネルギー

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7. 電力品質

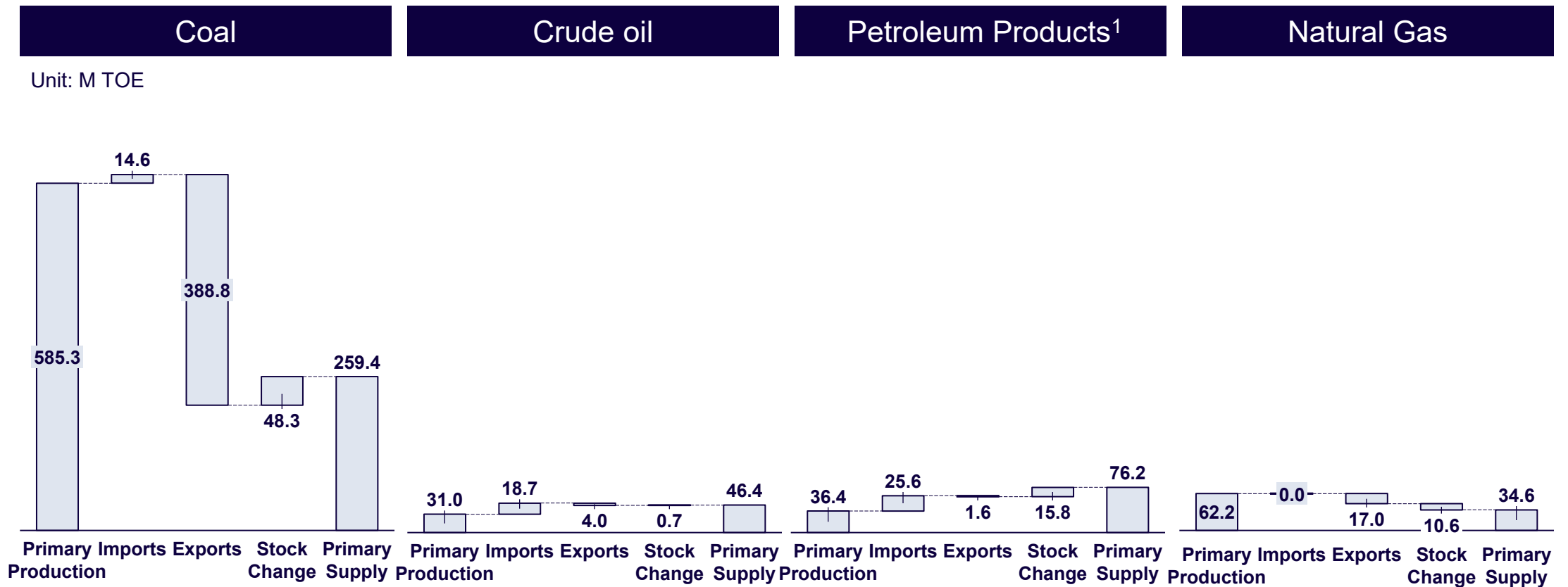
8. 送電網

9. 電気料金

10. 電力需給状況

インドネシアでは、石炭が最も大きな一次供給源となる一方、原油は輸入依存度が高く、石油製品も輸入超過、天然ガスは輸出が多く国内供給は比較的限定的である

Indonesia's Fossil Fuel Supply by Production, Imports, Exports, and Stock Change, 2024



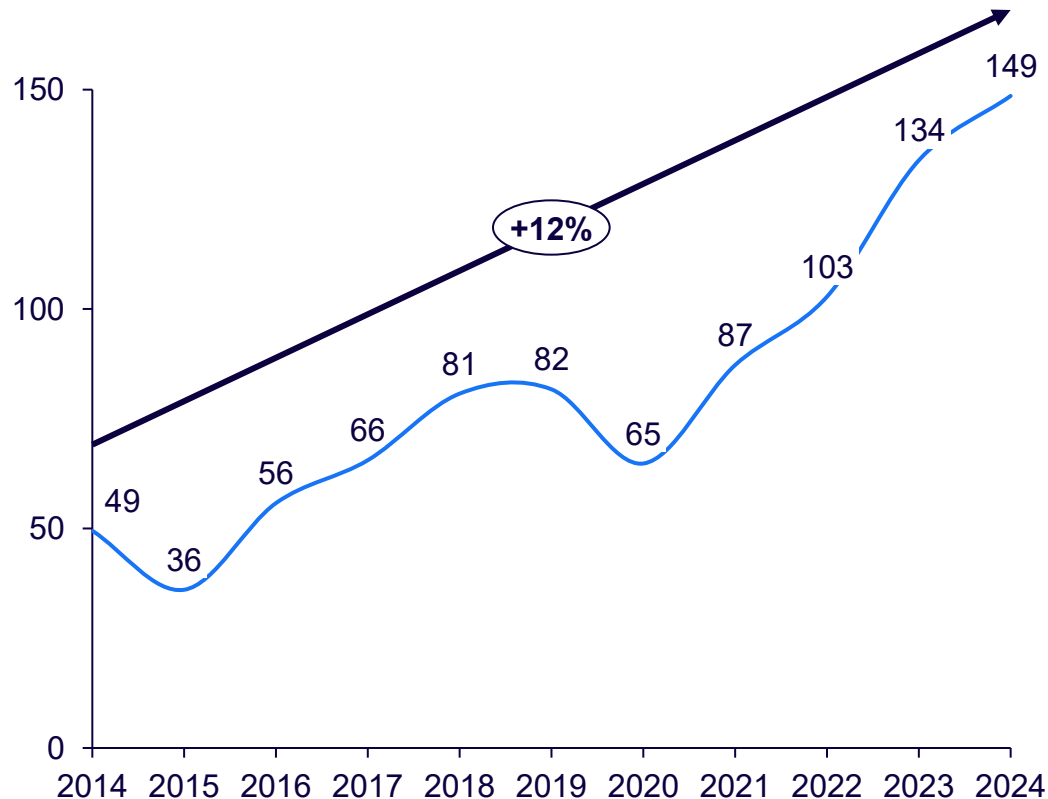
Note: 1) Excludes secondary fuel including Naphtha and HOMC;

Source: Indonesia Ministry of Energy and Mineral Resource Statistical Handbook 2024, Arthur D. Little analysis

# インドネシアでは褐炭と一般炭の生産・輸出が拡大する一方、国内販売義務（DMO）向け需要も増加しており、全体として石炭供給は成長基調にある

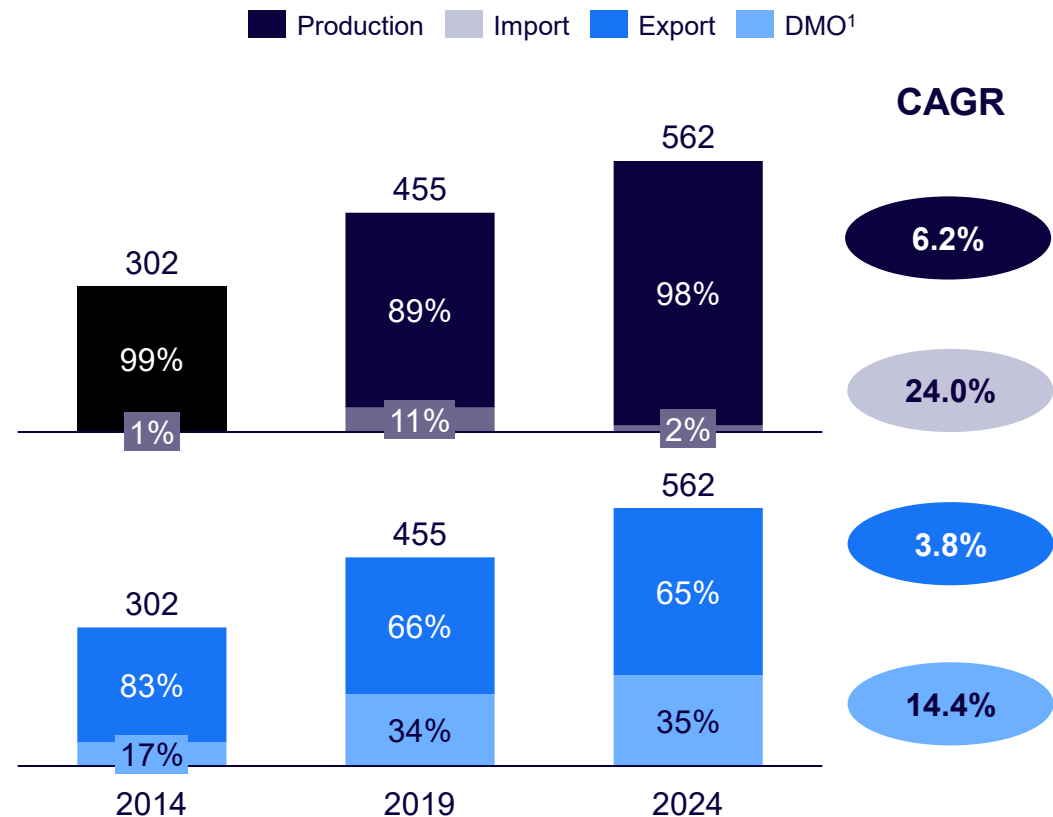
Lignite coal net export trend

2011 – 2021, Bn tons



Steam coal key trends

2011 – 2022, Mn BOE



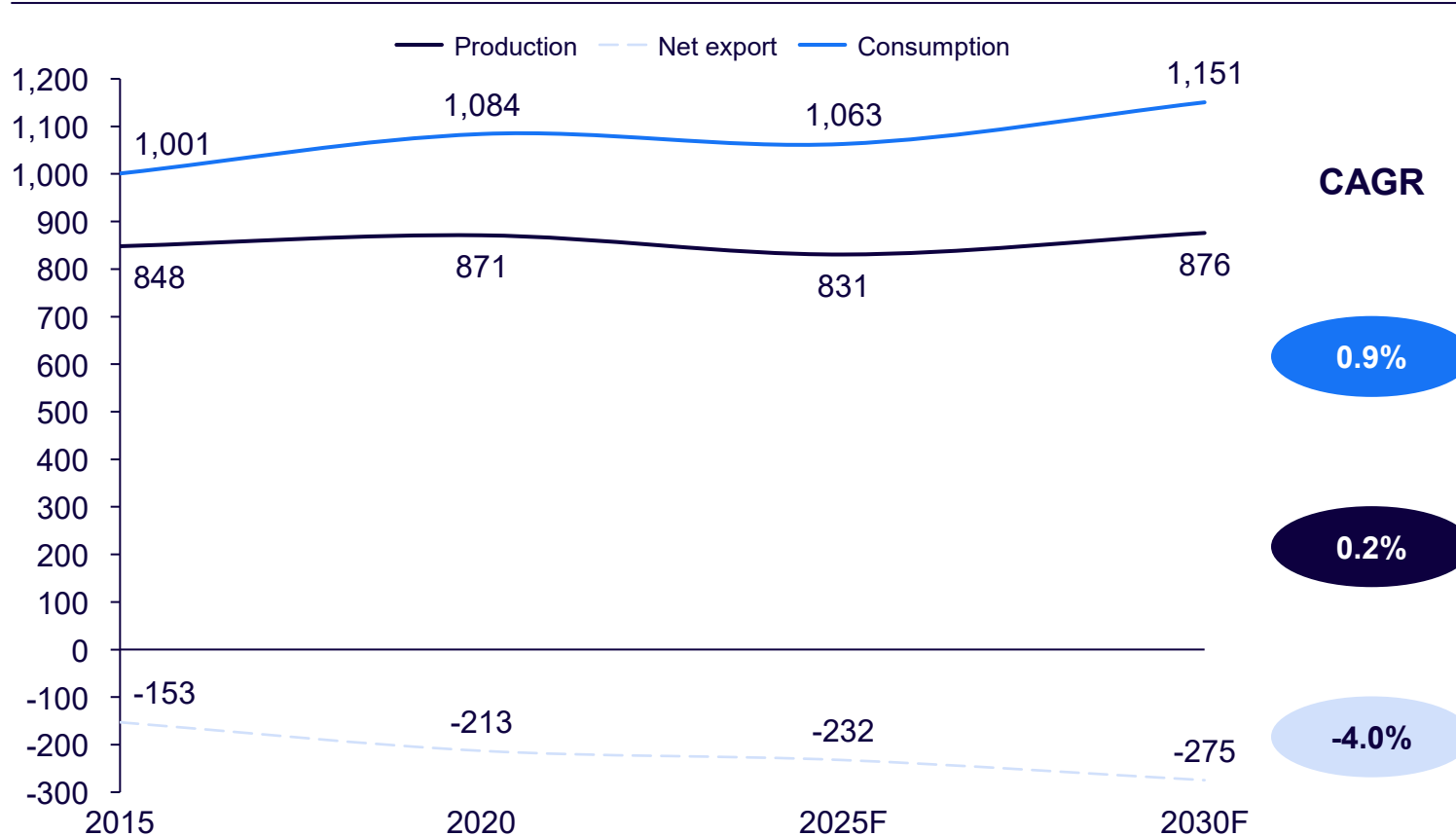
Note: 1) Domestic Market Obligation (DMO)

Source: Badan Pusat Statistik Indonesia, MEMR Statistical Handbook 202, Arthur D. Little analysis

## 国内の経済成長に合わせて消費は上昇。一方で、多くの油田が既に成熟化しており、生産量は減少傾向にあるため、今後輸入が増加する見込み

### Crude, NGPL & other liquids key trends

2015 – 2030, 000's bpd



### COMMENTS

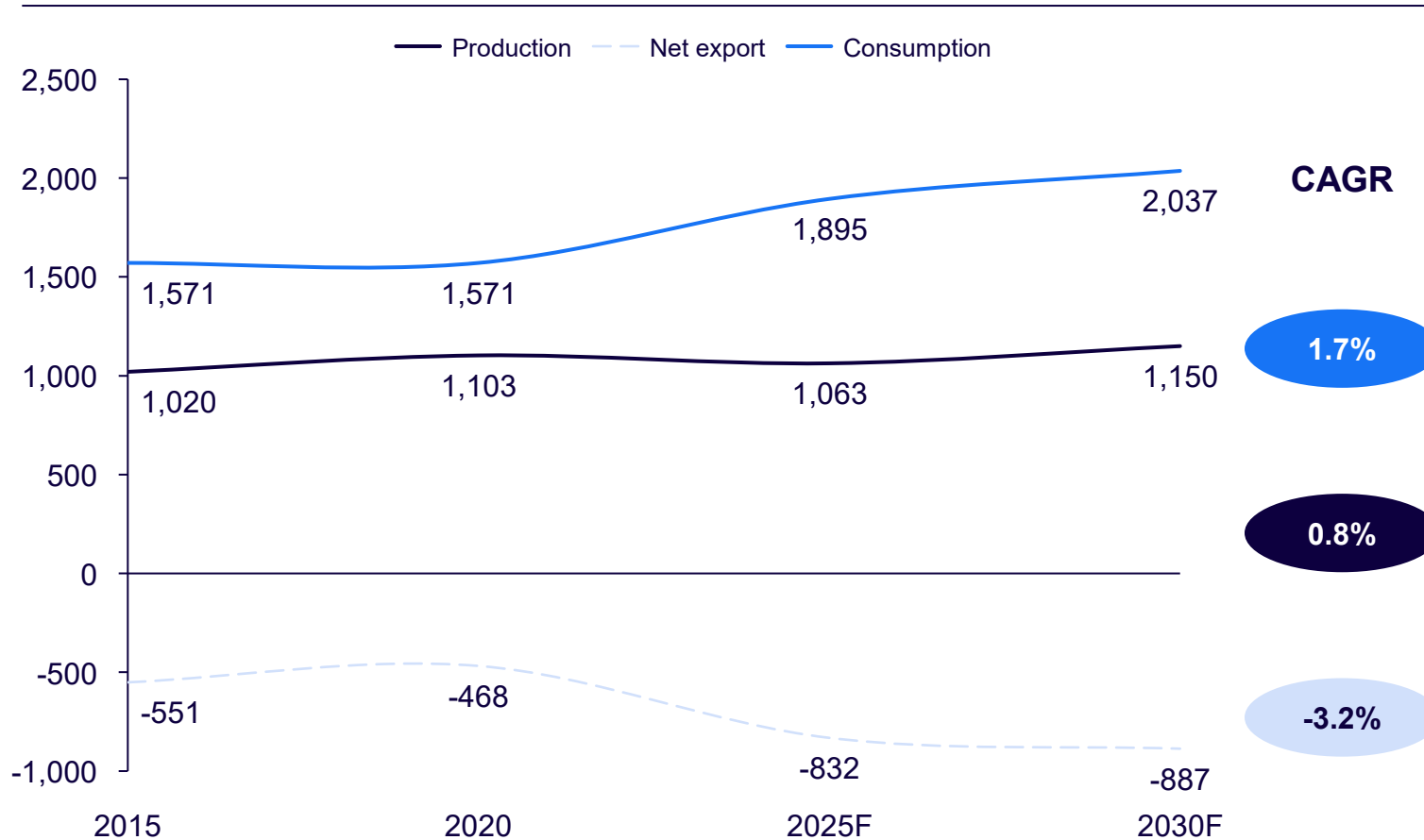


- In 2023, Indonesia produced about 605,000 barrels of crude oil per day, ranking it outside the top 20 global producers.
- Indonesia's oil wells have matured, with additional production losses from factors such as unforeseen shutdowns—necessitating the adoption of Enhanced Oil Recovery practices
- Currently a domestic market obligation (DMO) of 25% acts as a production floor to offset rising oil imports and serve domestic needs

## 石油精製品の需要が増加していることに伴い、消費量が増加しており、それに合わせて輸入量も増加傾向にある

### Refined petroleum products key trends

2015 – 2030, 000's bpd



### COMMENTS

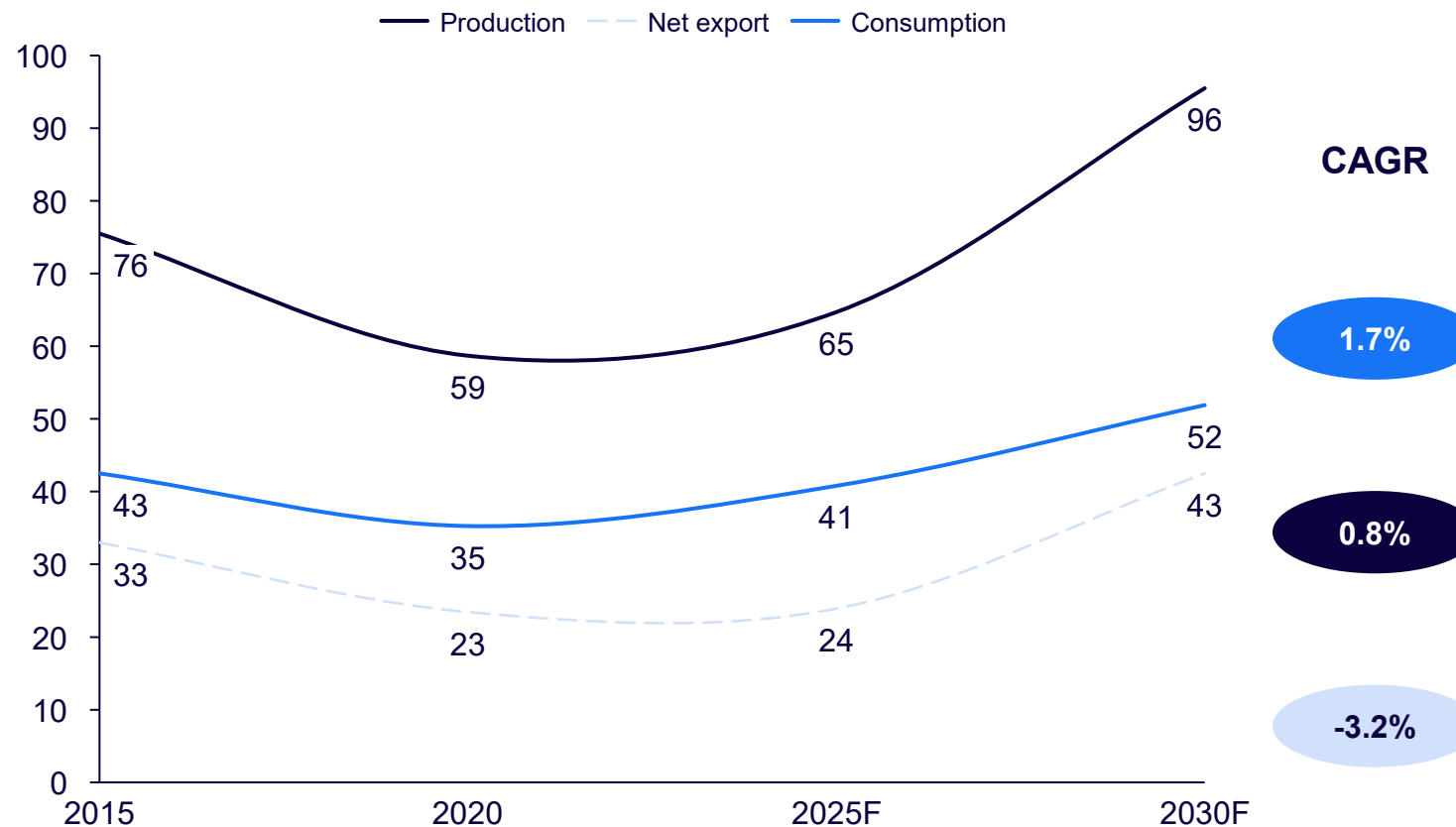
- There is a general increase in demand for refined petroleum products with expected 1.7% CAGR from 2015-2030.
- In 2023, Indonesia exported a total of USD 5.26B in Refined Petroleum, according to Observatory of Economic Complexity (OEC).
- For production, gasoline RON 88, RON 90 (30%) and Gasoil CN48 (46%) account for ~76% of all production in 2023 and have generally maintained large share from 2011-2023
- Current refineries are spread out across 8 locations with a processing capacity of 1.157 Million bpd

Note: The negative net export refers to import greater than export  
 Source: Fitch Solution 2025, Arthur D. Little analysis

## 天然ガスの消費量が増加している一方で、生産量は増加すると見込まれており、純輸出の拡大が期待される

### Dry natural gas key trends

2015 – 2030, BCF



### COMMENTS



- Indonesia was the fourth largest natural gas producer in Asia Pacific in 2023 behind China, Australia and Malaysia.
- Natural gas accounted for about 18% of Indonesia's total energy consumption in recent years.

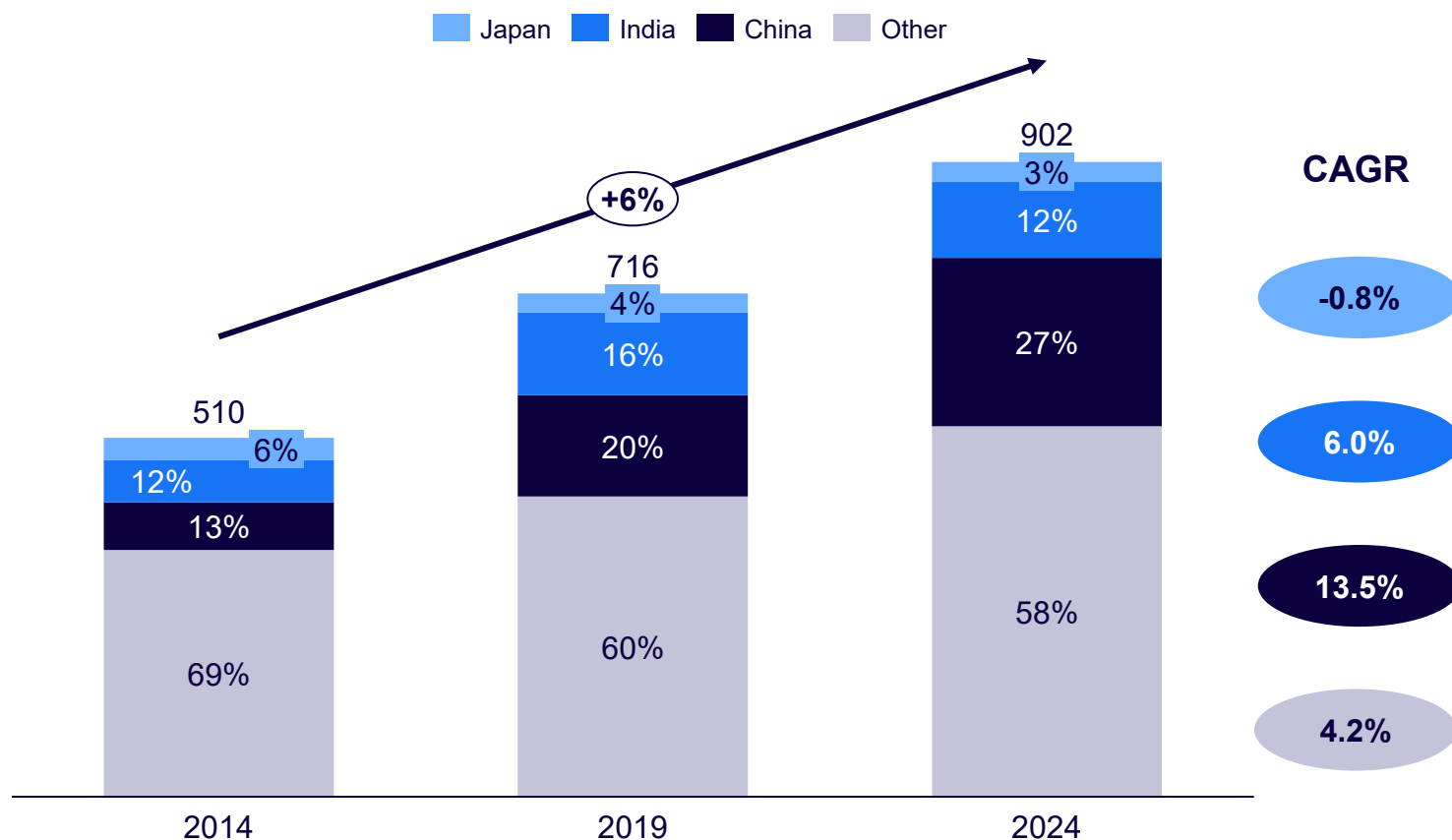
Note: The positive net export refers to export greater than import

Source: Indonesia Ministry of Energy and Mineral Resources, Asia Natural Gas & Energy Association, Arthur. D Little analysis

## インドネシアの石炭輸出は過去10年で年率6%増加し、特に中国とインドの需要拡大がけん引する一方、日本やその他地域の需要は減少

### Coal major export partners

2014 – 2024, Mn tons



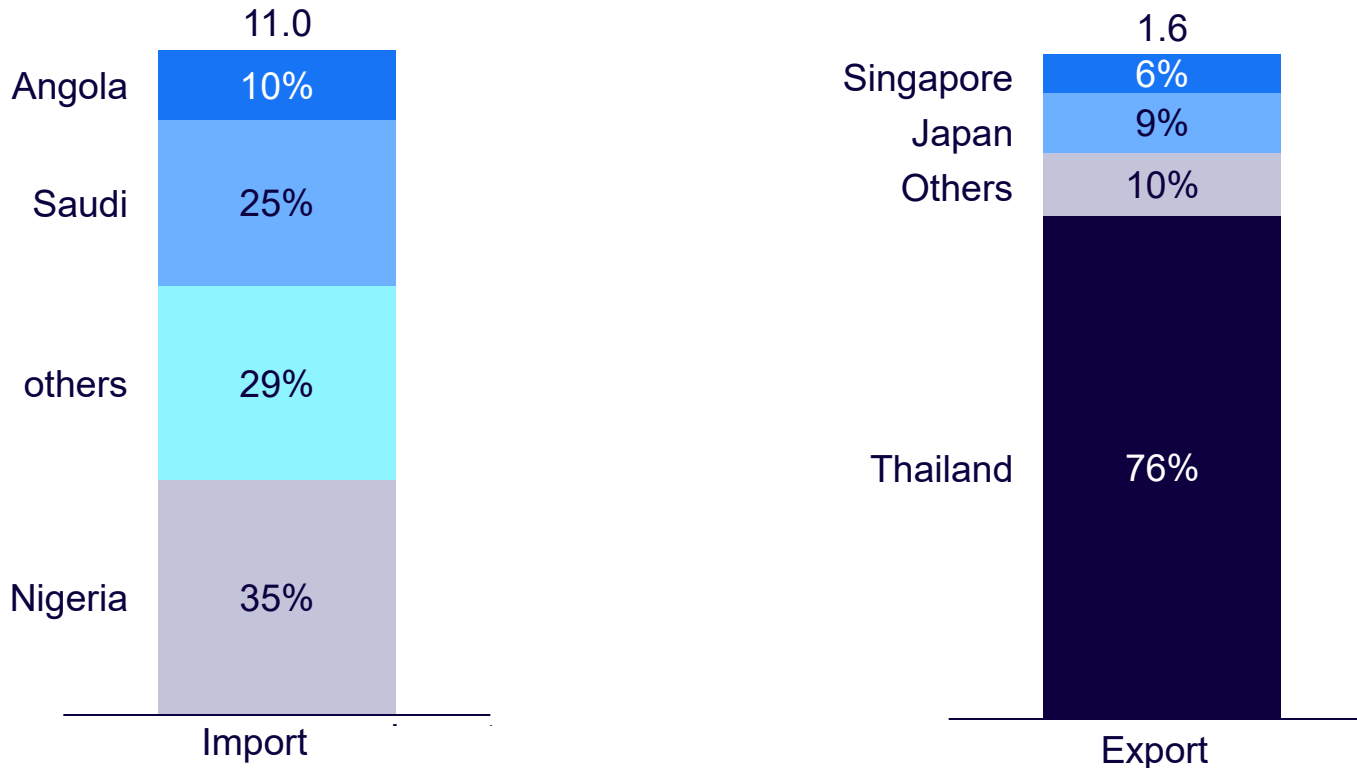
### COMMENTS

- Indonesia's coal exports have seen a growth of 6.0% over the past decade, rising from 510 mn tons 2011 to 465 mn tons in 2024
- China, India and Japan account for the bulk of coal exports in 2024 at 42% however, Philippines comes in at 6.9% in 2022. due to high prices in Vietnam – PH imported 38.5/42 mn tons of coal from ID in 2024
- The overall export increase was largely driven by demand from China at 13.5% growth YOY, stemming from expansion of industries and growth of the economy
- Likewise, we see increased growth in demand from India at 6.0% YOY
- Due to decreasing industrial activity, national policies on sustainability and emission goals, there has been a decrease in demand from Japan, seeing a drop of 0.8% YOY, similarly, this could be said of the Others category as well which is comprised of SEA, East Asia and European countries

# インドネシアの原油貿易では、輸入はナイジェリアとサウジが中心で、輸出はタイ向けが76%と圧倒的に多く、日本やシンガポールはそれぞれ1割未満にとどまっている

**Crude oil major export partners**  
2023, Bn USD

HS code: 2709 Crude petroleum oils



## COMMENTS

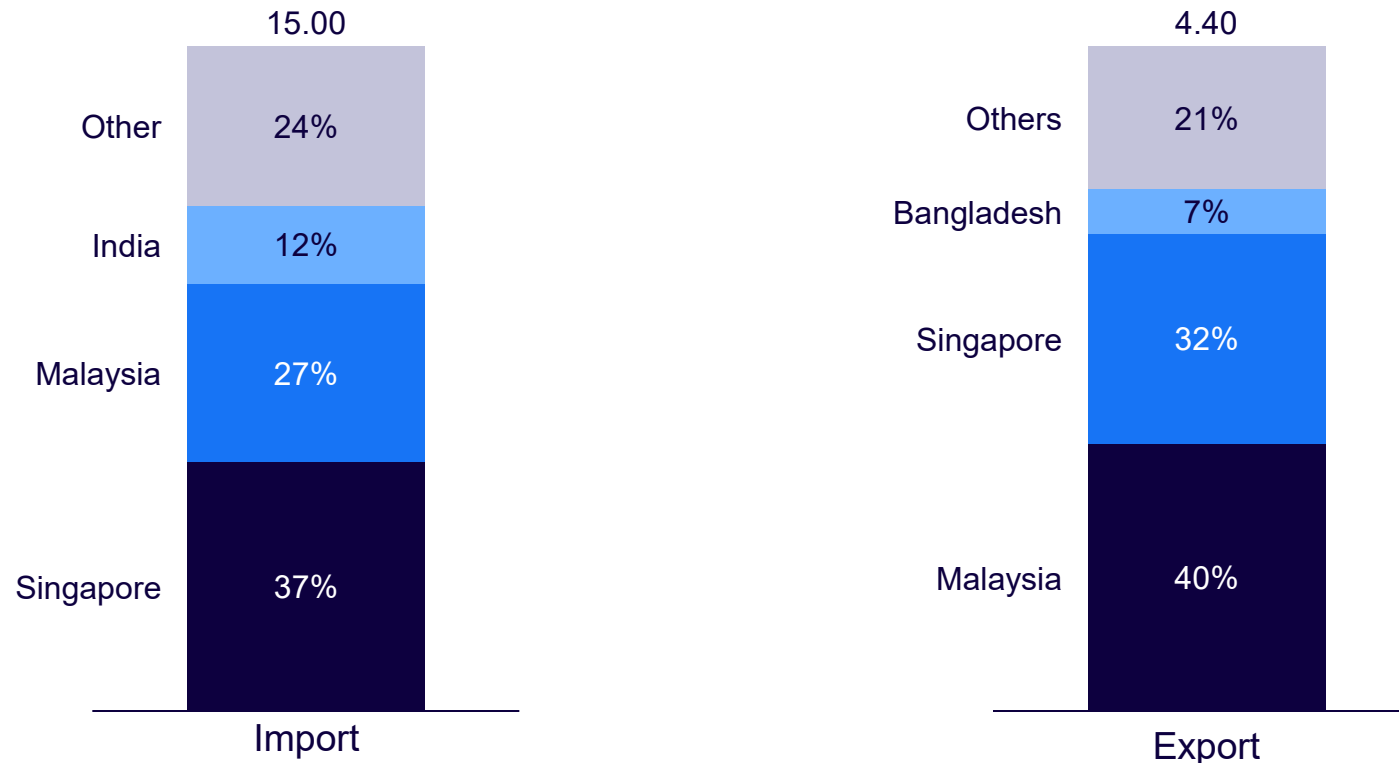
- National crude oil producers are obligated to sell 25% of their crude oil production to Pertamina’s refineries at a government mandated formula price to secure local supply
- Due to Pertamina taking over Chevron’s Rokan block in 2021, production of crude oil has significantly improved by 21% since its handover
  - Indonesia has experienced a rising import dependence; despite refinery throughput of 900 kb/d, Inonesia imported ~700,000 kb/d from Saudi and Nigeria (60%)
- SKK Migas aims to further improve upstream production with a target of 1 million b/d by 2030 through PSC term reforms.

Note: \*Inclusive of US, TW, Others (undefined)  
Source: The Atlas Growth Lab

インドネシアは精製石油製品の純輸入国であり、輸入は主にシンガポールとマレーシアから、輸出はマレーシアとシンガポール向けが中心

Refined Petroleum products import and export partners  
2023, Bn USD

HS code: 2710 Petroleum Oils,refined



COMMENTS

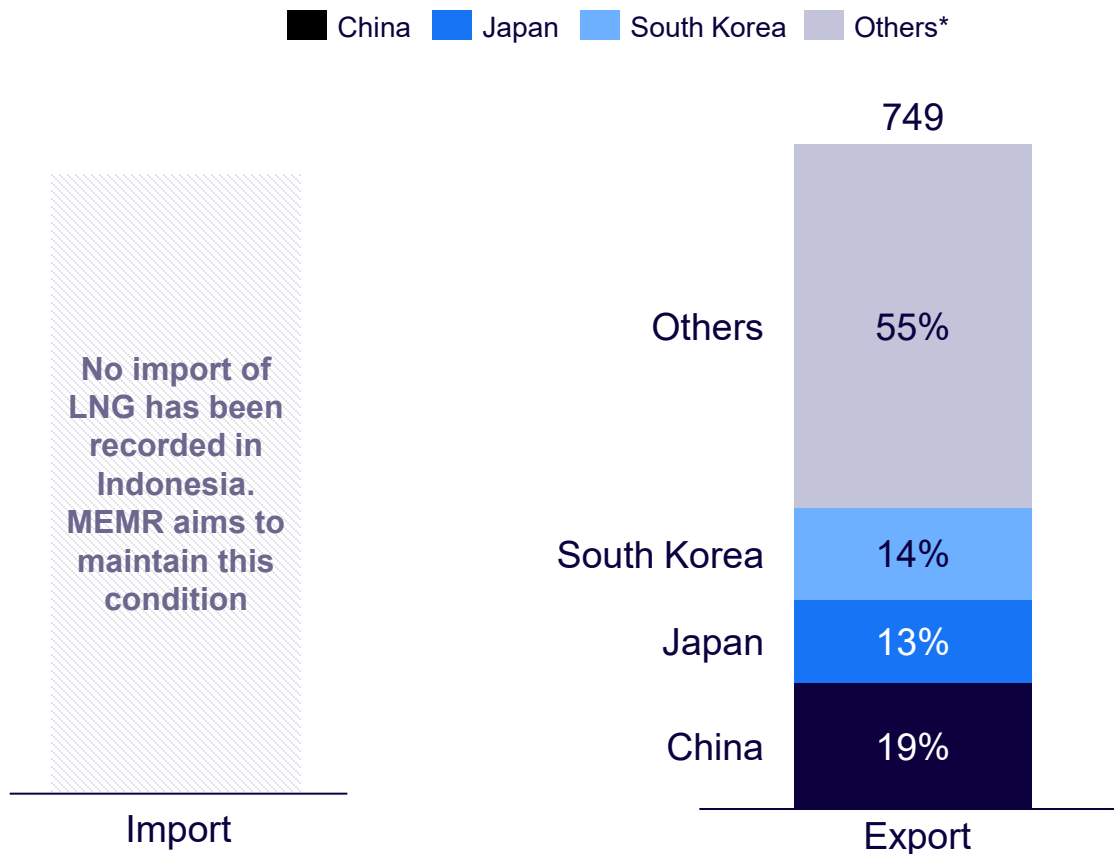


- Indonesia's refined petroleum products mainly come from Pertamina-owned refinery with a total of 1.15 million b/d capacity
  - Actual utilization ranges at 70 – 75%, limited due to maintenance needs and crude supply constraints
  - As a result of less optimized plant, Indonesia remains as a net importer of refined petroleum products, mainly importing from SG and MY
- Currently, there are active expansion projects in 2 areas, constituting of:
  - Balikpapan RDMP to add 360,000 b/d capacity, mainly for gasoline and diesel products
  - Tuban Grassroots Refinery: 300,000 b/d capacity from a JV between Pertamina with Rosfnet, project to commence in 2028

Note: \*Inclusive of US, TW, Others (undefined)  
Source: The Atlas Growth Lab

# インドネシアはLNGを輸入せず、中国、日本、韓国、その他諸国へ計7,490億立方フィートを輸出する主要輸出国

Natural gas<sup>1</sup> major export partners  
2024, Bn cubic feet



## COMMENTS

- DMO requires 25% of natural gas output to meet domestic supply
- PGN controls 93% of all national downstream infrastructure, >6,318 miles of transmission and distribution pipelines
- In 2024, Indonesia dropped from being the 7<sup>th</sup> largest LNG exporter to ~10<sup>th</sup> largest at ~749.08 bcf of LNG, largely to China (142 bcf), South Korea (103 bcf) and Japan (94 bcf)
- Indonesia has been largely losing market share to other LNG producers like Qatar, Malaysia, Australia, and the United States.
- 3 liquefaction plants have a combined capacity of 1.6 Tcf per year
  - The Bontang LNG train has a total capacity of 22.5 MPTA, Tangguh LNG train at 11.4 MPTA, Donggi-Senoro LNG at 2.0 MPTA
- Indonesia currently >400 bcf in regasification capacity and has the first LNG-to-power floating storage and regasification unit (FSRU) that began operating in 2020
  - Capacity of 494 thousand cf, and it is run by PT Sulawesi Regas Satu
  - Additional capacity of 330 thousand cf by Jawa Satu is a part of Asia's first integrated LNG-to-power setup

Note: 1) LNG trade; \*Others is undefined  
Source: World Integrated Trade Solution 2024, Secondary resources, Arthur D. Little Analysis

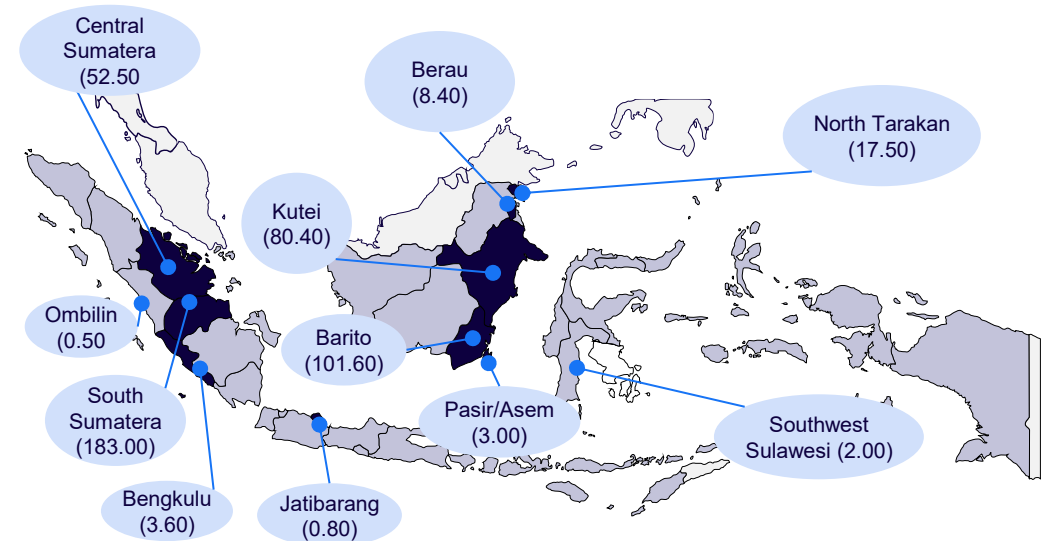
## スマトラ州とカリマンタン州には大量の石炭があり、低コストであることから、インドネシアでは石炭が最も有力なエネルギー源となっている

Coal bed methane list

No.	Basin	Province	Target Formation	Coal Thickness (m)	Coal Rank (Ro%)	Average Depth (m)	High Graded Area (km <sup>2</sup> )	Completable (Tcf)	Concentration (Bcf/mi <sup>2</sup> )
1	S. Sumatra	S. Sumatra	M.Enim	37	0.47	762	7,350	183	25
2	Barito	S. Kalimantan	Warukin	28	0.45	915	6,330	102	16
3	Kutei	E. Kalimantan	Prangat	21	0.50	915	6,100	80	13
4	C. Sumatra	Riau	Petani	15	0.40	762	5,150	53	10
5	N. Tarakan	E. Kalimantan	Tabul	15	0.45	701	2,734	18	6
6	Berau	E. Kalimantan	Latih	24	0.45	671	780	8.4	11
7	Ombilin	W. Sumatra	Sawaht	24	0.80	762	47	0.5	11
8	Pasir/Asem	S. Kalimantan	Warukin	15	0.45	701	385	3.0	8
9	NW Java	W. Java	T.Akar	6	0.70	1,524	100	0.8	8
10	Sulawesi	S. Sulawesi	Toraja	6	0.55	610	500	2.0	4
11	Bengkulu	Bengkulu	Lemau	12	0.40	610	772	3.6	5
<b>Total</b>							<b>30,248</b>	<b>453</b>	<b>15</b>

Coal bed methane

- CBM reserves are estimated to be larger than conventional gas reserves, esp. in the South Sumatra (183 TCF) and Kutai Basins as Indonesia is estimated to hold 6% of total global reserves
- However, commercialization of CBM remains as a challenge and no block has yet entered production



**Total Resources = 453.30 TCF**

Source: Stevens, S. "Indonesia Coalbed Methane Indicators and Basin Evaluation", presented at SPE Asia Pacific Oil and Gas Conference and Exhibit, Perth, Australia, 18-20 October, 2004, SPE 88630, Advanced Resources International, Inc. on behalf of Hadiyanto, Indonesian Ministry of Energy and Mineral Resources, Directorate General of Geology and Mineral Resources. Indonesia Ministry of Energy and Mineral Resource Statistical Handbook 2024, Nomura Indonesia 2017, Arthur D. Little analysis

## インドネシアの石炭埋蔵量

### Indonesia Coal Reserves Overview (Mn Ton, as of December 2024)

Province	Exploration Target <sup>1)</sup>	Total inventory <sup>1)</sup>	Resources <sup>1)</sup>				Verified Resources <sup>2)</sup>	Reserves <sup>1)</sup>	Verified Reserves <sup>2)</sup>
			Inferred	Indicated	Measured	Total			
Aceh	1.16	20.92	314.58	401.94	326.23	1,042.75	791.28	507.05	409.40
North Sumatera	-	14.62	10.24	8.48	7.55	26.26	-	7.12	-
West Sumatera	1.19	362.99	26.30	19.54	33.09	78.94	28.51	29.20	12.37
Riau	36.92	525.88	271.52	282.00	303.27	856.79	854.76	359.27	358.75
Jambi	142.37	1,309.05	1,042.78	1,140.65	1,995.48	4,178.90	3,455.55	1,700.30	1,574.20
South Sumatera	4,885.39	10,732.23	7,541.71	9,795.50	8,325.82	25,663.02	22,257.11	8,935.07	8,556.31
Bengkulu	42.75	211.92	137.74	106.06	171.33	415.12	367.59	110.06	93.76
Lampung	-	106.95	10.25	24.28	60.32	94.85	-	60.32	-
Central Java	-	0.80	-	-	-	-	-	-	-
East Java	-	0.10	-	-	-	-	-	-	-
Banten	5.47	52.20	-	-	-	-	-	-	-
West Kalimantan	2.26	463.44	19.28	13.15	38.55	70.98	-	11.22	-
Central Kalimantan	35.39	2,936.23	3,853.66	3,138.08	3,050.54	10,042.28	8,793.99	2,949.97	2,473.34
South Kalimantan	7.83	1,846.31	3,481.90	3,414.04	6,635.73	13,531.67	12,376.75	4,066.94	3,644.19
East Kalimantan	890.55	14,115.76	8,377.75	13,055.48	17,892.13	39,325.36	36,268.91	12,257.02	11,177.66
North Kalimantan	25.79	379.80	857.89	826.56	927.34	2,611.79	2,554.54	957.87	941.01
Central Sulawesi	0.52	1.98	-	-	-	-	-	-	-
South Sulawesi	13.79	31.31	-	-	-	-	-	-	-
Southeast Sulawesi	0.64	-	-	-	-	-	-	-	-
West Sulawesi	11.47	26.26	1.30	1.00	0.85	3.15	3.15	-	-
North Maluku	8.22	-	-	-	-	-	-	-	-
Papua	7.20	31.36	-	-	-	-	-	-	-
West Papua	93.66	32.82	6.00	5.70	7.20	18.90	18.90	4.09	4.09
<b>TOTAL</b>	<b>6,212.57</b>	<b>33,202.95</b>	<b>25,952.90</b>	<b>32,232.44</b>	<b>39,775.43</b>	<b>97,960.76</b>	<b>87,771.04</b>	<b>31,955.50</b>	<b>29,245.08</b>

## 石炭と同様に、石油の埋蔵量も主にスマトラ島に集中



## インドネシアで現在操業中の主要油田・ガス田一覧(1/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block B	North Belut	Riau Island	Medco Energi (75%), Chevron (25%)	Production	33,000	3.2	Gas & Condensate
Block B	Bawal	Riau Island	Chevron (25%), Medco Energi (75%)	Production			Gas
Block B	South Belut	Riau Island	Chevron (25%), Medco Energi (75%)	Production		1.2	Gas
Block B, Aceh Province	Arun	Aceh	Pema Global Energy (90%), Pase Energi NSB (10%)	Non-Producing	130,000	34	Gas & Condensate
Block Cepu	Banyu Urip	East Java	Badan Kerja Sama Blok Cepu (10%), ExxonMobil (45%), Pertamina (45%)	Production	201,000		Oil
Block Jabung, Jambi	North Geragai, Makmur, North Betara, Northeast Betara and Gemah	Jambi	China National Petroleum, Corporation (CNPC) (27.86%), PP Oil & Gas (30%), Petronas, (27.86%), Pertamina (14.28%)	Production	50,000		Oil & Gas
Block Jambi Merang	Sungai Kenawang, Pulau Gading, Gelam	South Sumatera	Pertamina (100%)	Production			Gas & Condensate
Block Kakap	KH, KRA, Jangkar, South KRA, KF	Riau Island	Star Energy Indonesia (56.25%), Singapore Petroleum Company (15%), Pertamina (10%), Premier Oil (18.75%)	Production	7,500	0.6	Oil & Gas
Block Kepala Burung	Klalin	West Papua	China National Petroleum Corporation (30%), RH Petrogas Production (60%), Pertamina (10%)	Production			Oil & Gas
Block Lematang	Singa	South Sumatera	Medco Energi (100%)	Production		0.5	Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(2/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block Makassar Strait, Kutei Basin	West Seno	East Kalimantan	Chevron (90%), Pertamina (10%)	Production	60,000	1.5	Oil & Gas
Block Ogan Komering	Air Serdang, Guruh, Mandala	South Sumatera	Pertamina (100%)	Production	8,300		Oil
Block Raja and Pendopo (King and Pendopo)	Air Hitam, Tanjung Kurung, and Tempira	South Sumatera	Golden Spike Indonesia (50%), Pertamina (50%)	Production			Oil & Gas
Block Salawati Kepala Burung	Block Salawati, Kepala Burung	West Papua	China National Petroleum Corporation (16.8%), RH Petrogas (33.2%), Pertamina (50%)	Production			Oil
Block Sampang, East Java Basin	Oyong, Wortel, Paus Biru	East Java	Ophir Energy (45%), Cue Energy (15%), Singapore Petroleum Company (40%)	Production		0.9	Gas
Bangko Block, South Sumatera	Gambang, West Piano, Kenong	Jambi	China National Petroleum Corporation (100%)	Production			Oil & Gas
Block B	Belida	Riau Island	Chevron (25%), Medco Energi (75%)	Production	130,000		Oil
Block B	Belanak	Riau Island	Chevron (25%), Medco Energi (75%)	Production	50,000		Oil, Gas & Condensate
Block B	Hiu	Riau Island	Chevron (25%), Medco Energi (75%)	Production			Gas
Block B	Kerisi	Riau Island	Chevron (25%), MedcoEnergi	Production			Oil & Gas
Block South Sumatera	Block South Sumatera	South Sumatera	Medco Energi (100%)	Production	8,000	1.3	Oil & Gas
Block Tarakan	Block Tarakan	North Kalimantan	MedcoEnergi (90%), PT Migas Kaltara Jaya (10%)	Production			Oil & Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(3/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block Tengah, Block Mahakam	Sisi, Nubi	East Kalimantan	Pertamina (4.2%), Inpex Corporation (47.9%), Total (47.9%)	Production		3.5	Gas
Block Tuban, East Java	Mudi, Sukowati	East Java	Corporation (25%), Pertamina (75%)	Production	60,000		Oil & Gas
Brantas PSC	Wunut, Carat, Tanggulangin	East Java	Energi Mega Persada (50%), Prakarsa Transforma Indonesia (32%), Santos (18%)	Production			Gas
Corridor PSC	Corridor PSC	East Sumatera	Medco (70%), Pertamina (30%)	Production	48,000	8.1	Oil & Gas
Indonesia Deep Water Development	Bangka	East Kalimantan	Tip-Top Oil & Gas (18%), Eni (20%), Chevron (62%)	Non-Producing		1.1	Gas & Condensate
Jangkrik Complex, Muara Bakau Block, Kutei Basin	Jangkrik, Jangkrik North East	East Kalimantan	Saka Energi (11.7%), Engie (33.3%), Eni (55.0%)	Production		4.5	Gas & Condensate
Kangean PSC, East Java	Ngimbang, Rancak, Sepanjang, North Pagerungan, West Kangean, Terang, Sirasun, Batur	East Java	Kangean Energy Indonesia (60%), Energi Mega Persada (40%)	Production	38,000		Oil & Gas
Kangean PSC, East Java	Terang, Sirasun, Batur	East Java	Kangean Energy Indonesia (60%), Energi Mega Persada (40%)	Production		3	Gas
Ketapang Block	Bukit Tua	East Java	Petronas (80%), Saka Ketapang Perdana (20%)	Production	20,000	0.5	Oil & Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(4/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Korinci Baru PSC	Baru, West Baru	Riau	Energi Mega Persada (100%)	Production			Gas
Madura Block, East Java Basin	MDA, BD, MBH, MDK, MAC, MAX, MBJ, MBF	East Java	Samudra Energy (20%), China National Offshore Oil Corporation (40%), Husky Energy (40%)	Production	6,000	2.5	Gas & Condensate
Madura Offshore PSC	Maleo, Peluang	East Java	Petrogas Pantai Madura (10.0%), PC Madura (22.5%), Santos (67.5%)	Production		1.1	Gas
Mahakam Block	Peciko	East Kalimantan	Pertamina (100%)	Production		13	Gas & Condensate
Mahakam Block	Bekapal	East Kalimantan	Pertamina (100%)	Production	60,000	1	Oil & Gas
Mahakam Block	Handil	East Kalimantan	Pertamina (100%)	Production	180,000		Oil
Mahakam Block	Tunu	East Kalimantan	Pertamina (100%)	Production		180	Gas & Condensate
Mahakam Block	Tambora	East Kalimantan	Pertamina (100%)	Production		3	Gas & Condensate
Malacca Strait PSC	Kuat, Lalang, Kurau, Ponder, Melibur Selatan, Mengkapan	Riau	Energi Mega Persada (100%)	Production	7,000		Oil & Gas
Matindok, Banggal Basin	Donggi, Matindok Sukamaju, Maleo Raja and Minahaki	Central Sulawesi	Pertamina (100%)	Production		1	Gas
Muriah Block	Kepodang	Central Java	Saka Energi (100%)	Production		1.2	Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(5/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Natuna Block A PSC	Gajah Baru	Riau Island	Premier Oil (28.67%), Kuwait Foreign Petroleum Exploration Company (33.33%), Natuna 1 B.V. (Petronas) (15%), Natuna 2 B.V. (PTTEP and Pertamina PHE) (23%)	Production		1.4	Gas
Natuna Block A PSC	Anoa	Riau Island	Premier Oil (28.67%), Kuwait Foreign Petroleum Exploration Company (33.33%), Natuna 1 B.V. (Petronas) (15%), Natuna 2 B.V. (PTTEP and Pertamina PHE) (23%)	Production	25,000		Oil & Gas
Natuna Block A PSC	Naga	Riau Island	Premier Oil (28.67%), Kuwait Foreign Petroleum Exploration Company (33.33%), Natuna 1 B.V. (Petronas) (15%), Natuna 2 B.V. (PTTEP and Pertamina PHE) (23%)	Production			Gas
Natuna Block A PSC	Pelikan	Riau Island	Premier Oil (28.67%), Kuwait Foreign Petroleum Exploration Company (33.33%), Natuna 1 B.V. (Petronas) (15%), Natuna 2 B.V. (PTTEP and Pertamina PHE) (23%)	Production			Gas
North Sumatra Offshore Block	North Sumatra Offshore Block	Aceh	Pertamina (100%)	Production		4	Gas
Paku Gajah	Paku Gajah	East Sumatera	Pertamina	Production		0.5	Oil & Gas
Pangkah PSC	Ujung Pangkah. Sidayu	East Java	Saka Energi (100%)	Production	25,000	1.5	Oil & Gas
Pase PSC, Aceh Province	Pase PSC	Aceh	Enso Asia (100%)	Production		1.4	Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(6/9)

Name	Field Name	Location	Companies	Status	Est.Peak Oil/ Liquid Range (b/d)	Est.Peak Gas Output (bcm)	Type of Project
Rokan PSC	Rokan PSC	Riau	Chevron (100%)	Production	213,550		Oil & Gas
Sanga Sanga Block, Kutei Basin	Badak, Mutiara, Semberah, Nilam, Paraguana, Lampake and Beras	East Kalimantan	Karunia Utama Perdana (13.7%) Opicoil (8.78%), Pertamina (67.5%)	Production			Oil
Sanga Sanga CBM Block, Kutel Basin	Sanga Sanga CBM Block	East Kalimantan	Universe Gas and Oil (4.4%), BP (37.8%), Eni (37.8%), Opicoil (20.0%)	Production		4.2	CBM
Sebuku PSC	Ruby	West Sulawesi	Mubadala Energy (63%), TotalEnergies EP Sebuku (13.5%), INPEX South Makassar Ltd. (13.5%), PT Dangsanak Banua Sebuku (10%)	Production		1	Gas
Sengkang PSC	Kampung Baru, Wasambo (Walanga, Sampi Sampi, Bonge)	South Sulawesi	Energy Equity Epic Sengkang Pty.Ltd (51%) PT. Energi Mega Abadi (49%)	Production			Gas
Senoro-Tolli PSC	Senoro, Tiaka, Cendanapura, Toili	Central Sulawesi	Tomori E&P (20%), Pertamina (50%), MedcoEnergi (30%)	Production	8,000	3.1	Oil, Gas & Condensate
Seram PSC (Non-Bula) Seram Basin	Oseil, Lofin, Nief Utara	Maluku	Lion Oil Company (2.5%), Gulf Petroleum Investment (16.5%), Kuwait Foreign Petroleum Exploration (30.0%), CITIC Group (51.0%)	Production	35,000		Oil & Gas
South Mahakam	Stupa, West Stupa, East Mandu Jempang Metulang	East Kalimantan	Total (50%), Inpex Corporation (50%)	Production	14,000	3.3	Gas & Condensate

## インドネシアで現在操業中の主要油田・ガス田一覧(7/9)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Southeast Sumatra PSC	Southeast Sumatra PSC	Jakarta	Pertamina (20.5%), Saka Energi (8.91%), China National Offshore Oil Corporation (65.5%), Kuwait Foreign Petroleum Exploration (5.0%)	Production	200,000		Oil & Gas
Tanggung	Berau, Muturi, Wiriagar	West Papua	Repsol (3.06%), BP (37.16%), China National Offshore Oil (13.9%), Nippon Oil (12.23%), LNG Japan (7.35%), KG Berau/ KG Wiriagar Petroleum (10%), MI Berau (16.3%)	Production			Gas
Una Dos Rayu K50	Uno, Dos Rayu		Indrilico (50%), Samudra Energy	Production			Oil & Gas
Merakes Field	Merakes Field	East Kalimantan	Eni (85%), Pertamina (15%)	Production		4.62	Gas
Hiu Phase 2	Hiu Phase 2	Riau Island	Medco E&P Natuna	Production		0.50	Gas
Belida Extension	Belida Extension	Riau Island	Medco E&P Natuna	Production		0.41	Gas
Baru Gas Plant Modification to Tenayan PLN	Baru Gas Plant Modification to Tenayan PLN	Riau	EMP Bentu Ltd	Production		0.31	Gas
JOB PMEPS	JOB PMEPS	North Kalimantan	OPL South Sembakung	Production		0.31	Gas
Jumelai	Jumelai	East Kalimantan	Pertamina Hulu Mahakam	Production		0.41	Gas
North Sisi North Nubi	North Sisi North Nubi	East Kalimantan	Pertamina Hulu Mahakam	Production		0.92	Gas
Bekapai 3	Bekapai 3	East Kalimantan	Pertamina Hulu Mahakam	Production		0.28	Gas
MDA MBH	MDA MBH	East Java	Husky CNOOC Madura Ltd	Production		1.08	Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(8/9)

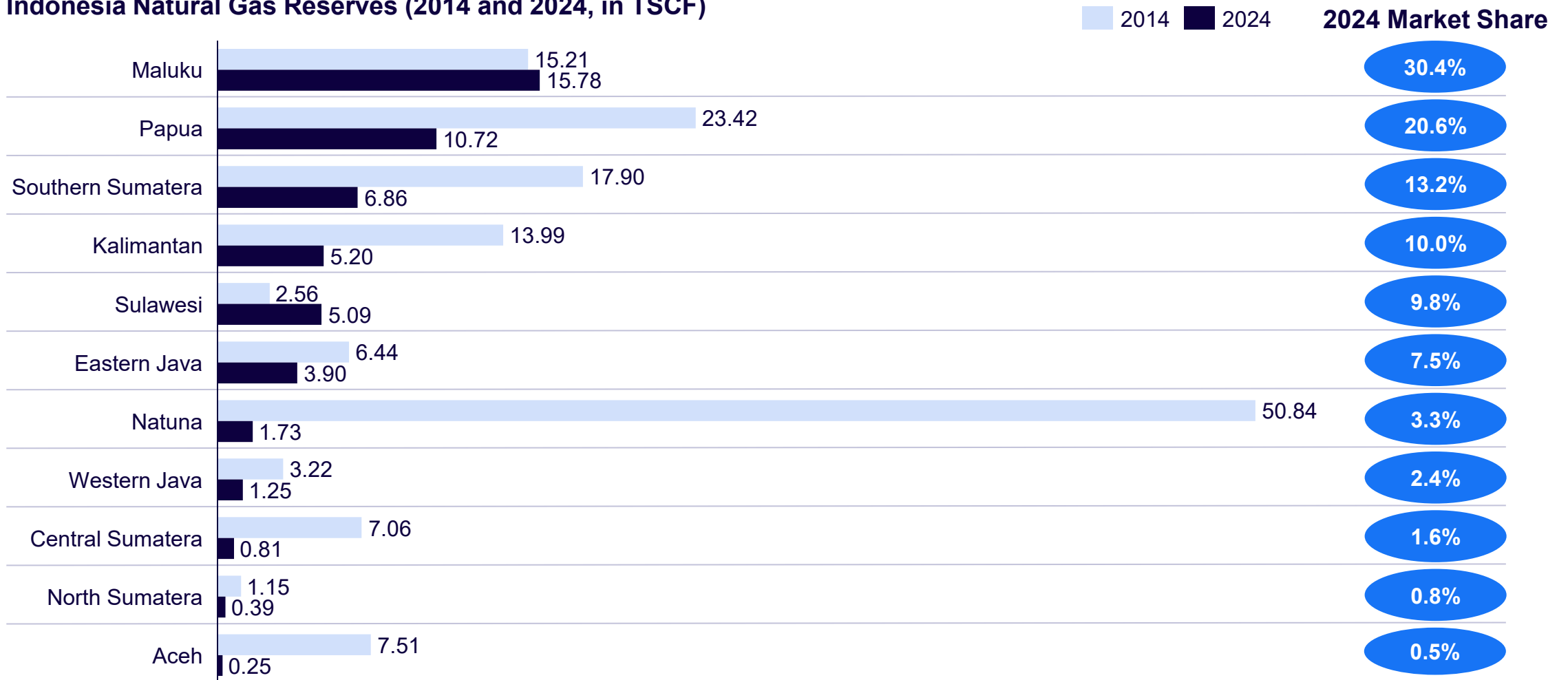
Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
MAC	MAC	East Java	Husky CNOOC Madura Ltd	Production		0.56	Gas
Bukit Tua Phase-2B Project	Bukit Tua Phase-2B Project	East Java	Petronas Carigali Ketapang II Ltd	Production		0.31	Gas
Jambaran Tiung Biru	Jambaran Tiung Biru	East Java	Pertamina	Production		1.95	Gas
Tangguh T3	Tangguh T3	West Papua	BP	Production		7.19	Gas
Merakes East Field	Merakes East Field	East Kalimantan	TotalEnergies	Production		4.52	Gas
West Belut	West Belut	Riau Island	Medco Natuna	Production		0.52	Gas
Dayung Facility Optimisation	Dayung Facility Optimisatio	South Sumatera	Medco Grissik	Production		0.41	Gas
Compressor Facility South Sembakung	Compressor Facility South Sembakung	North Kalimantan	JOB PMP Simenggaris	Production		0.23	Gas
Peciko 8B	Peciko 8B	East Kalimantan	Pertamina Hulu Mahakam	Production		0.17	Gas
Bekapai Artificial Lift	Bekapai Artificial Lift	East Kalimantan	Pertamina Hulu Mahakam	Production		0.12	Gas
SWPG Debottlenecking	SWPG Debottlenecking	East Kalimantan	Pertamina Hulu Mahakam	Production		0.08	Gas
Akatara Gas Plant	Akatara Gas Plant	Jambi	Jadestone Energy	Production		0.26	Gas

## インドネシアで現在操業中の主要油田・ガス田一覧(9/9)

Name	Field Name	Location	Companies	Status	Est.Peak Oil/ Liquid Range (b/d)	Est.Peak Gas Output (bcm)	Type of Project
Merbau Compressor	Merbau Compressor	Riau Island	Pertamina EP	Production		0.08	Gas
Karang Baru	Karang Baru	Aceh	Pertamina EP				
AFCP	AFCP	Riau Island	Premier Oil	Production		1.21	Gas
SP Puspa Asri	SP Puspa Asri	Jambi	Pertamina EP	Production	600,000		Oil
Flowline ASDJ-116X	Flowline ASDJ-116X	South Sumatera	PHE Ogan Kemering	Production	94,000		Oil
OPL E-Main	OPL E-Main	Java (Unspecified)	PHE ONWJ	Production	128,000		Oil
Forel Bronang	Forel Bronang	Riau Island	Medco Natuna	Production	10,000		Oil
Banyu Urip Infill Clastic	Banyu Urip Infill Clastic	East Java	ExxonMobil Cepu Ltd.	Production	30,000		Oil

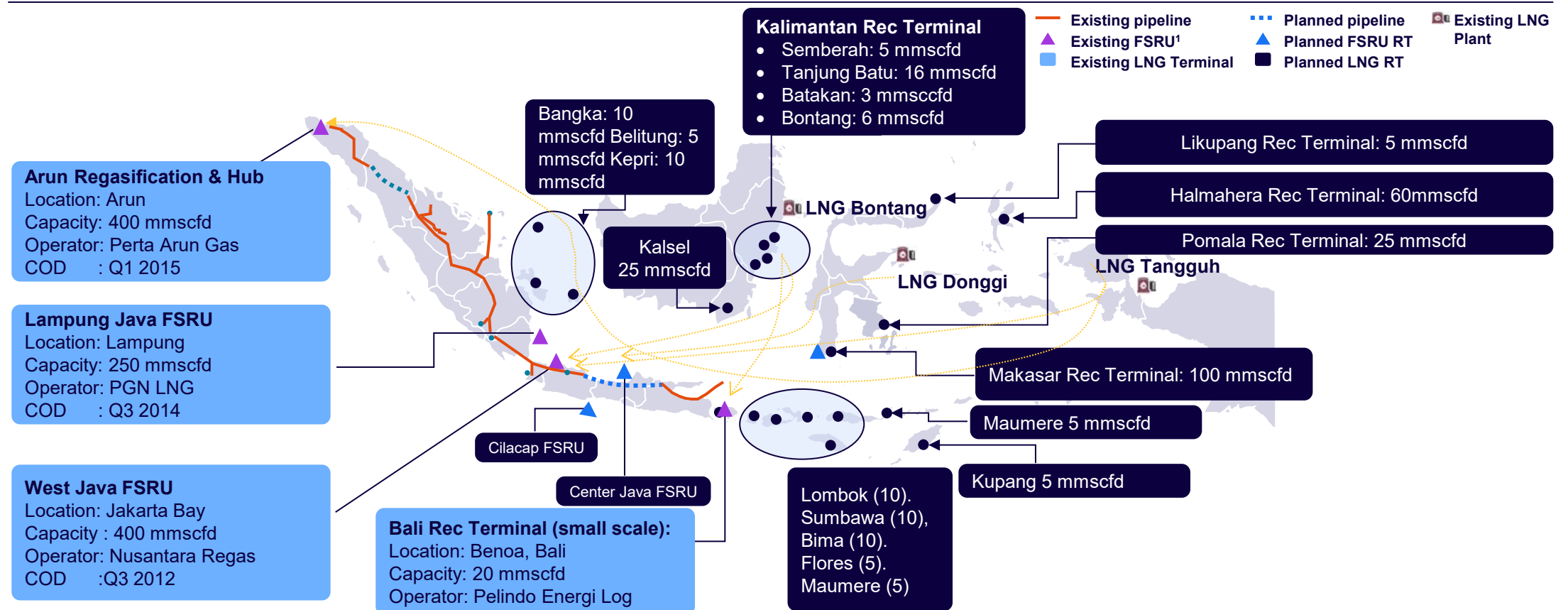
## インドネシアの天然ガス埋蔵量は2024年時点でマルクとパプアが大きなシェアを占め、続いて南スマトラ、カリマンタン、スラウェシが主要産地

Indonesia Natural Gas Reserves (2014 and 2024, in TSCF)



## 既設のFSRU／再ガス化拠点など幹線パイプラインを軸に、カリマンタンや東部島嶼での新規受入・再ガス化ターミナル整備を進め、全国のLNG供給ネットワークを拡張

### LNG plants and terminals



1) Floating Storage and Regasification Unit  
Source: Natural Gas World

## パイプラインの主な石油・ガス田の一覧 - (1/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Ande Ande Lumut, West Natuna Basin	Ande Ande Lumut	Riau Island	Santos (50%), AWE (50%)	Development	25,000		Oil
Bengara II Block	Seberaba	East Kalimantan	GeoPetro Resources (12%), Continental Engineering Corporation (18%), China National Petroleum Corporation (70%)	Appraisal			Oil & Gas
Block Bengara	South Sebuku	East Kalimantan	MedcoEnergi (100%)	Development			Gas
Block East Ambalat	Block East Ambalat	East Kalimantan	Pertamina (100%)	Development	40,000		Oil & Gas
Block Kampar	Block Kampar	Riau	PT. Energi Mega Persada	Appraisal			Oil
Block MNK Sumbagut	Block MNK Sumbagut	Riau	Pertamina (100%)	Appraisal		1	Shale Gas
Block Sampang, East Java Basin	Jeruk	East Java	Ophir Energy (45%), Cue Energy (8.2%), Singapore Petroleum Company (21.8%)	Production			Oil
Block Sangatta I, East Kalimantan	Block Sangatta I (Sangatta West)	East Kalimantan	Ephindo (48%), Pertamina (52%)	Production			CBM
Block Sangatta II, East Kalimantan	Block Sangatta II	East Kalimantan	Visi Multi Artha (60%), Pertamina (40%)	Production			CBM
Block Tanjung Enim, South Sumatera	Block Tanjung Enim	South Sumatera	NuEnergy Gas (45%), Bukit Asam (27.5%), Pertamina (27.5%)	Production			CBM
Bulu PSC	Lengo	East Java	HyOil (42.5%), Satria (15%), KrisEnergy (42.5%)	Production		0.7	Gas
Central Mahakam Block, Kutai Basin	Central Mahakam Block	East Kalimantan	Pertamina (100%)	Production			Oil & Gas

## パイプラインの主な石油・ガス田の一覧 - (2/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
East Natuna Block, Riau Islands	East Natuna Block (Natuna D Alpha)	Riau Island	Pertamina (100%)	Exploration		40	Gas
East Sepinggan Block, Kutei Basin	Merakes	East Kalimantan	Eni (65%), Pertamina (15%), Neptune Energy East Sepinggan BV (20%)	Production			Gas
Indonesia Deep Water Development	Gendalo - Gehem	East Kalimantan	Eni (20%), Chevron (63%)	Development	47,000	11	Gas & Condensate
Kutai West PSC	Kutai West PSC	East Kalimantan	CBM Asia (18%), Ephindo (27%), Newton Energy (55%)	Exploration			Gas
Lemang Block	Selong	Jambi	Jadestone Energy Inc (90%)	Production			Oil & Gas
Mahakam Hilir PSC	Sambutan, Naga Utara	East Kalimantan	Cue Energy (100%)	Surrendered			Oil & Gas
Masela Block	Abadi (Masela)	Maluku	Shell (35%), Inpex Corporation (65%)	Appraisal			Gas
North Sokang PSC	Dara	Riau Island	Black Platinum Energy (100%)	Appraisal		1.1	Gas
Nunukan PSC, Tarakan Basin	Badik, West Badik	North Kalimantan	Videocon Group (23.0%) Pertamina (64.5%), Bharat Petroleum Corporation (12.5%)	Development		0.6	Oil & Gas
South Sesulu PSC, Kutei Basin	South Sesulu PSC	East Kalimantan	Saka Energi (100%)	Exploation			Gas

Excluded from latest list

## パイプラインの主な石油・ガス田の一覧 - (3/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block A Aceh, North Sumatra Basin	Alur Rambong, Alur Siwah, Julu Rayeu, Matang	Aceh	Medo Energi (100%)	Production			Gas & Condensate
Block Cepu	Jambaran-Tiung Biru	East Java	Government of Central Java (9.2%), Pertamina (90.8%)	Production		3.3	Gas & Condensate
Block Kepala Burung PSC (Basin PSC)	North Klalin	West Papua	RH Petrogas (70%)	Development			Oil & Gas
Krueng Mane Block	Jambu Aye Utara	Aceh	Eni (100%)	Development		1.1	Oil & Gas
Lemang Block	Akatara	Jambi	Jadestone Energy Inc	Production	10,000		Oil & Gas
Natuna Block A PSC	Bison	Riau Island	Pertamina (11.5%), PTT Exploration and Production (11.5%), Petronas (15.0%), Premier Oil (28.7%), Kuwait Foreign Petroleum Exploration Company (33.3%)	Production			Gas
Natuna Block A PSC	Iguana	Riau Island	Pertamina (11.5%), PTT Exploration and Production (11.5%), Petronas (15.0%), Premier Oil (28.7%), Kuwait Foreign Petroleum Exploration Company (33.3%)	Production			Gas
Natuna Block A PSC	Gajah Puteri	Riau Island	Pertamina (11.5%), PTT Exploration and Production (11.5%), Petronas (15.0%), Premier Oil (28.7%), Kuwait Foreign Petroleum Exploration Company (33.3%)	Production			Gas
Abar Block	Abar Block	Jakarta & West Java	Pertamina (100)%	Discovery			Gas

## パイプラインの主な石油・ガス田の一覧 - (4/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Bunga Mas PSC, South Sumatra Basin	Bunga Mas PSC	South Sumatera	Andalas Energy	Discovery			Oil & Gas
East Jabung PSC	East Jabung PSC	Jambi	Repsol (51%), Pan Orient Energy (49%)	Surrendered (No oil)			Oil & Gas
Pabuaran Kerjasama Operasi Block	Pabuaran Kerjasama Operasi Block	West Java	Pertamina (5%), IEV Holdings (95%)	Discovery			Oil & Gas
South Block A	South Block A Kuda, Singa	Aceh	Peak Oil And Gas (59.3%), Lion Energy (40.7%)	Discovery			Oil & Gas
Tuna Block	Kuda, Singa Laut	Riau Island	Zarubezhneft	Development			Gas
Bentu PSC	Seng, Segat	Riau	Energi Mega Persada (100%)	Expansion		1	Gas
Block West Madura	Block West Madura	East Java	Kodeco Energy (20%), Pertamina (80%)	Expansion	27,000	1.7	Oil & Gas
Offshore Northwest Java PSC	Offshore Northwest Java PSC	Jakarta/West Java	Energi Mega Persada (36.7%), Risco Energy Investments (5.0%), Pertamina (58.3%)	Expansion	175,000	2.3	Oil & Gas
Rokan PSC	Duri	Riau	Pertamina	Expansion	300,000		Oil
Anggursi Block	Anggursi Block	West Java	Pertamina (100%)	Expansion			Oil & Gas
Arguni PSC, Bintuni Basin	Arguni PSC	West Papua	Eni (100%)	Expansion			Oil & Gas
Aru PSC	Aru PSC	Maluku	Statoil (40%), Ophir Energy (60%)	Expansion			Oil & Gas

Excluded from latest list

## パイプラインの主な石油・ガス田の一覧 - (5/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Aru Trough I License	Aru Trough I License	Maluku	Statoil (100%)	Exploration			Oil & Gas
Babar Selaru PSC	Babar Selaru PSC	Maluku	Pertamina (15%), Inpex Corporation (85%)	Exploration			Oil & Gas
Bala-Balakang PSC (formerly Tanjung Aru)	Bala-Balakang PSC (formerly Tanjung Aru)	West Sulawesi	Mandala Energy (85%)	Exploration			Gas
Batanghari Block	Batanghari Block	Jambi	China National Offshore Oil Corporation (100%)	Exploration			Oil & Gas
Block Air Benakat I	Block Air Benakat I	Jambi	Pertamina (79.5%), Sugico (20.5%)	Exploration			CBM
Block Air Benakat II	Block Air Benakat II	Jambi	Pertamina (69.7%), Sugico (30.3%)	Exploration			CBM
Block Air Benakat III	Block Air Benakat III	Jambi	Pertamina (73.5%), Sugico (26.5%)	Exploration			CBM
Block Ambalat, East Kalimantan	Block Ambalat	North Kalimantan	Eni (66.25%), Pertamina (33.75%)	Exploration			Oil & Gas
Block Bengkanai	Kerendan	Central Kalimantan	Medco Energi (100%)	Production			Gas
Block Cendrawasih VII	Block Cendrawasih VII	Papua	Medco Energi (100%)	Exploration			Oil & Gas
Block Cendrawasih VIII	Block Cendrawasih VIII	Papua	Medco Energi (100%)	Exploration			Oil & Gas
Block Muara Enim	Block Muara Enim	South Sumatera	NuEnergy Gas (40%), Pertamina (60%)	Exploration			CBM

## パイプラインの主な石油・ガス田の一覧 - (6/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block Muara Enim I	Block Muara Enim I	South Sumatera	Pertamina (65%), Sugico (35%)	Exploration			CBM
Block Muara Enim II	Block Muara Enim II	South Sumatera	Sugico (30%), NuEnergy Gas (30%), Pertamina (40%)	Exploration			CBM
Block Muara Enim III	Block Muara Enim III	South Sumatera	Pertamina (73%), Sugico (27%)	Exploration			CBM
Block Pulau Moa	Block Pulau Moa	Maluku	Shell (100%)	Exploration			Oil & Gas
Block Randugunting, Central & East Java	Block Randugunting,	Central Java	Pertamina (40%), Petronas (30%), PetroVietnam (30%)	Exploration			Oil & Gas
Block Semai I	Block Semai I	West Papua	Murphy Oil (28.3%)	Exploration			Oil & Gas
Block Suban I	Block Suban I	South Sumatera	Pertamina (58%)	Exploration			CBM
Block Suban II	Block Suban II	South Sumatera	Pertamina (50%)	Exploration			CBM
Block Tanjung II, South Kalimantan	Block Tanjung II	South Kalimantan	Pertamina (100%)	Exploration			CBM
Block West Glagah Kambuna, North Sumatera	Block West Glagah Kambuna	North Sumatera	Pertamina (40%)	Exploration			Oil & Gas
Block Wokam II	Block Wokam II	Maluku	Saka Energi (100%)	Exploration			Gas
Bohorok PSC	Bohorok PSC	North Sumatera	Blue Sky International (50%), Surya Buana Letarijaya (10%), New Zealand Oil & Gas (45%)	Exploration			Oil & Gas

## パイプラインの主な石油・ガス田の一覧 - (7/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Bone PSC	Bone PSC	South Sulawesi	AziPac (100%)	Exploration			Oil & Gas
East Seruway PSC, North Sumatra Basin	East Seruway PSC	Aceh	KrisEnergy (100%)	Exploration			Oil & Gas
Garung Block	Garung Block	South Kalimantan	Interra Resources (33.3%)	Exploration			Oil & Gas
Gurita PSC	Gurita PSC	Riau Island	Lundin Petroleum (90%), Nido Petroleum (10%)	Exploration			Oil & Gas
Halmahera-Kofiau PSC	Halmahera-Kofiau PSC	North Maluku/West Papua	Tately NV (20%), Ophir Energy (80%)	Exploration			Oil & Gas
Icewine Development	Icewine Development	NA	88 Energy (63.4%)	Exploration			Oil
Kofiau PSC	Kofiau PSC	West Papua	Ophir Energy (100%)	Exploration			Oil & Gas
Kuala Kurun Block	Kuala Kurun Block	Central Kalimantan	ConocoPhillips, Petronas	Exploration			Oil & Gas
Kutai II Block, East Kalimantan	Kutai II Block	East Kalimantan	RAIN Group (8%), Newton Energy (25%), Ephindo (67%)	Exploration			CBM
Kutai PSC	Kutai PSC	East Kalimantan	Orchid Kutai (22%), Ophir Energy (23.4%)	Exploration			Oil & Gas
Kutai Timur Block, East Kalimantan	Kutai Timur Block	East Kalimantan	Ephindo (100%)	Exploration			CBM
Mahato PSC	Mahato PSC	Riau	Cue Energy (12.5%), Arrow Energy (20.0%), Black Diamond Energy (67.5%)	Production			Oil & Gas
Mangkalihat PSC	Mangkalihat PSC	East Kalimantan	Samudra Energy (100%)	Exploration			Oil & Gas

## パイプラインの主な石油・ガス田の一覧 - (8/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Merangin III PSC, South Sumatra Basin	Merangin III PSC	South Sumatera	Mandala Energy (100%)	Exploration			Oil & Gas
North East Bangkanai PSC, Greater Kerendan	North East Bangkanai PSC	Central Kalimantan	Ophir Energy (100%)	Exploration			Gas
North Ganai PSC, Kutai basin	North Ganai PSC	East Kalimantan	Ophir Energy (18.5%), Eni (24.5%), Statoil (26%), Black Platinum Energy (18.5%), Engie (12.5%)	Exploration			Gas
North Madura II Block	North Madura II	East Java	Petronas (100%)	Exploration			Oil & Gas
North Madura PSC	North Madura PSC	East Java	AziPac (100%)	Exploration			Oil & Gas
Palmerah Baru Block	Palmerah Baru Block	South Sumatera	Blue Sky International (54%), Sarana Niaga Petrogas (10%), New Zealand Oil & Gas (36%)	Exploration			Oil & Gas
Rombebai PSC	Rombebai PSC	Papua	AED Oil (100%)	Exploration			Oil & Gas
Sakakemang Block	Sakakemang Block	South Sumatera	Repsol (90%)	Development			Oil & Gas
Sakti Block	Sakti Block	Central & East Java	KrisEnergy (95%), Golden Heaven Jaya (5%)	Exploration			Oil & Gas
Sebatik PSC, Tarakan Basin	Sebatik PSC	East Kalimantan	Star Energy Indonesia (100%)	Exploration			Oil & Gas
Sekayu PSC	Sekayu PSC	South Sumatera	Star Energy Indonesia (100%)	Exploration			Oil & Gas
Sokang PSC	Sokang PSC	Riau Island	Black Platinum Energy (100%)	Exploration			Oil & Gas

## パイプラインの主な石油・ガス田の一覧 - (9/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
South Bengara II PSC, Greater Tarakan Basin	South Bengara II PSC	East & North Kalimantan	Samudra Energy (97.85%)	Exploration			Oil & Gas
South East Tungal Block	South East Tungal Block	Jambi	Gujarat State Petroleum Corporation (50.5%), Essar (49.5%)	Exploration			Oil & Gas
South Sokang PSC	South Sokang PSC	Riau Island	Medco Energi (100%)	Exploration			Oil & Gas
Sumbagsel PSC, South Sumatra Basin	Sumbagsel PSC	South Sumatra	Mandala Energy (100%)	Exploration			Oil & Gas
Tanjung Lontar KSO, South Sumatra Basin	Tanjung Lontar KSO	South Sumatra	Samudra Energy (84%)	Exploration			Oil & Gas
Telen Block	Telen Block	East Kalimantan	Total (100%)	Exploration			Oil & Gas
Udan Emas PSC	Udan Emas PSC	West Papua	KrisEnergy (100%)	Exploration			Oil & Gas
Ujung Kulon Block	Ujung Kulon Block	Banten/West Java	M3nergy (100%)	Exploration			Oil & Gas
Wain Block	Wain Block	East Kalimantan	Pandawa Prima Lestari	Exploration			Oil & Gas
West Bangkanai PSC, Greater Kerendan	West Bangkanai PSC	Central Kalimantan	Saka Energi (30%), Ophir Energy (70%)	Exploration			Gas
West Jambi Block, Jambi Sub Basin	West Jambi Block	Jambi	Ramba Energy (100%)	Exploration			Oil & Gas
West Papua IV PSC	West Papua IV PSC	Maluku & West Papua	Ophir Energy (49.9%), Statoil (40%), Tately NV (10.1%)	Exploration			Oil & Gas
West Sebuku Block	West Sebuku Block	South Kalimantan	Mubadala Petroleum (75.5%), Inpex Corporation (24.5%)	Exploration			Oil & Gas

## パイプラインの主な石油・ガス田の一覧 – (10/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Block Bawean	Block Bawean	East Java	Prima Energy (100%)	Development			Oil
Block Gebong (Gebang JOB PSC)	Arbel, Anggor, Secanggeng, Gebang	North Sumatera	Energi Mega Persada (50%), Pertamina (50%)	Upgrade/EOR			Oil & Gas
Block Rimau	Kaji Semoga	Jambi	Perusahaan Daerah Pertambangan & Energi Sumsel (5%), MedcoEnergi (95%)	Upgrade/ EOR	68,000		Oil
Coastal Plains Pekanbaru Block	Kasikan, Zamrud, Pedada, Beruk	Riau	Bumi Siak Pusako (50%), Pertamina (50%)	Upgrade/ EOR	99.000		Oil
Meruap KSO, South Sumatra Basin	Meruap KSO	Jambi	Samudra Energy (100%)	Upgrade/ EOR			Oil
Pilona TAC, South Sumatra Basin	Arahan-Banjarsari, Sengkuang, Tanjung Lontar	South Sumatera	Samudra Energy (84%)	Upgrade/ EOR			Oil
Rokan PSC	Minas	Riau	Pertamina (100%)	Upgrade/ EOR	190,000		Light Oil
Tuna Gas Field	Tuna Gas Field	Riau Island	Harbour Energy (50%) Zarubezhneft (50%)	Development		115	Gas
Hidayah oil field	Hidayah oil field	East Java	Petronas (100%)	Development			Oil
Ketapang 2 Block	Ketapang 2 Block	East Java	Petronas	Development			Gas
IDD Ganal Field	IDD Ganal Field	East Kalimantan	Eni	Development		2.11	Gas
IDD Gendalo & Gehem	IDD Gendalo & Gehem	East Kalimantan	Eni	Development		8.67	Oil & Gas

## パイプラインの主な石油・ガス田の一覧 - (11/11)

Name	Field Name	Location	Companies	Status	Est. Peak Oil/ Liquid Range (b/d)	Est. Peak Gas Output (bcm)	Type of Project
Terubuk	Terubuk, Natuna	Riau Island	Medco Energi	Production			Oil & Gas
Rokan Block	Balam GS	Riau	Pertamina	Upgrade / EOR			Gas
Karamba	Karamba	East Kalimantan	Indosino	Appraisal			Gas
Mahakam Block	Mahakam	East Kalimantan	Pertamina (100%)	Expansion			Gas
South Senoro	South Senoro, Banggai	Central Sulawesi	Pertamina, Medco	Appraisal			Gas
Akasia Bagus	Akasia Bagus	West Java	Pertamina	Development			Oil & Gas
Bentu	Bentu	Riau	EMP Bentu	Production			Gas
A24	Natuna Sea, Block A24	Riau Island	Premier Oil	Appraisal			Gas
Mako	Mako	Riau Island	West Natuna Exploration Ltd	Development		1.24	Gas

## インドラマユ1GW石炭火力は中止となった一方で、バタン2,000MWなど他の超々臨界圧（USC）発電所計画は進行しており、インドネシアは大型USC発電所の建設を継続

### Clean Coal Technology (CCT) development

- CCT that can be adopted and implemented in Indonesia is Ultra Super Critical (USC) and Integrated Gasification Combined Cycle (IGCC) according to JICA study.
- Indonesia is still developing its USC infrastructure with Java-Bali 1GW power plant (PP) will be the first USC in Indonesia and is expected to be in operation by 2019, followed by 0.6GW
- Built Batang PP in 2022 (2 x 1,000 MW), now known as one of the largest USC power plants in SEA
- Sumatera 0.3-0.6GW PP remains as plans to be built


### Indonesia's plan of USC coal-fired power plant

No	Power Plant	Capacity (MW)	Open	Developer	Location
1	Steam pp Lontar Exp	1 x 315	2022	PLN	Banten
2	Steam PP Jawa Tengah	2 x 950	2019	IPP	Central Java
3	Steam pp Indramayu	1 x 1000	Cancel	PLN	East Java
4	Steam PP Jawa 1	1 x 660	2022	IPP	East Java
5	Steam PP Jawa 3	2 x 1000	2024	IPP	East Java
6	Steam PP Jawa 4	2 x 1000	2021	IPP	Central Java
7	Steam PP Jawa 5	2 x 1000	2019	IPP	Banten/East Java
8	Steam PP Jawa 7	2 x 1000	2019	IPP	Banten
9	Steam PP Jawa 8	1 x 1000	2018	IPP	Central Java
10	Steam PP Jawa 9	1 x 600	2025	IPP	Banten
11	Steam PP Sumsel 8	2 x 600	2023	IPP	South Sumatra
12	Steam PP Sumsel 9	1 x 600	2023	IPP	South Sumatra
13	Steam PP Sumsel 10	1 x 600	2023	IPP	South Sumatra

Excluded from latest list

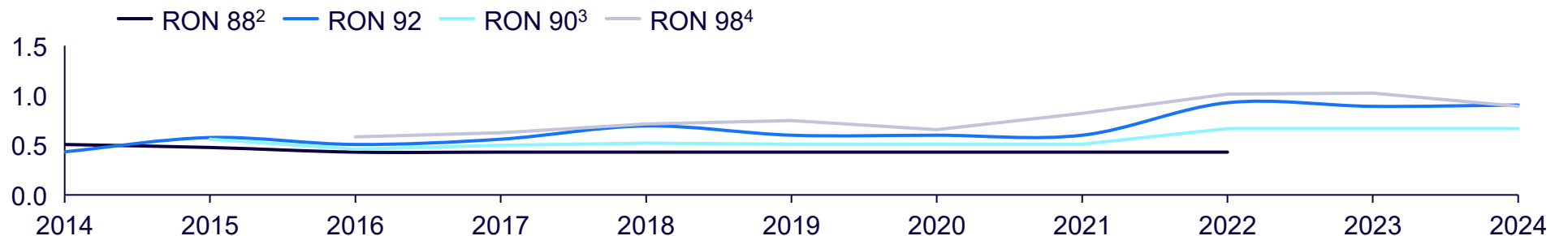
## インドネシアの原油価格は世界市況に強く影響され、供給過剰による2016年やCOVID-19の影響による2020年に大きく下落し、その後2022年に急騰し、近年は80ドル前後で推移

Indonesia crude oil prices have seen large volatility in the periods 2011-2021, with the sharpest drops being in 2015 due to supply factors including increased production in US, change in OPEC policy and 2020 (COVID-19 driven global price crash).

  
Official selling price of Crude Oil, (USD/barrel)

Crude Oil Type	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SLC	98.63	49.39	40.98	51.98	68.20	63.10	41.98	68.94	99.18	81.16	79.81
Arjuna	94.82	48.54	39.35	51.20	67.65	63.42	39.24	68.15	98.38	79.05	81.55
Attaka	97.96	51.20	41.82	52.86	69.78	65.14	40.07	69.45	99.27	80.05	78.90
Cinta	96.83	48.22	40.00	50.59	66.65	61.79	40.27	66.81	97.47	79.45	79.33
Duri	94.67	47.60	37.63	49.47	65.76	64.75	48.69	73.84	107.15	86.47	84.23
Widuri	97.03	48.44	40.13	50.76	66.82	61.99	40.82	67.75	98.02	80.00	83.88
Belida	99.63	52.62	43.44	53.33	70.25	64.87	39.89	69.64	99.42	80.09	78.96
Senipah Condonsate	98.25	52.92	43.15	53.31	69.57	58.99	39.35	69.90	91.70	71.44	71.18
Average <sup>1</sup>	96.51	49.21	40.13	51.19	67.47	62.37	40.30	68.47	97.03	78.43	78.12

Petrol Retail Selling Price (USD/Litre)<sup>1</sup>



Note:1) Prices are based on the Pertamina latest annual updates for the Jakarta metropolitan area, converted to USD at an exchange rate of 1:15,000; 2) RON 88 production ceased on January 1, 2023; 3) RON 90 fuel was first launched in May 2015; 4) RON 98 fuel was first launched in August 2016

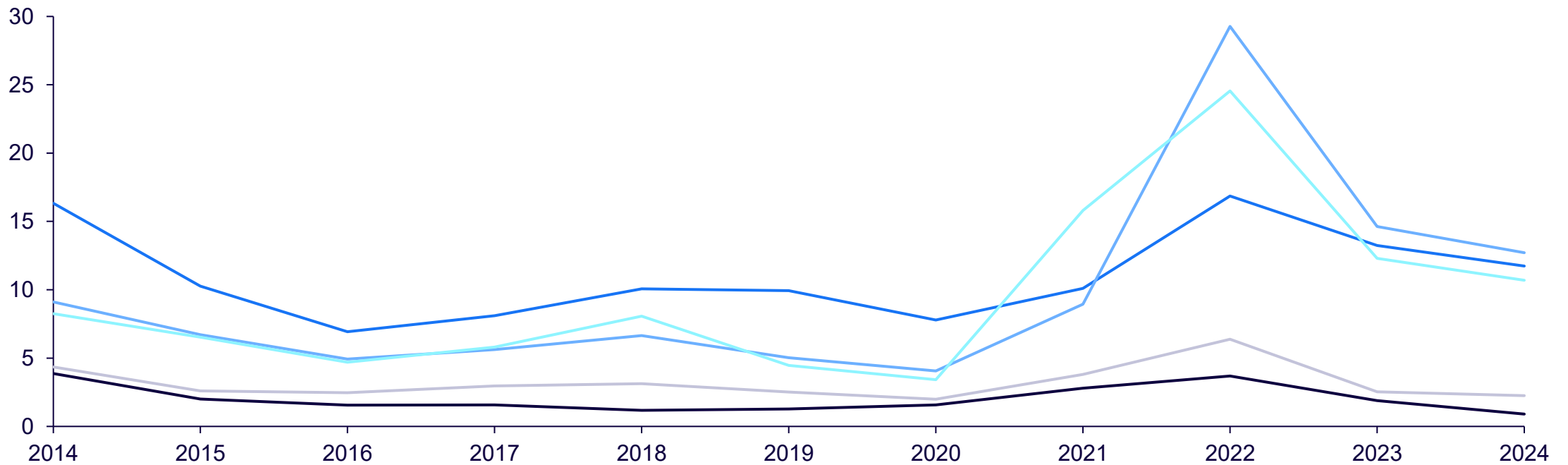
Source: Indonesia Ministry of Energy and Mineral Resources Statistical Handbook 2024, World Bank 2023, Secondary Resources, Arthur D. Little analysis

天然ガス価格は2014～20年に低下した後、ロシアのウクライナ侵攻に伴い22年に急騰（特に欧州・日本で顕著）した一方、米国・カナダは一貫して相対的に低水準で推移

Official selling price of natural gas

2014-2024, USD/MMBTU

— CIF JAPAN\* — Average German Import Price — UK (Heren NBP Index) — USA (Henry Hub) — Canada (Alberta)



Note: \*Price of LNG

Source: Energy Institute Statistical Review of World Energy 2025, German Federal Statistical Office – Destatis, Government of Alberta, Arthur D. Little analysis

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10. 電力需給状況

## ガス送配管はBPH Migas認可の”自然独占”インフラで島嶼国ゆえ全国網は断片的。送ガスはPertagas・PGN・TGIの3社が担い、配ガスはPGNが最大だが事業自体は複数社に開放

### Regulation of natural gas transmission pipeline



Transmission or distribution of gas by pipeline **requires approval from the downstream regulator, BPH Migas**, which grants licenses only for specific pipelines in commercial regions.



**Transmission pipelines are considered by government to be a natural monopoly**, and Law 22 imposes the requirement for open access. Otherwise, no requirement is placed on operators of pipelines and storage facilities to expand their projects to accommodate third-party access.



Gas transportation by pipeline in Indonesia is regulated under Government Regulation No. 36 of 2004 (“GR 36”) regarding Upstream Oil and Natural Gas Business Activities and has been amended by Government Regulation No. 30 of 2009 and Ministry of Energy and Mineral Resources (“MEMR”) Regulation No. 19 of 2009 regarding **Natural Gas Business through Pipelines, and is controlled by the Downstream Oil and Gas Regulatory Agency (“BPH Migas”)**

### Natural gas transmission & distribution network & operators



The Indonesian natural gas pipeline network is comprised of a number of fragmented point-to-point grid systems, which transport gas between supply sources and large consumers or demand centres. Most pipeline networks are unconnected, as the country is composed of more than 17 000 islands and natural gas production is located on several islands.



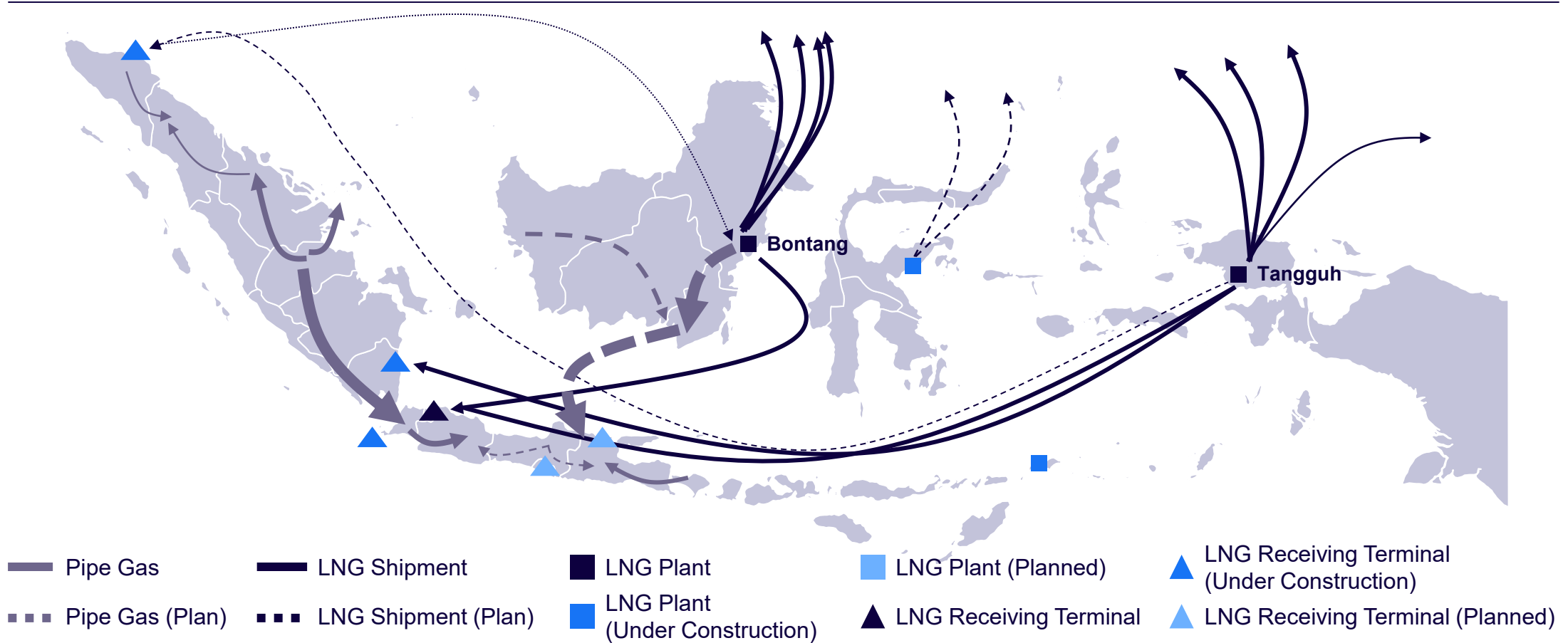
Indonesia has **three large gas transmission system operators (TSOs), two of which, PGN and Pertagas, are state-owned**. A third, **Transportasi Gas Indonesia (TGI)**, which is owned 60% by PGN and 40% by a consortium of ConocoPhillips, Petronas, Talisman Energy and Singapore Petroleum, owns and operates two transmission pipelines. Pertagas operates 42% of the country’s transmission system network, followed by PGN (28%) and TGI (27%).



**PGN dominates the natural gas distribution network**. It operates a natural gas pipeline distribution network of more than 12,087 km, supplying natural gas to power plants, industry, the commercial sector and households. **Nonetheless, the distribution of natural gas is fully open with 19 distribution system operators in the Java and Sumatra regions**

ボンタン／タングー等のLNGプラントを起点に、受入基地・FSRUとパイプライン／船舶輸送を組み合わせることで島嶼間にガスを供給し、各地の新設・計画案件でネットワーク拡張中

### Gas Transmission Network in Indonesia



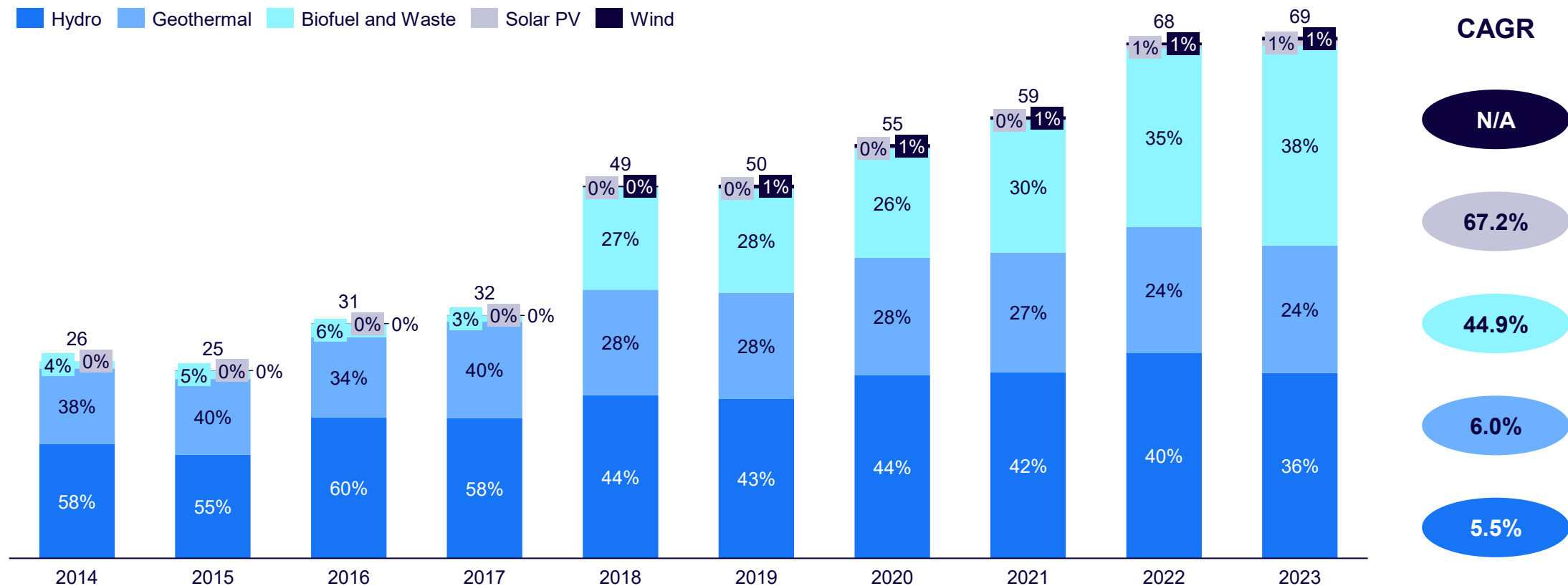
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10. 電力需給状況

過去10年で再エネ発電量は着実に拡大。水力が最大シェアを保ちながら比率は低下する一方、太陽光とバイオ燃料・廃棄物が高成長で伸長。地熱は微増で風力は依然限定的

### Renewable energy mix

2012 – 2023, GWh



## インドネシアの地熱資源は計約2.37万MWあり、主力はスマトラ（約9.8GW）とジャワ（約7.9GW）、続いてスラウェシ・ヌサトゥンガラ・マルクが中心となっている

### Geothermal potential, by region

2024, MW

No	Island	Potential Energy (MW)					Total
		Resources		Reserve			
		Speculative	Hypothetical	Possible	Probable	Proven	
1	Sumatra	2161	1561	3859	815	1387	9783
2	Java	1129	1304	3401	299	1765	7898
3	Bali	70	21	104	110	30	335
4	Nusa Tenggara	219	134	655	199	34	1241
5	Kalimantan	166	18	6	0	0	190
6	Sulawesi	1359	333	1130	108	150	3080
7	Maluku	515	80	507	36	2	1140
8	Papua	75	0	0	0	0	75
	<b>Total</b>	<b>5694</b>	<b>3451</b>	<b>9662</b>	<b>1567</b>	<b>3368</b>	<b>23742</b>

- Transmission or distribution of gas by pipeline **requires approval from the downstream regulator, BPH Migas**, which grants licences only for specific pipelines in commercial regions.
- **Transmission pipelines are considered by government to be a natural monopoly**, and Law 22 imposes the requirement for open access. Otherwise, no requirement is placed on operators of pipelines and storage facilities to expand their projects to accommodate third-party access.
- **Geothermal Law:** Power plants encouraged to be built by IPP with auction process for geothermal working areas (WKP). New plants must not sacrifice steam supply of existing plants.

## 地熱発電量はKOBフィールドが安定的に最大シェアを占める一方、ソリックマラピヤルムットバライなど新規開発が加わり、総発電量は約138千トンへと拡大

### Geothermal power generators, by region

2014-2024, Thousands Tonnes

Field Name	Area	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Pertamina Field	Kamojang	10,489	11,974	12,679	12,522	14,305	13,534	13,123	13,869	13,147	13,331	14,094
Pertamina Field	Sibayak	184	-	-	-	-	-	-	-	-	-	-
Pertamina Field	Lahendong	4,138	4,693	3,295	6,059	5,525	6,628	6,694	6,143	6,785	7,056	7,196
Pertamina Field	Ulubelu	6,174	6,044	6,718	10,187	9,923	11,290	11,753	11,733	11,192	12,143	11,782
Pertamina Field	Karaha	-	-	-	-	1,334	1,192	789	733	725	794	981
Pertamina Field	LumutBalai	-	-	-	-	-	193	3,138	3,252	3,191	3,385	3,508
KOB Field	Salak	24,307	24,755	24,575	24,655	24,820	22,511	22,785	23,836	23,273	24,772	24,054
KOB Field	Darajat	13,856	13,916	13,952	13,871	12,722	13,055	14,224	13,929	13,903	14,110	11,964
KOB Field	Wayang Windu	13,143	7,850	13,613	13,526	13,222	12,972	13,695	13,552	13,784	13,518	13,845
KOB Field	Sarulla	-	-	-	4,877	13,593	11,683	11,503	12,747	13,146	11,832	11,550
PT PLN (Persero) Field	Ulumbu	261	382	339	610	545	679	707	774	692	705	653
PT PLN (Persero) Field	Mataloko	-	41	-	-	-	-	-	-	-	-	-
PT Geo Dipa Energy Field	Dieng	205	1,770	1,393	2,835	2,511	2,570	2,711	2,639	2,515	2,564	3,226
PT Geo Dipa Energy Field	Patuha	840	2,837	3,153	2,947	2,967	3,003	3,028	2,994	3,045	3,388	3,461
PT Sorik Marapi Geothermal Power	Sorik Marapi	-	-	-	-	-	649	2,401	3,569	8,196	6,071	17,278
PT Supreme Energy	Muara Laboh	-	-	-	-	-	197	4,366	4,533	4,719	4,617	4,478
PT Supreme Energy	Rantau Dadap	-	-	-	-	-	-	-	338	5,051	4,376	3,812
PT Sokoria Geothermal Indonesia	Sokoria	-	-	-	-	-	-	-	-	223	355	622
<b>Total</b>		<b>73,597</b>	<b>74,262</b>	<b>79,717</b>	<b>92,089</b>	<b>101,467</b>	<b>100,156</b>	<b>110,917</b>	<b>114,641</b>	<b>123,587</b>	<b>123,017</b>	<b>132,504</b>

## インドネシアの地熱発電プロジェクト候補地一覧(1/5)

### Geothermal potential, by region

2025

No	Name	Province	Output (MW)	No	Name	Province	Output (MW)
1	G. Gouroudong	Aceh	55	16	Lawang Malintang	West Sumatera	20
2	Jaboi Ekspansi	Aceh	50	17	Koto Sani Tanjung Binkung	West Sumatera	40
3	Seulawah	Aceh	55	18	Graho Nyabu #1	Jambi	100
4	Sarulla II #1	North Sumatera	50	19	Sungai Penuh #2	Jambi	55
5	Sarulla II #2	North Sumatera	110	20	Sungai Penuh Two Phase Binary	Jambi	10
6	Sibayak #2	North Sumatera	30	21	Lumut Balai BU #1	South Sumatera	10
7	Sibayak #3	North Sumatera	40	22	Lumut Balai BU #2	South Sumatera	10
8	Sibayak #4	North Sumatera	40	23	Lumut Balai Low Pressure	South Sumatera	20
9	Sibayak BU	North Sumatera	5	24	Lumut Balai Ext.B Margabayur	South Sumatera	55
10	Sibayak Reactivation	North Sumatera	20	25	Lumut Balai Extension D	South Sumatera	10
11	Simbolon Samosir	North Sumatera	55	26	Tanjung Sakti	South Sumatera	20
12	Bonjol #1	West Sumatera	30	27	Hululais Bottoming Unit # 1	Bengkulu	30
13	Bonjol #2	West Sumatera	30	28	Hululais Bottoming Unit	Bengkulu	30
14	Gunung Talang - Bukit Kili	West Sumatera	20	29	Hululais Ext.A3 (Bukit Daun South)	Bengkulu	20
15	Gunung Tandikat & Singgalang	West Sumatera	20	30	Hululais Ext.A4 (Bukit Daun South)	Bengkulu	35

## インドネシアの地熱発電プロジェクト候補地一覧(2/5)

### Geothermal potential, by region

2025

No	Name	Province	Output (MW)	No	Name	Province	Output (MW)
31	Hululais Ext.B (Tambang Sawah)	Bengkulu	20	46	Kamojang Extension	West Java	35
32	Hululais Ext.C (Bt. Beriti)	Bengkulu	55	47	Gunung Ciremai 1	West Java	25
33	Hululais Extension #A / Bukit Daun A	Bengkulu	30	48	Gunung Galunggung # 1	West Java	55
34	Ulubelu Bottoming Unit	Lampung	30	49	Gunung Galunggung #2	West Java	55
35	Ulubelu Low Press	Lampung	10	50	Papandayan	West Java	20
36	Ulubelu Ext. (Gunung Tiga) #	Lampung	55	51	Patuha #5	West Java	55
37	Ulubelu EXt. (Gunung Tiga) #2	Lampung	15	52	Patuha #6	West Java	55
38	Sekincau	Lampung	110	53	Patuha #7	West Java	35
39	Way Ratai	Lampung	55	54	Patuha #8	West Java	35
40	Gunung Endut	Banten	40	55	Tampomas	West Java	30
41	Cisolok Cisukarame	West Java	40	56	Candradimuka	Central Java	40
42	Cipanas #1	West Java	25	57	Mangunan Wanayasa	Central Java	10
43	Cipanas #2	West Java	25	58	Guci	Central Java	20
44	Kamojang Low Pressure	West Java	5	59	Jenawi	Central Java	55
45	Kamojang / Masigit	West Java	55	60	Umbul Telumoyo	Central Java	45

## インドネシアの地熱発電プロジェクト候補地一覧(3/5)

### Geothermal potential, by region

2025

No	Name	Province	Output (MW)	No	Name	Province	Output (MW)
61	Arjuno Welirang	East Java	60	76	Rongkong #1	South Sulawesi	20
62	Gunung Wilis #1	East Java	20	77	Rongkong #2	South Sulawesi	20
63	Gunung Wilis #2	East Java	20	78	Bora Pulu	Central Sulawesi	40
64	Gunung Pandan	East Java	60	79	Sembalun	West Nusa Tenggara	10
65	Iyang Argopuro	East Java	55	80	Nage	East Nusa Tenggara	40
66	Songgoriti	East Java	55	81	Waesano	East Nusa Tenggara	30
67	Toka Tindung	North Sulawesi	40	82	Wapsalit #1	Maluku	10
68	Lahendong #7	North Sulawesi	20	83	Wapsalit #2	Maluku	10
69	Lahendong #8	North Sulawesi	20	84	Gunung Hamiding #1	North Maluku	20
70	Lahendong #9	North Sulawesi	25	85	Gunung Hamiding #2	North Maluku	140
71	Lahendong Bottoming Unit #1	North Sulawesi	15	86	Gunung Hamiding #3	North Maluku	110
72	Lahendong Bottoming Unit #2	North Sulawesi	10	87	Gunung Hamiding #4	North Maluku	110
73	Lahendong Bottoming Unit #3	North Sulawesi	10	88	Jailolo	North Maluku	20
74	Lahendong Low Pressure	North Sulawesi	15	89	Telaga Ranu	North Maluku	40
75	Lahendong Extension	North Sulawesi	20	90	Rongkong #1	South Sulawesi	20

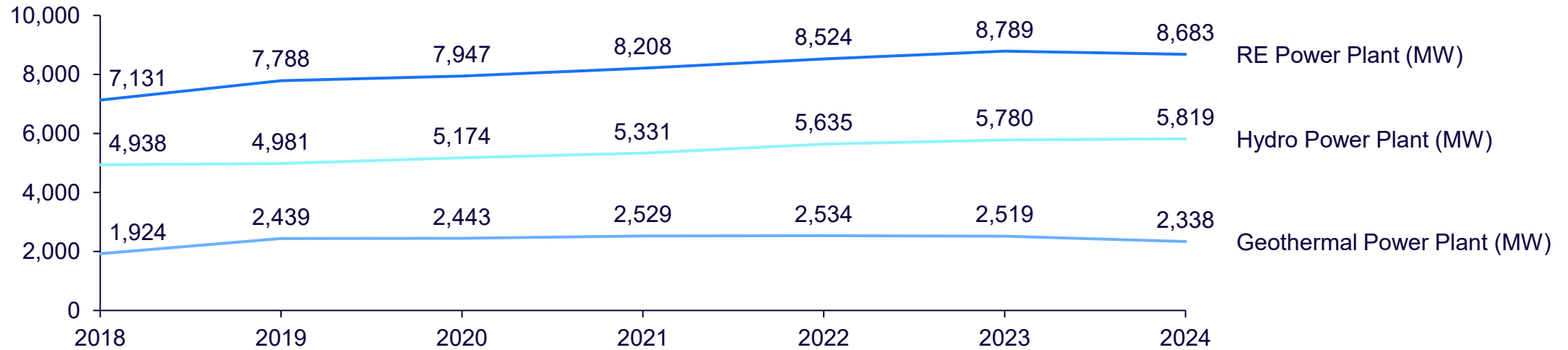
インドネシアのクリーン・テクノロジー・ファンド（CTF）は、電化率100%を目標に、エネルギー効率の高い再生可能エネルギー・プロジェクトを支援することを目的とする

Capacity	Main Financer	Co-financer	Impact	How CTF is used
<b>Geothermal power plant projects</b>				
1	260MW geothermal power plant	Pertamina Geothermal Energy	World Bank	<ul style="list-style-type: none"> <li>• Subsidize the difference in cost between geothermal power and fossil-based power</li> <li>• Reduce risk of early-stage geothermal exploration &amp; field development</li> </ul>
2	250 MW	PT. Perusahaan Listrik Negara (PLN)	ADB	
3	300 MW	Private sector participation	International Finance Corporation & ADB	
4	55 MW	GeoDipa	ADB	
<b>Renewable energy projects</b>				
~	Varies (all biomass projects are preferred)	Varies	Varies	<ul style="list-style-type: none"> <li>• Increase access to financing for SMEs</li> <li>• Recover risk premium of EE/RE investments</li> <li>• Direct lending to large end-users of EE/RE to reduce cost of financing</li> <li>• Technical/advisory services</li> </ul>

## 2024年のインドネシア再エネ設備容量は8,683MWで水力が67%を占め、1,040MWの上チソカン揚水式発電所が建設中で2027年運転開始予定



Installed Capacity of RE Power Plant Indonesia (MW)

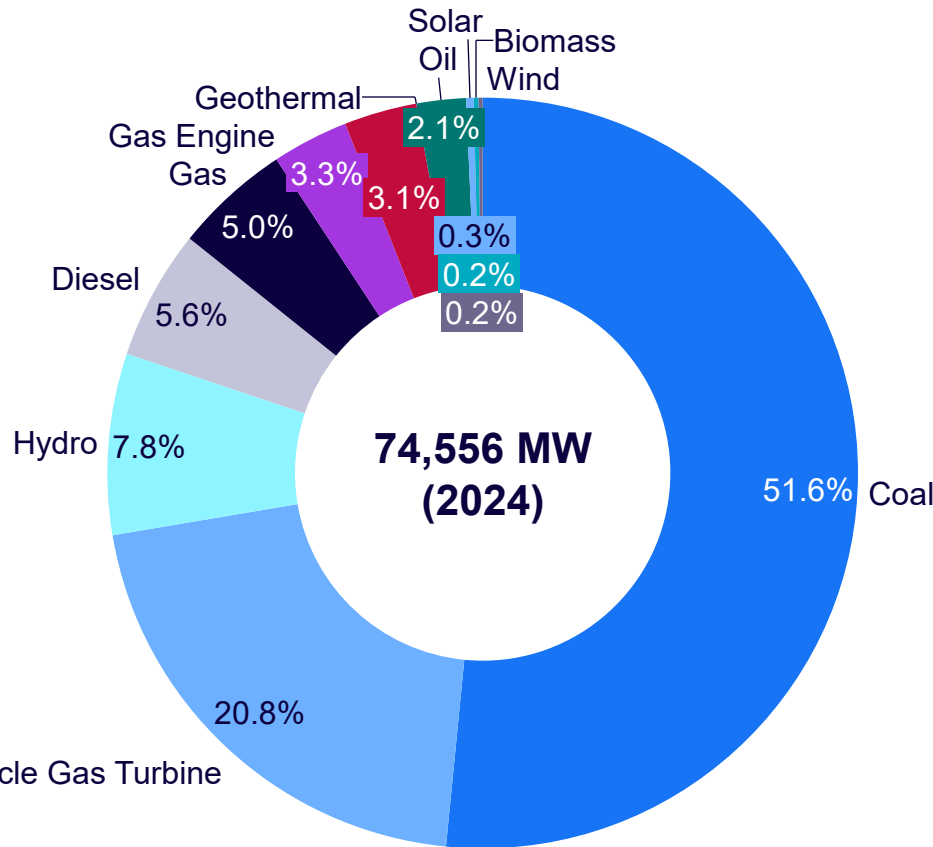


- Hydropower accounts for 67% of Indonesia’s installed renewable energy capacity in 2024 and contributes 39% to the country’s total installed power generation capacity.**
- The largest project currently under construction is the **1,040 MW Upper Cisokan plant**, Indonesia’s first **pumped storage PP** located in western Java, under construction since 2015. The project is a JV between **Daelim, Astaldi Group and Wika**. The project, with an estimated cost of USD 800 million, is supported by a USD 640 million loan from the World Bank and is scheduled to be operational by 2027. As of 2024, one of the two dams has been completed and 43 households in the Cisokan area had been relocated to make way for the development.

**インドネシアの総発電設備容量は74,556MWで石炭が約52%と最大。次いでガス21%・水力8%が続く。2023年には東南アジア最大の浮体式太陽光（192MW）が運転を開始**

**Total installed electricity generation capacity**

2024, MW



- **MEMR regulation 5/2025** establishes a dedicated framework for renewable power projects' PPAs (including hydro), separate from conventional power plants. This brings tailored rules on tariffs, contract terms, risk allocation, and project implementation guarantees, which help in reducing administrative hurdles and negotiation delays.
- In 2023, Indonesia inaugurated **Southeast Asia's largest floating solar power plant**—a 192 MWp facility located at the Cirata Reservoir, spanning three regencies in West Java. The plant is expected to generate 245 million kWh of clean electricity annually, sufficient to power over 50,000 households and reduce carbon emissions by more than 200,000 tons per year.

## インドネシアにおける水力発電のポテンシャル一覧

### Hydropower Potential

2025, MW

Region	Hydro (Reservoir)	Mini hydro (Natural in-flow)	Total
Java, Madura, and Bali	1,545	719	2,264
Sumatera, Kalimantan	16,462	1,544	18,007
Sulawesi, Maluku, Papua, Nusa Tenggara	7,917	485	8,402
<b>Total</b>	<b>25,925</b>	<b>2,749</b>	<b>28,674</b>

### COMMENTS



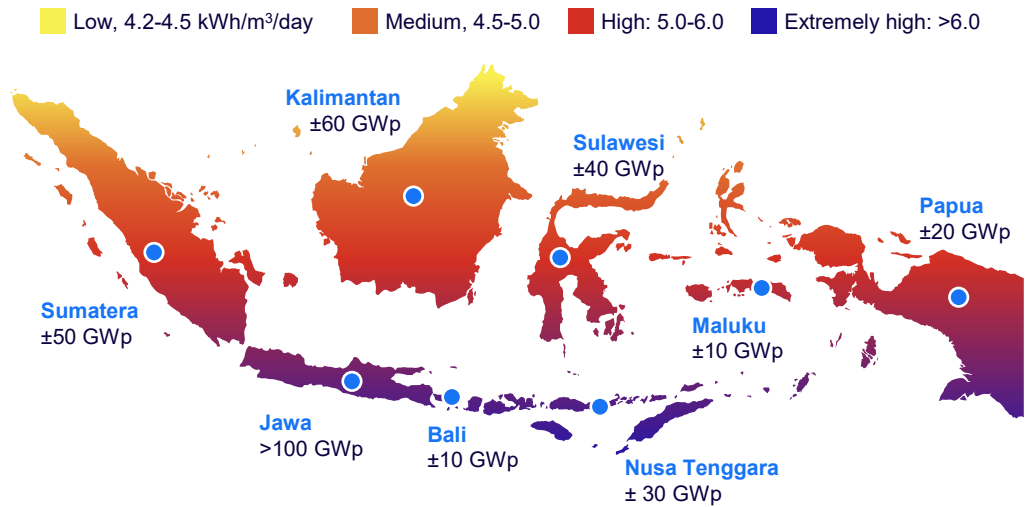
- Total mix of hydro potential is ~28.7 GW, with 25.9 from large-scale hydro (reservoir-based) and 2.8 from mini-hydro (natural in-flow)
- **Of the total potential, only 11.7 GW are scheduled for development by 2034**
- Sumatra has the biggest underdeveloped hydro resources despite its abundance in long rivers (i.e., Musi, Batang Toru, Kapuas, etc.) and **PLN** is currently developing hydro grid around these areas, aiming for operation to start in 2025

## 2025年時点でインドネシアの太陽光発電ポテンシャルはジャワが最大。スマトラ・カリマンタンも重点地域とされ、ジャティルフルやウォノソボなど複数の新規案件が計画



### List of potential solar project areas in Indonesia

2025



Name	Location	Potential	Capacity (MW)
Gajah Mungkur (Wonogiri)	Java	New Build	100
Sutami	Java	New Build	100
Jatiluhur	Java	New Build	100
Mrica	Java	New Build	60
Saguling	Java	New Build	60
Wonorejo	Java	New Build	122
Singkarak	Sumatera	New Build	50
Kedung Ombo	Java	New Build	100
Toba	Sumatera	New Build	90
Tanjung Redep	Kalimantan	New Build	N/A
Koto Panjang	Java	New Build	N/A
Jati Gede	Java	New Build	100

- **Solar project viability depends on regional sun exposure; Java leads with an estimated potential of more than 100 GWp**, making it the primary focus for current solar development initiatives in Indonesia
  - Bali, Nusa Tenggara, and Papua with high exposure are less explored due to limited infrastructure and geographical challenges. If resolved properly, these areas can present significant opportunities for future investment and expansion of solar projects
- **The current RUPTL 2024–2034 prioritizes solar capacity growth in Java, Sumatera, and Kalimantan**, aiming for 0.082 GW new solar build in Indonesia

## インドネシアの風力発電ポテンシャル地域とプロジェクト候補リスト(1/2)

### Wind energy potential, by region

2022, MW

		50m Hub Height	100m Hub Height
1	Aceh	1104.5	1211.1
2	Bali	71.5	20.9
3	Banten	0.0	0.0
4	Bengkulu	0.0	0.0
5	DI Yogyakarta	0.0	0.0
6	DKI Jakarta	0.0	0.0
7	Jambi	0.0	0.0
8	Jawa Barat	780.3	418.6
9	Jawa Tengah	444.4	185.3
10	Jawa Timur	488.2	205.3
11	Kalimantan Barat	0.0	0.0
12	Kalimantan Selatan	120.4	86.7
13	Kalimantan Tengah	0.0	0.0
14	Kalimantan Timur	0.0	0.0
15	Kalimantan Utara	0.0	0.0
16	Kepulauan Bangka Belitung	0.0	0.0
17	Kepulauan Riau	36.2	0.0
18	Lampung	70.4	0.0
19	Nusa Tenggara Barat	183.8	34.5
20	Papua	1085.2	161.4
21	Papua Barat	0.0	0.0
22	Riau	0.0	0.0
23	Sumatra Barat	11.9	0.0
24	Sumatra Selatan	15.9	0.0
25	Sumatra Utara	246.2	38.4

### Wind energy potential power plants, by region

2025, Capacity in MW

#	Name	Location	Capacity	COD Target	Status
1	Bayu Sumatera	Aceh	55	2026	Planning
2	Tanah Laut	South Kalimantan	70	2026	Procurement
3	Banten	Banten	100	2028	Planning
4	Bayu Sumatera (Quota) Distributed	Bengkulu	270	2033	Planning
5	Jawa - Bali (Quota) Distributed III	Banten	300	2034	Planning
6	Jawa - Bali (Quota) Distributed II	Banten	300	2030	Planning
7	Jawa - Bali (Quota) Distributed IV	Banten	600	2034	Planning
8	Jawa - Bali (Quota) Distributed I	West Java	150	2026	Planning
9	Jawa - Bali (Quota) Distributed II	West Java	75	2031	Planning
10	Jawa - Bali (Quota) Distributed III	West Java	150	2032	Planning
11	Jawa - Bali (Quota) Distributed IV	West Java	200	2031	Planning
12	Jawa - Bali (Quota) Distributed V	West Java	200	2031	Planning
13	Jawa - Bali (Quota) Distributed I	Central Java	60	2031	Planning
14	Jawa - Bali (Quota) Distributed II	Central Java	50	2032	Planning
15	Jawa - Bali (Quota) Distributed III	Central Java	50	2032	Planning
16	Jawa - Bali (Quota) Distributed IV	Central Java	100	2031	Planning
17	Jawa - Bali (Quota) Distributed V	Central Java	200	2032	Planning
18	Jawa - Bali (Quota) Distributed VI	Central Java	200	2032	Planning
19	Jawa - Bali (Quota) Distributed VII	Central Java	200	2032	Planning
20	Jawa - Bali (Quota) Distributed I	Yogyakarta	50	2033	Planning
21	Jawa - Bali (Quota) Distributed II	Yogyakarta	200	2032	Planning
22	Jawa - Bali (Quota) Distributed III	Yogyakarta	100	2033	Planning
23	Jawa - Bali (Quota) Distributed IV	Yogyakarta	100	2033	Planning
24	Jawa - Bali (Quota) Distributed II	East Java	80	2030	Planning
25	Jawa - Bali (Quota) Distributed I	East Java	100	2033	Planning

## インドネシアの風力発電ポテンシャル地域とプロジェクト候補リスト(2/2)

### Wind energy potential, by region

2022, MW

Textbook	50m Hub Height	100m Hub Height
26 Nusa Tenggara Timur	4933.0	5943.8
27 Sulawesi Utara	0.0	0.0
28 Sulawesi Tengah	15.2	0.0
29 Sulawesi Selatan	8732.7	6525.0
30 Sulawesi Tenggara	2.1	0.0
31 Gorontalo	65.1	9.7
32 Sulawesi Barat	107.2	0.0
33 Maluku	6391.7	4857.6
34 Maluku Utara	20.9	0.0
Total	24926.8	19698.3

### Wind energy potential power plants, by region

2025, Capacity in MW

#	Name	Location	Capacity	COD Target	Status
26	Jawa - Bali (Quota) Distributed IV	East Java	200	2030	Planning
27	Jawa - Bali (Quota) Distributed V	East Java	200	2030	Planning
28	Jawa - Bali (Quota) Distributed III	East Java	200	2030	Planning
29	Jawa - Bali (Quota) Distributed VII	East Java	100	2031	Planning
30	Jawa - Bali (Quota) Distributed VI	East Java	100	2031	Planning
31	Jawa - Bali (Quota) Distributed VIII	East Java	100	2032	Planning
32	Jawa - Bali (Quota) Distributed X	East Java	200	2033	Planning
33	Jawa - Bali (Quota) Distributed XI	East Java	200	2033	Planning
34	Jawa - Bali (Quota) Distributed XII	East Java	200	2033	Planning
35	Jawa - Bali (Quota) Distributed IX	East Java	200	2033	Planning
36	Sulbagut (Quota) Distributed	North Sulawesi	60	2029	Planning
37	Sulbagut (Quota) Distributed Additional	North Sulawesi	20	2029	Planning
38	Sulbagesel (Quota) Distributed Additional	South Sulawesi	200	2028	Planning
39	Sulbagesel (Quota) Distributed Additional II	South Sulawesi	300	2033	Planning
40	Ambon (Quota) Distributed	Maluku	30	2031	Planning
41	Maubesi	East Nusa Tenggara	3.3	2029	Planning
41	Lombok (Quota) Distributed		30	2027	Planning

- Wind energy capacity has grown significantly from 25.5 MW in 2018 to 131.1 MW in 2023, marking a 414% increase over a short period
- Despite numerous projects in the pipeline and potential identified, wind energy development is largely hampered by low wind velocity, high investment cost, permits and land acquisition. Permitting and land acquisition complications remains as challenges in developing wind farm project. As an example, Samas Wind Farm Project 50MW, a joint development project of PT. UPC Renewables Indonesia and PT. Binatek Energy Terbarukan, was unable to meet the PPA's financial close deadline due to those reasons

## インドネシアのバイオマス発電所プロジェクト一覧

### Biomass power plants

No	Province	District/City	System	Project	COD	Capacity (MW)
1	West Kalimantan	Mempawah	Connected grid	Siantan	2018	15
2	Central Kalimantan	Kotawarigin	Connected grid	Kerabu	2019	10
3	West Sumatra	Mentawai	Mini grid (for villages)	Siberut	2019	0.7
4	Bangka Belitung	Taobali	Connected grid	Sadai	2024	10
5	West Kalimantan	N/A	Connected grid	Tersebar	Development stage; 2025	16
6	Southeast Maluku	Manyeuw	Connected grid	Ohoi	Development stage; 2027	10
7	Central Maluku	Amahai	Connected grid	Amahai	Development stage; 2027	6
8	South Maluku	Aru Islands	Connected grid	Dobo	Development stage; 2027	10
9	Southeast Maluku	Tanimbar	Connected grid	Saumlaki	Development stage; 2027	10

輸送用バイオ燃料政策では2050年までにバイオディーゼル=30%、バイオエタノール=20%、バイオアブタール（バイオ航空燃料）=10%を目標に、供給量を大幅に増やす計画

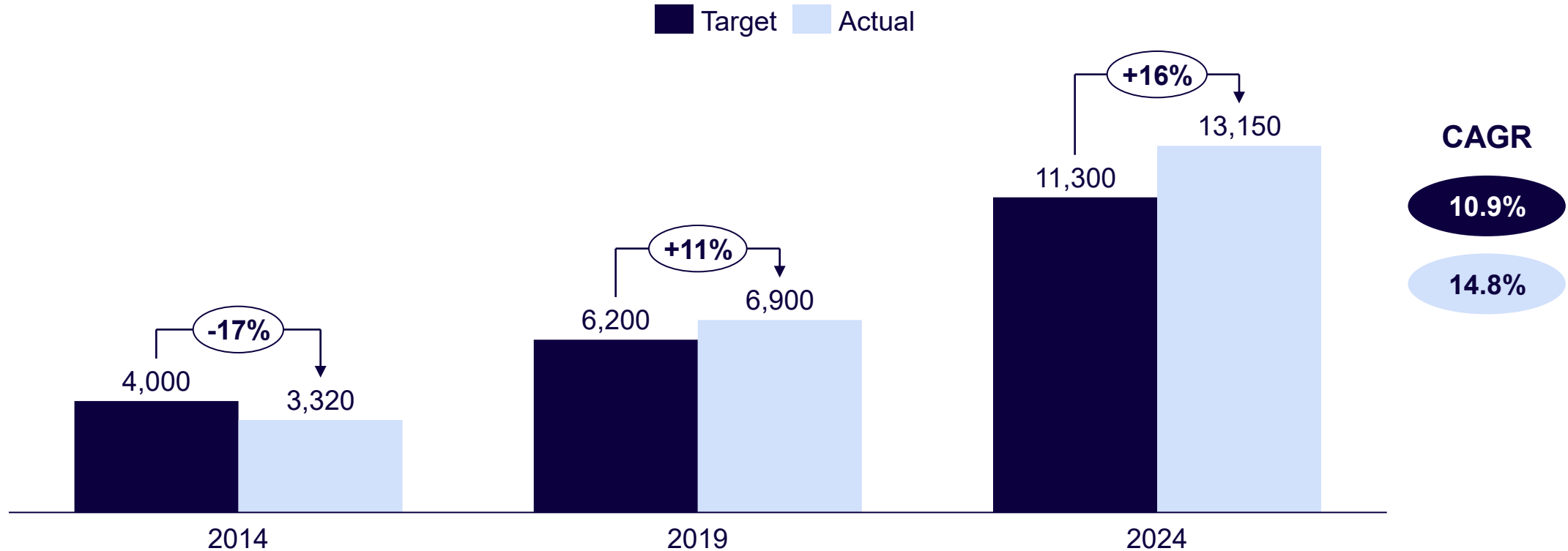
Biofuel provisions for transportation sector  
2016 - 2050

		2016	2025	2050	COMMENTS 
Biodiesel	Blend rate (%)	20	30	30	
	Volume (Bn liter)	2.5	6.9	17.1	
Bioethanol	Blend rate (%)	5	20	20	
	Volume (Bn liter)	0.1	2.6	11.4	
Bioavtur	Blend rate (%)	2	5	10	
	Volume (Bn liter)	0.0	0.1	2.7	

**インドネシアのバイオ燃料供給は2014年を除き常に政府目標を上回り、2019年は目標比+11%、2024年は+16%と実績が超過。2019～2024年のCAGRは14.8%に達する見込み**

**Tracking target and realization of national biofuel roadmap**

2019 – 2024, Thousand Kiloliters



# バイオディーゼル製造プラントはスマトラ、カリマンタン、ジャワに集中している



## Installed capacity of biodiesel plants, by region

2021

### SUMATERA UTARA

- 1 PT. Musim Mas (Medan) | 459,770 KL
- 2 PT. Permata Hijau Palm Oleo | 417,214 KL

### SUMATERA BARAT

- 3 PT. Padang Raya Cakrawala | 413,793 KL

### RIAU

- 4 PT. Sari Damai Oleo | 413,793 KL

- 5 PT. Intibenua Perkasatama | 442,529 KL

- 6 PT. Ciliandra Perkasa | 287,356 KL

- 7 PT. Pelita Agung Agrindustri | 229,885 KL

- 8 PT. Pelita Agung Agrindustri | 568,966 KL

- 9 PT. Sari Dumai Sejati | 689,655 KL

- 10 PT. Wilmar Bioenergi Indonesia | 1,603,448 KL



### LAMPUNG

- 11 PT. LDC Indonesia | 482,759 KL

- 12 PT. Tunas Baru Lampung | 1,005,747 KL

### KEPULAUAN RIAU

- 13 PT. Musim Mas (Batam) | 896,552 KL

### BANTEN

- 14 PT. Multimas Nabati Asahan | 568,966 KL

### JAWA BARAT

- 15 PT. Sinarmas Bio Energy | 455,400 KL

### JAWA TIMUR

- 16 PT. Batara Elek Semesta Terpadu | 780,459 KL

- 17 PT. Willmar Nabati Indonesia | 2,250,000 KL

- 18 PT. Eco Prima Energi | 579,310 KL

### KALIMANTAN SELATAN

- 19 PT. SMART Tbk | 1,132,758 KL

- 20 PT. Jhonlin Argo Raya | 568,966 KL

### KALIMANTAN TENGAH

- 21 PT. Sukajadi Sawit Mekar | 402,299 KL

### KALIMANTAN TIMUR

- 22 PT. Kutai Refinery Nusantara | 1,143,247 KL

- 23 PT. Energi Unggul Persada | 1,403,448 KL

### KALIMANTAN BARAT

- 24 PT. Energi Unggul Persada | 910,345 KL

### SULAWESI UTARA

- 25 PT. Multi Nabati Sulawesi | 475,862 KL

# インドネシアは2025年までに越境・エネルギー分野外を含むCCUS活動を規制する明確な政策を整備し、CCS/CCUS導入を国家戦略として推進している CCUSに関わる動向

インドネシアのCCUS導入に対する意向	
CCUS事業の推進に対する意向	<ul style="list-style-type: none"> <li>近年導入された規制は、カーボンニュートラル目標を支援することを目的としており、政府はCCSを重要な手段として推進することでそのコミットメントを示している。</li> </ul>
各種政策 (産業/エネルギー/環境)	<ul style="list-style-type: none"> <li>再エネ導入を導入するものの石炭火力依存は継続するため、CCS導入を目指す意向あり</li> <li>CO2削減の手段としてCCSの重要性を言及しており、産官学連携でCCS技術開発や事業化に向けて取り組みを強化</li> <li>インドネシアは、15件以上のCCS/CCUSプロジェクトを調査・準備段階で進めており、国際投資や協力が進展を加速させている。2023年に設立された国家CCS/CCUSタスクフォースの支援の下、国際・インドネシアCCSフォーラムを通じて、インドネシアはアジア太平洋地域における潜在的なCCSハブとしての地位を目指している。</li> </ul>
規制	<ul style="list-style-type: none"> <li>インドネシアは、包括的かつ多層的なCCS規制フレームワークを整備しており、これには大統領令14/2024、エネルギー・鉱物資源省規則16/2024、同省規則2/2023、及びSKK Migas PTK-070が含まれる。</li> </ul>
補助金	<ul style="list-style-type: none"> <li>稼働時の直接補助金、クレジット制度、税額控除に関しては2023年~2024年に制度設計図る方針</li> </ul>
CCUS事業の反対活動	<ul style="list-style-type: none"> <li>CCSを国民があまり認知しておらず、現時点では具体的な反対意見は出ていない</li> </ul>

インドネシアでの事業参入における有望手段	
CCUS事業の意思決定者におけるパワーバランス	<ul style="list-style-type: none"> <li>CoE*が中核となりCCS戦略、規制、補助金政策の策定を行う</li> </ul>
CCUS事業の意思決定者に対する働きかけ	<ul style="list-style-type: none"> <li>インドネシアにおけるCCS推進上の課題を踏まえた際、CCSHUBの構築支援、地下構造が複雑な立地向けのCO2貯留技術の提供、CCSに関する共同研究や現地技術者への専門知識の共有が有効と想定</li> </ul>

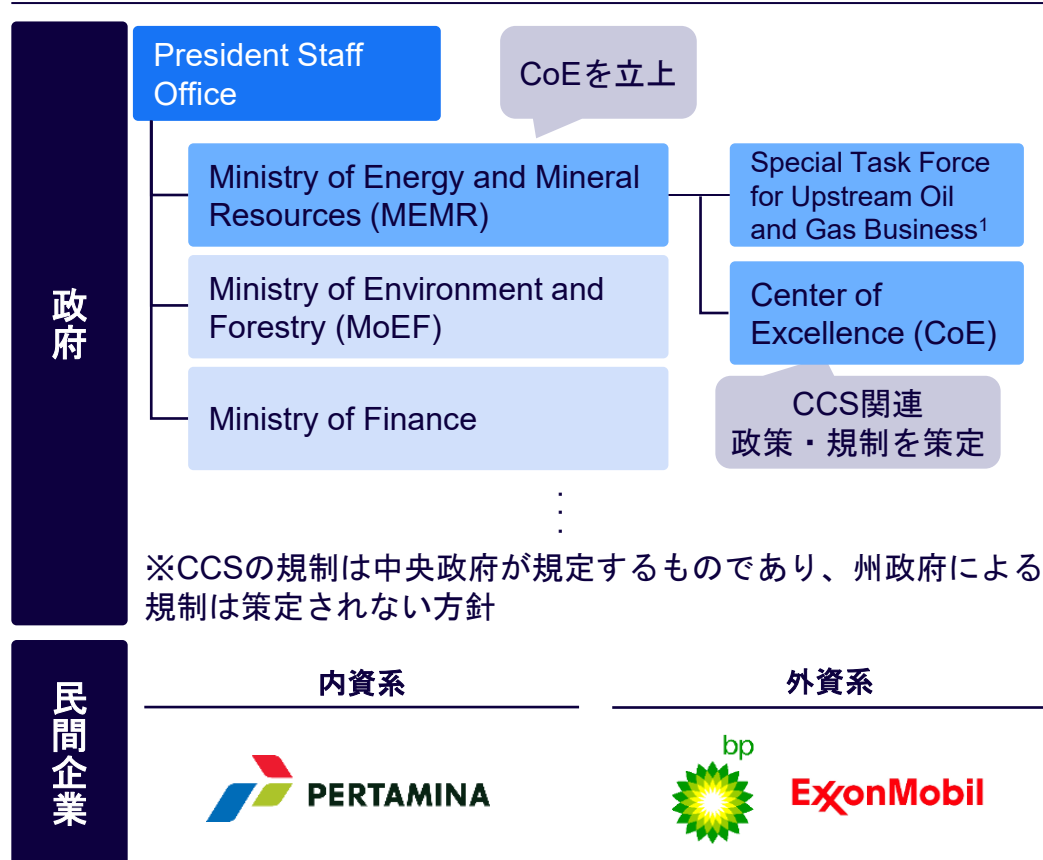
\*CoE : National Center of Excellence (CoE) for CCS and CCUS (政府、研究機関、民間企業によって結成された組織)

Source : IEEJ, BPK RI, Ministry of Energy and Mineral Resources, Indonesian Chamber of Commerce and Industry, Various Secondary sources、各種二次情報よりADL作成

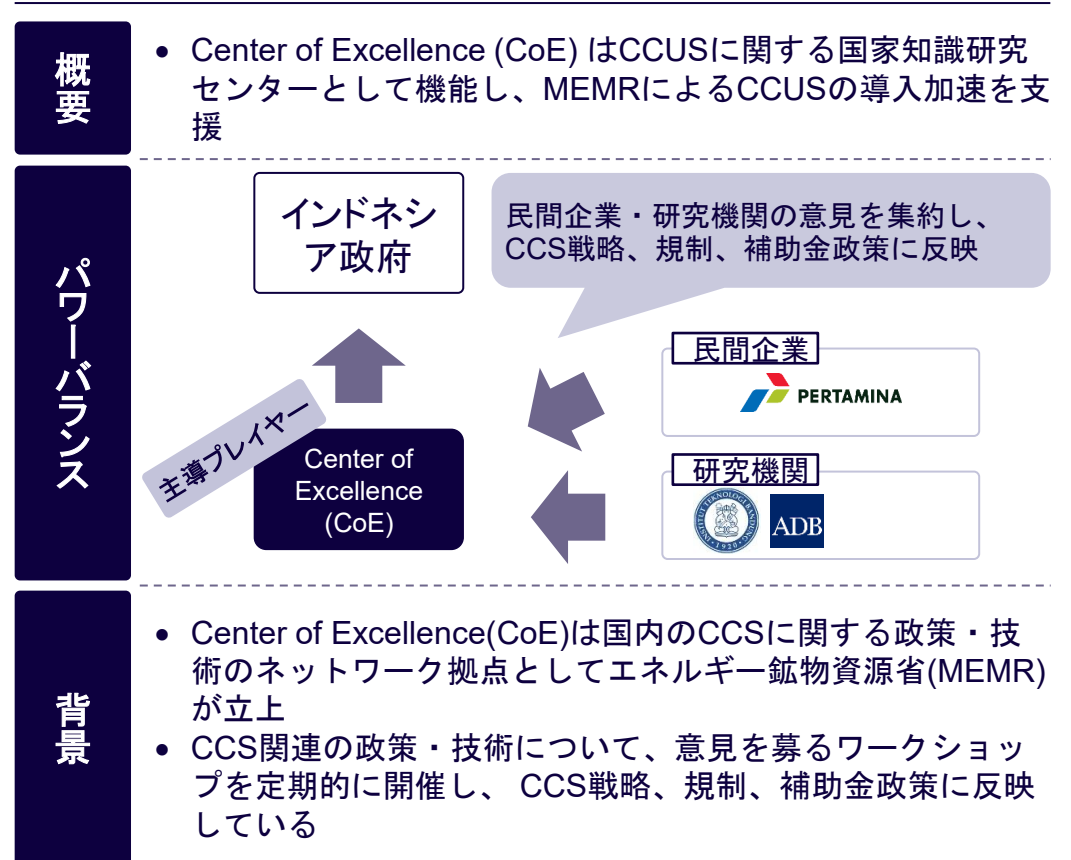
# MEMRはインドネシアにおけるCCUS政策立案を主導し、産業界や研究機関（CoE）との連携を通じて戦略、規制、インセンティブを設定

## CCS関連プレイヤー

政策意思決定者



## CCSプロジェクトにおけるパワーバランス



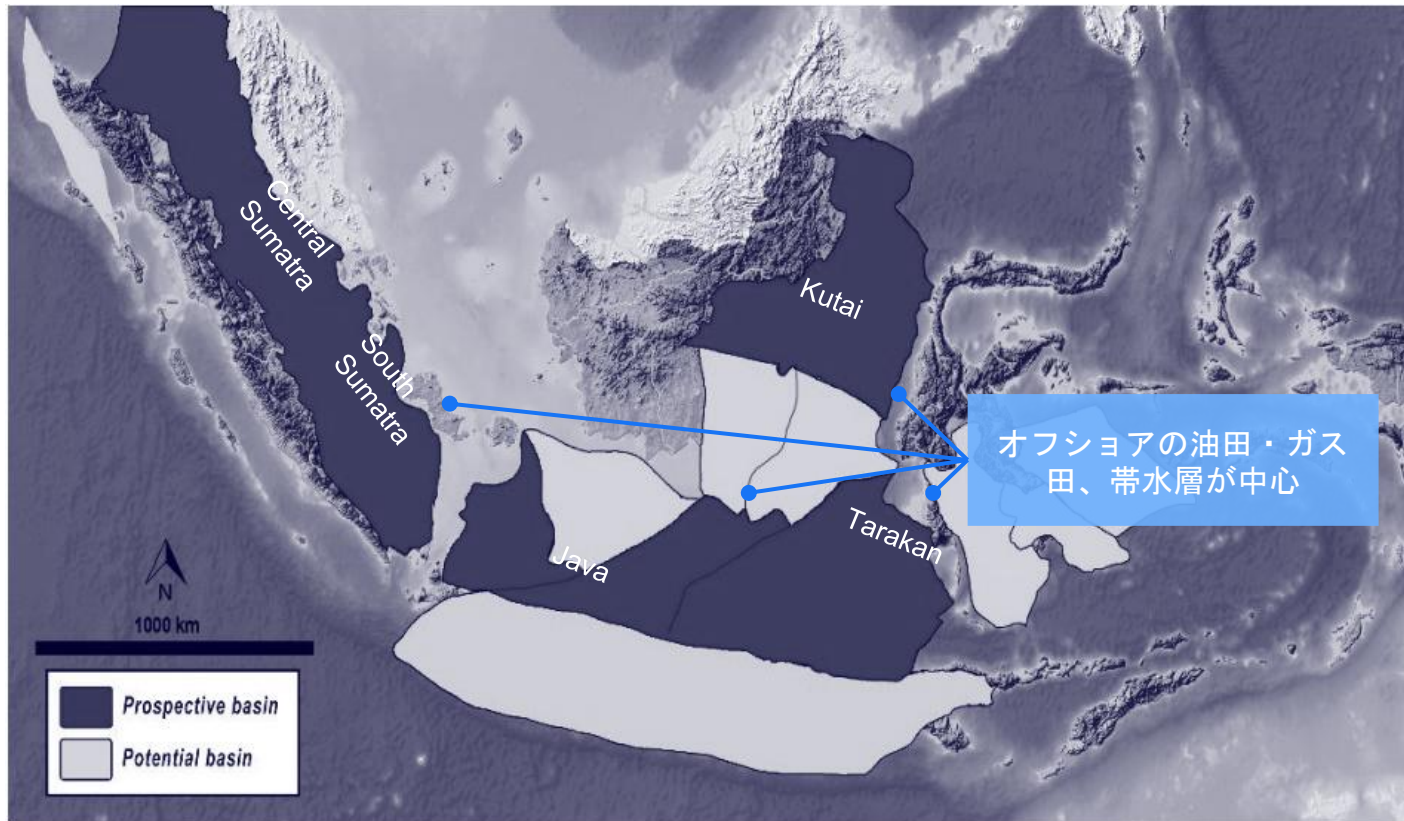
Note: 1) SKK Migas

出所：出所：National Center of Excellence (CoE) for CCS and CCUS HP及びGCCSI "The Emergence of CCS in Malaysia and Indonesia (2022年4月) より

# インドネシアにはオフショアの帯水層やガス田、油田の近くを中心に90-100GtonのCO2貯留ポテンシャルが存在



## インドネシアのCCS適地



### COMMENTS



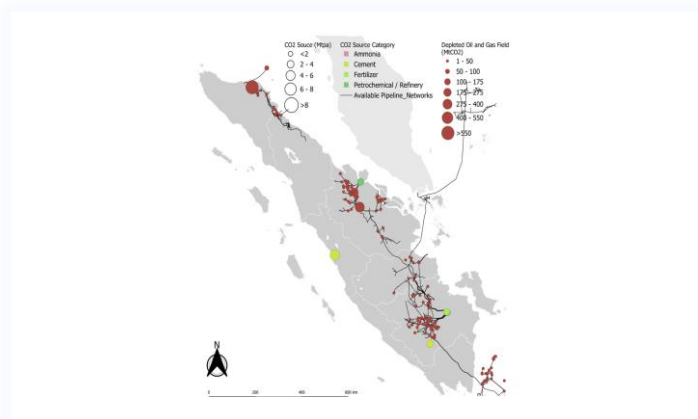
- 90-100GtonのCO2貯留ポテンシャルが存在
- 貯留可能地域は開発済み、または既に枯渇したオフショアのガス田や油田の近くに存在

#### 【主要なCCS適地の貯留ポテンシャル】

- South Sumatra: 874 ~1,278 mn tons
- Central Sumatra: 229 mn tons
- Kutai: 8,000 mn tons
- Java: 386 mn tons
- Tarakan: 130 mn tons

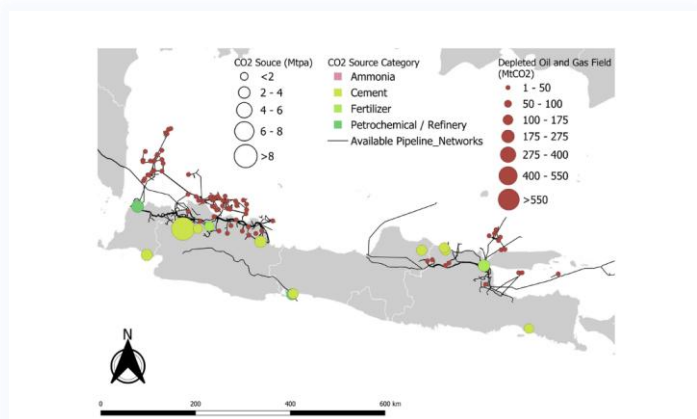
# スマトラが豊富な排出源・枯渇油ガス田・パイプ網によりCCUS適性が高くジャワは中程度のポテンシャルながらインフラ整備進行中。カリマンタンは短期開発には課題が大きい

Sumatra



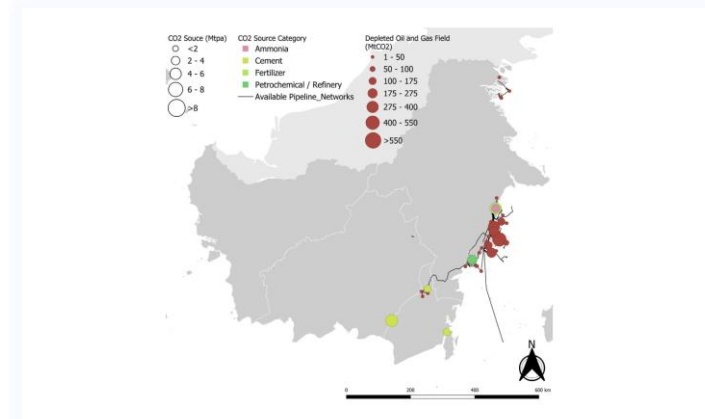
- High concentration of large CO2 emission sources, primarily from ammonium, cement, fertilizer and petrochemical products
- Numerous depleted oil and gas fields with significant CO2 storage capacity, especially in central and southern Sumatra
- Extensive pipeline network connecting emission sources and storage sites, **indicating strong potential for CCUS**

Java



- Concentrated CO2 emissions mainly from industrial sectors like fertilizer, cement, and petrochemical products
- Several depleted oil and gas fields, moderate potential for CO2 storage
- Pipeline infrastructure is still limited. **However, major projects (i.e., Cisem II gas transmission pipeline) are underway and expected to fully connect East and West Java by 2026**

Kalimantan



- Few CO2 emission sources detected with limited depleted oil and gas fields available, resulting to smaller potential for CO2 storage compared to other regions
- **Minimal pipeline network indicates challenges for CCUS development in near-term** due geological instability and operational challenges

## インドネシアの既存のCCUSプロジェクトのほとんどはまだ開発の初期段階にある

### Current CCS and CCUS Project in Indonesia (1/3)

No	Projects	Conducted By	Status	Onstream Target Schedule	CO2 Stored Potential
1	Tanggung EGR/CCUS	BP Berau Ltd.	<ul style="list-style-type: none"> <li>FEED preparation</li> <li>Pre-feasibility study has been conducted</li> <li>POD Ubadari and Vorwata EGR/CCUS has been approved</li> </ul>	2026	25 mn ton CO2 for 10 years
2	Gundih CCUS/CO2-EGR	Pertamina, CoE ITB, JGC, J-Power, JANUS & supported by METI Japan	<ul style="list-style-type: none"> <li>Pre-FEED study</li> </ul>	Pilot Test 2026-2027	N/A
3	Sukowati CO2-EOR	Pertamina, LEMIGAS, JAPEX & supported by METI Japan	<ul style="list-style-type: none"> <li>Pre-FEED study</li> <li>Subsurface study by Pertamina</li> <li>Study CO2-EOR as CCUS by Pertamina, LEMIGAS, JAPEX &amp; METI Japan</li> </ul>	Full scale; 2030	14 mn ton CO2 for 15 years
4	CCS Sakamekang	Repsol Sakamekang BV	<ul style="list-style-type: none"> <li>Internal discussion</li> </ul>	2027	30 mn ton CO2 for 15 yrs
5	Abadi CCS/CCUS	Inpex Masela Ltd.	<ul style="list-style-type: none"> <li>Pre-feasibility study</li> </ul>	-	70 mn ton of native CO2 by 2025

## インドネシアの既存のCCUSプロジェクトのほとんどはまだ開発の初期段階にある

### Current CCS and CCUS Project in Indonesia (2/3)

No	Projects	Conducted By	Status	Onstream Target Schedule	CO2 Stored Potential
6	CCS Joint Study for Clean Fuel Ammonia Production in Central Sulawesi (Matindok)	PT. Panca Amara Utama, JOGMEC, Mitsubishi & ITB	<ul style="list-style-type: none"> <li>Pre-feasibility Study</li> </ul>	2024/2025	10 mn ton CO2 for 20 years
7	East Kalimantan CCS/CCUS Study	PT. Kaltim Parna Industri & ITB	<ul style="list-style-type: none"> <li>Pre-feasibility study completed</li> <li>No updates on next steps</li> </ul>	-	10 mn ton CO2 for 10 years
8	Study of CCUS for Coal to DME	PT. Pertamina (Persero) & ITB	<ul style="list-style-type: none"> <li>Pre-feasibility study completed</li> <li>No updates on next steps</li> </ul>	-	13- 65 mn ton CO2 for 10 years, depend on scenarios
9	Arun CCS/CCUS	ODIN Reservoir Consultants & PEMA	<ul style="list-style-type: none"> <li>Preparing for joint feasibility study</li> </ul>	2028	-
10	Ramba CCUS	PT. Pertamina (Persero)	<ul style="list-style-type: none"> <li>Subsurface study</li> <li>MRV<sup>1</sup> modelling</li> </ul>	2030	-

Note: Measurement, Reporting, and Verification

Source: Eria Feasibility Study on CCS Pilot Project in Indonesia 2024, Carbon Limits, Arthur D. Little analysis

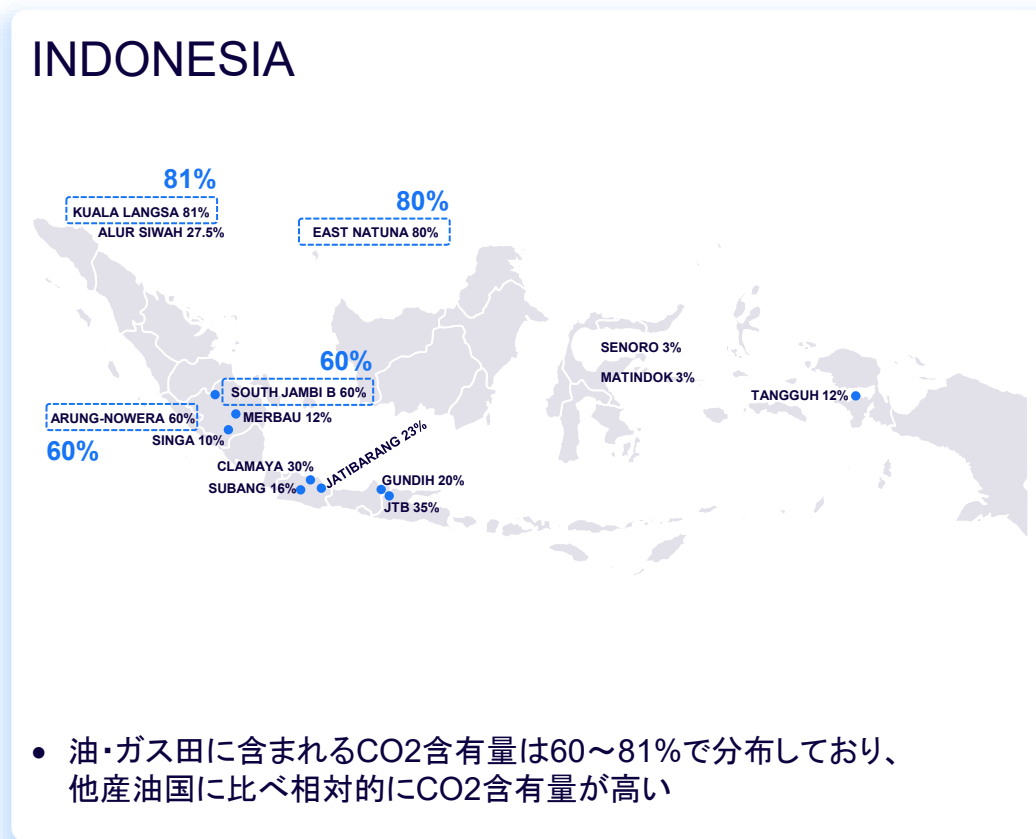
## インドネシアの既存のCCUSプロジェクトのほとんどはまだ開発の初期段階にある

### Current CCS and CCUS Project in Indonesia (3/3)

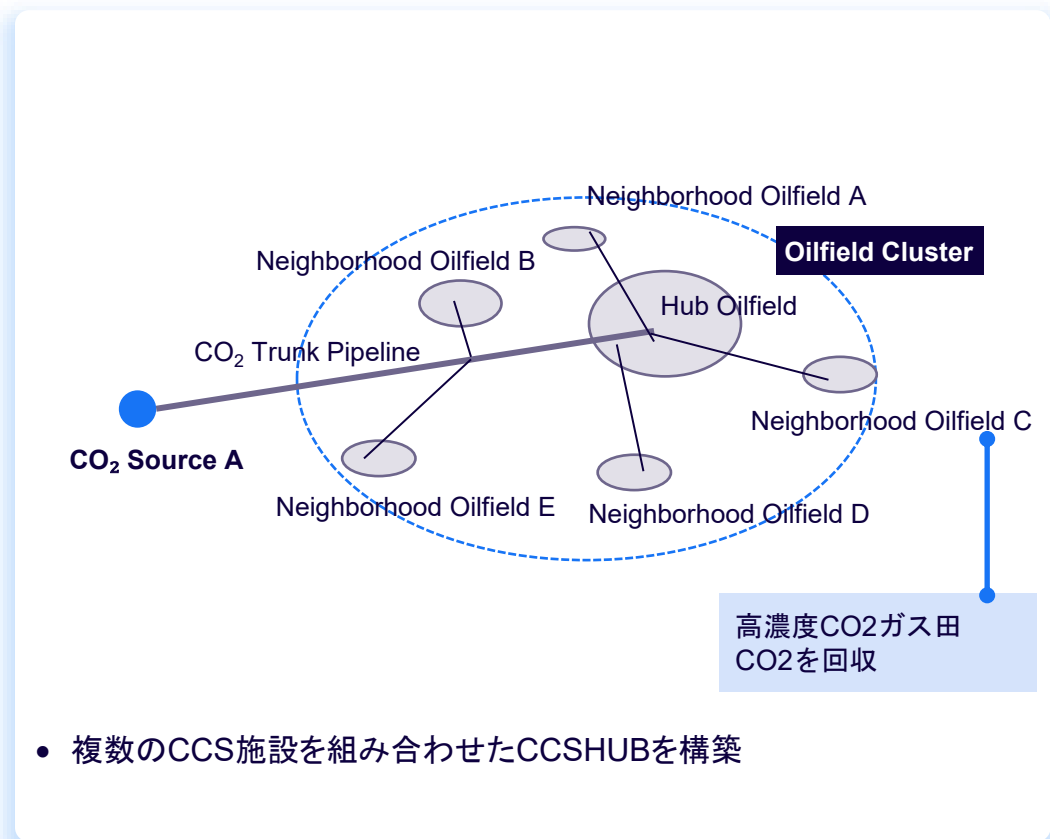
No	Projects	Conducted By	Status	Onstream Target Schedule	CO2 Stored Potential
11	CO2 Huff and Puff Gemah	PetroChina Jabung	• Field Trial	2031	-
12	CO2 Huff and Puff Jatibarang	PT. Pertamina (Persero) & JOGMEC	• Pilot project	2032	-
13	Central Sumatera Basin CCS/CCUS Hubs	PT. Pertamina (Persero) & Mitsui	• Data requirement preparation	2030	-
14	Asri Basin CCS/CCUS Hubs	PT. Pertamina (Persero)	• Subsurface evaluation	2030	-
15	Kutai Basin CCS Hub	PT. Pertamina (Persero) & Chevron	• N/A	2030	-
16	CCU to Methanol RU V Balikpapan	PT. Pertamina (Persero) & Air Liquide	• Feasibility Study	2030	1.44 million ton/year from H2 plant

# 高濃度CO2ガス田の開発のため、複数のCCS施設を組み合わせたCCSHUBを構築を行う必要がある

## インドネシアの高濃度CO2ガス田地帯



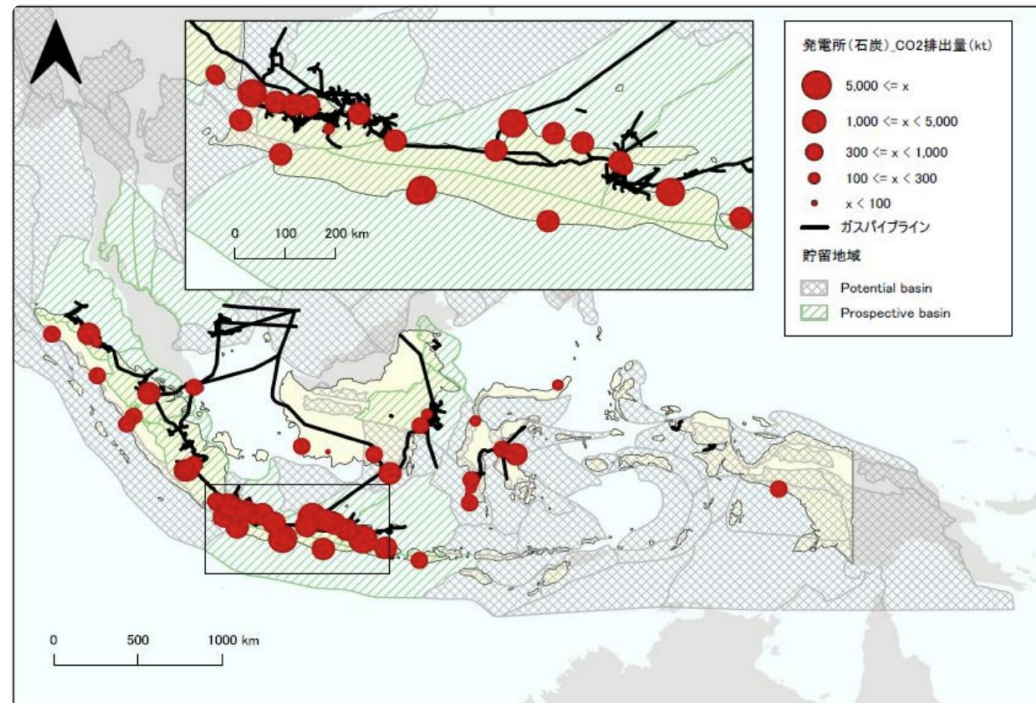
## 複数のCCS施設を組み合わせたCCSHUBを構築



# インドネシアの石炭火力発電所は主にジャワ島に集中し、年間CO<sub>2</sub>排出量5,000kt超の大規模設備も多い一方、天然ガス火力発電所も同島に多く立地

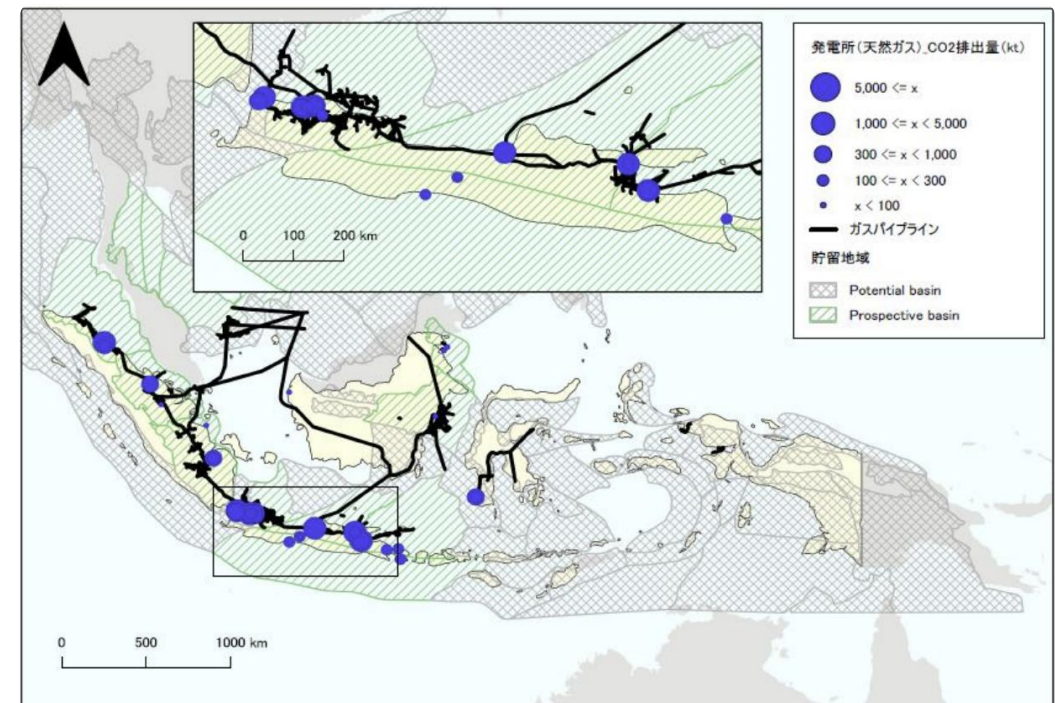
## 石炭火力発電×貯留地

石炭火力発電所は、主にジャワ島に分布しており、年間CO<sub>2</sub>排出量が5,000ktを超える大型の石炭火力発電所がいくつも存在



## 天然ガス火力発電×貯留地

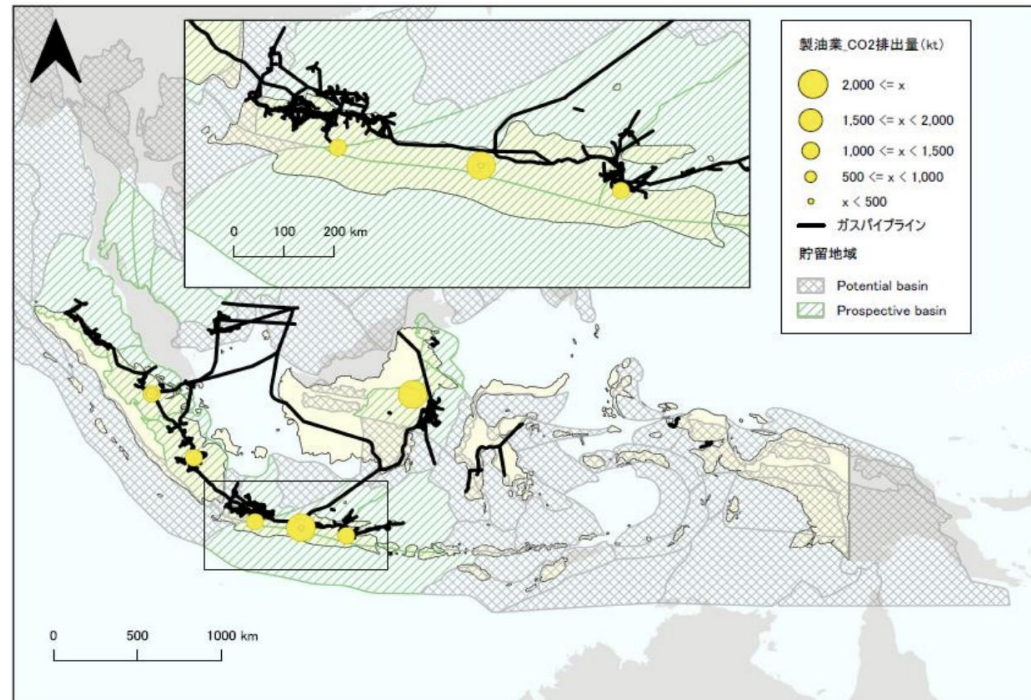
天然ガス火力発電所の分布は石炭火力発電所と同様にジャワ島に多く存在し、特にジャカルタ周辺に集中している。天然ガス火力発電所の年間CO<sub>2</sub>排出量は1,000kt以下の小型のものが比較的多い



## CO<sub>2</sub>排出源として、製油所はジャワ島中部やカリマンタン東部に多く、年間排出量2,000kt超の大型施設も存在しており、製鉄所は主にジャワ島西部に集中しており、約3,000kt規模

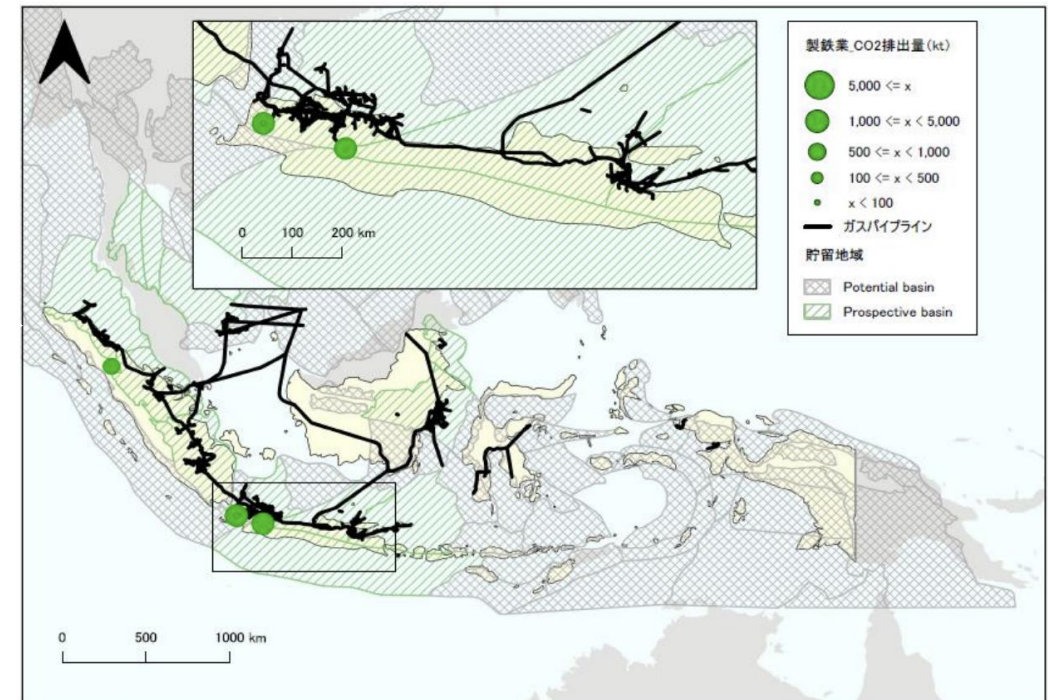
### 製油所・ガス×貯留地

製油所及び国際ガスパイプラインとCO<sub>2</sub>貯留地は図 6-46のとおりである。ジャワ島の中部とカリマンタン島の東部には年間CO<sub>2</sub>排出量が2,000kt以上の大型の製油所が存在



### 製鉄所×貯留地

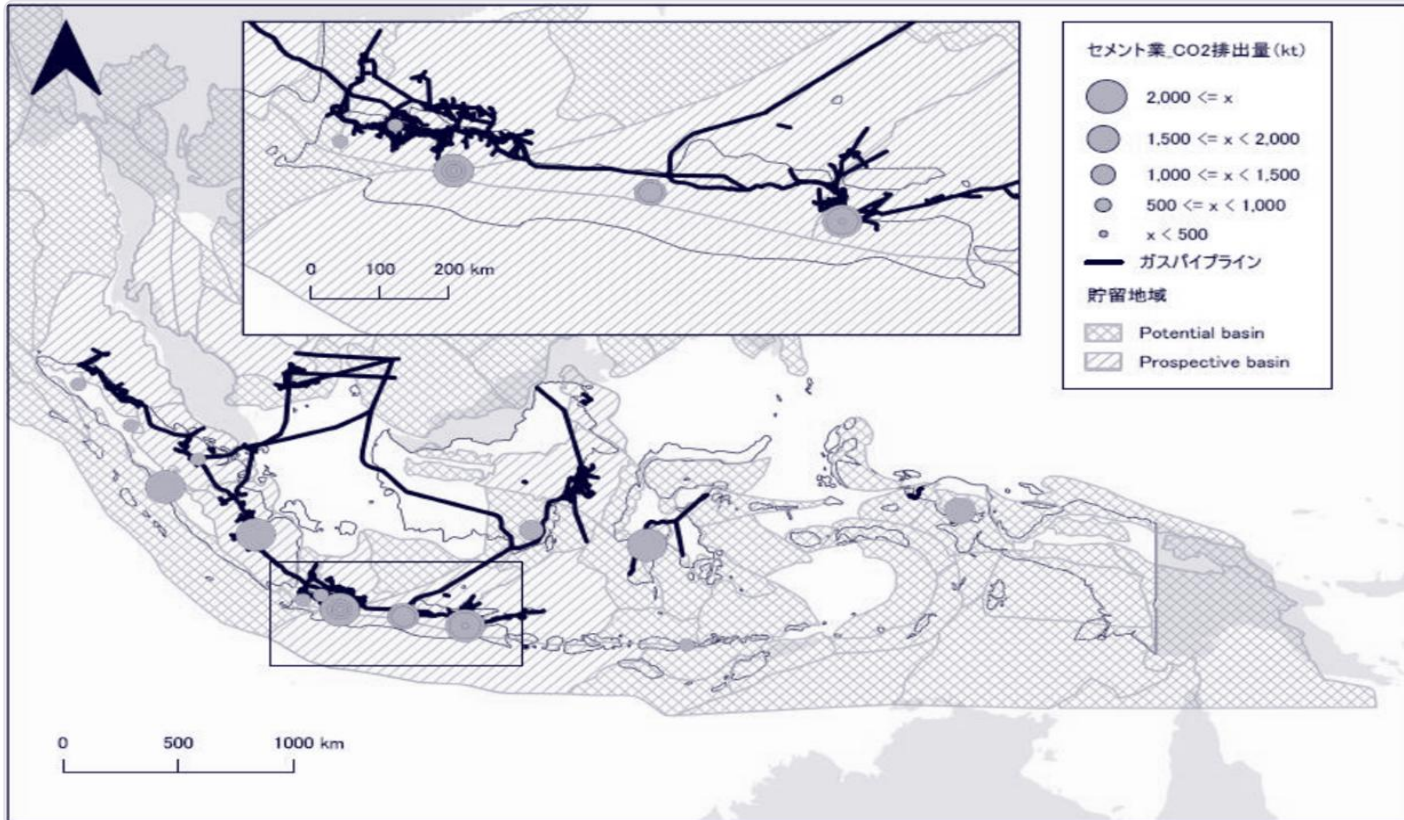
鉄鋼所及び国際ガスパイプラインとCO<sub>2</sub>貯留地は図 6-47のとおりである。製鉄所は主にジャワ島西部に分布しており、年間CO<sub>2</sub>排出量は3,000kt程度



# インドネシアのセメント工場は主にジャワ島に集中しているが、スマトラ島やスラウェシ島にも年間CO<sub>2</sub>排出量2,000kt超の大規模排出源が存在



## セメント×貯留地



## COMMENTS

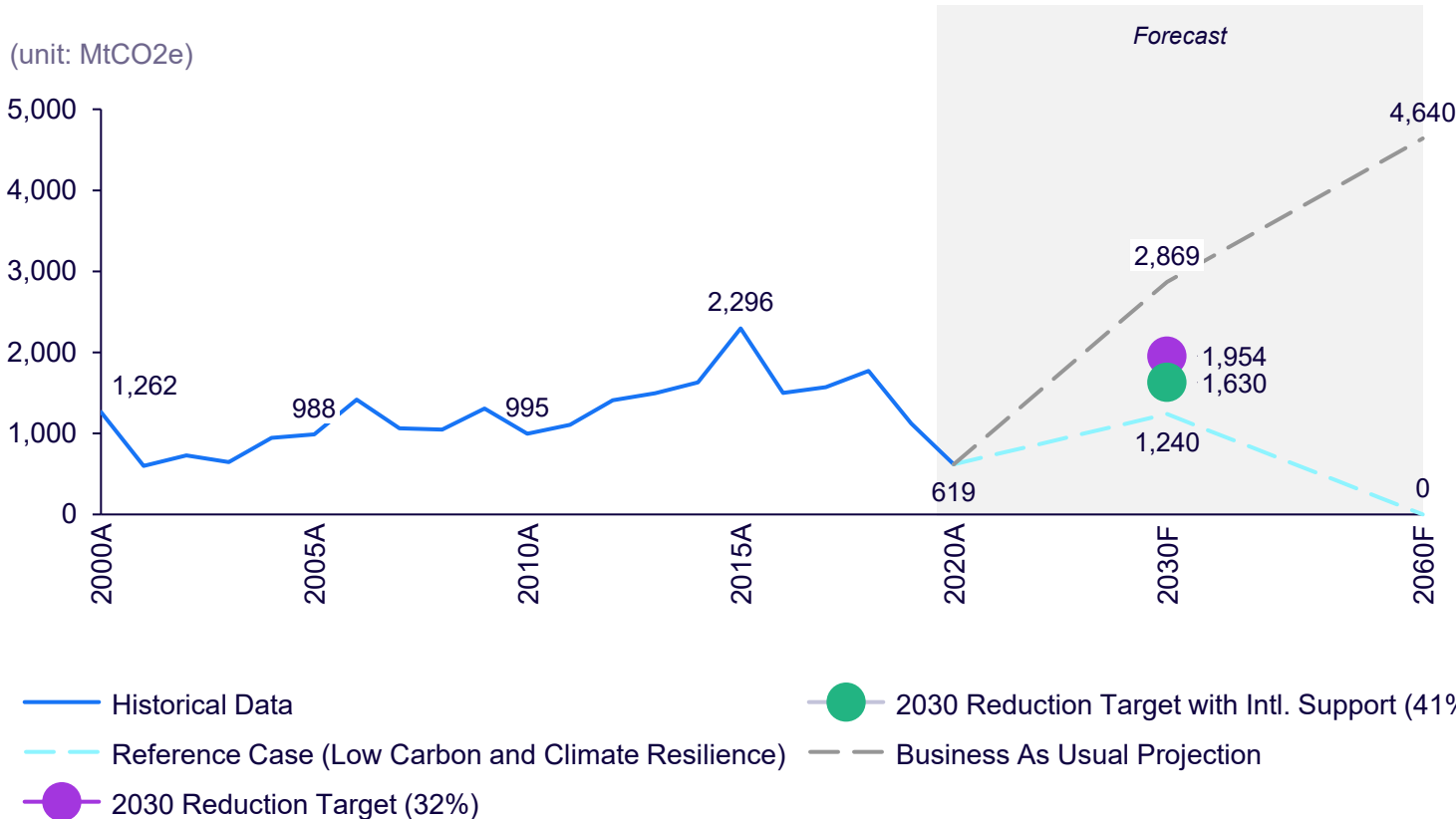


セメント工場は主にジャワ島に分布しているが、スマトラ島やスラウェシ島においても、年間 CO<sub>2</sub> 排出量が 2,000kt 以上の大規模排出源が存在

# NDCでは2030年に無条件でBAU比32%減を宣言。更に、インドネシア政府の戦略文書では、2030年にピークアウト、2060年にCN達成を宣言



## GHG Target



## COMMENTS










- Current declaration of unconditional **reduction in emissions of 32% of BAU by 2030**, and up to 43.2% reduction with international support. Target of 2060 has been framed keeping in mind peak of GHG would be 2030
- Focuses on 4 key sectors constituting of energy, land-based<sup>1</sup>, industrial and waste management while simultaneously increasing carbon stocks in blue carbon ecosystem
- The Draft Government Regulation on the National Energy Policy (RPP KEN) aim for 70–72 percent RE mix by 2060
- Indonesia plans to phase out coal-fired power plants by 2040 in support of its NDC targets
- With the given trend, 2050 emission would be reduced to 540 MtCO<sub>2</sub>e reducing impact of climate change of national GDP loss by 3.45% in 2050

Note: 1) Agriculture, forestry, and related industries

Source : UNFCCC, Ministry of Environment and Forestry, Ministry of National Development and Planning (Bappenas), IESR, Various secondary sources, Arthur D. Little analysis

## インドネシアのCN政策は、再エネ導入促進のための補助金や税制優遇、条件付きでの外国投資優遇、排出権取引制度を活用する一方、新規石炭火力の制限や森林保護などにも重点




GHG Target Action 		Detail 
アメの政策	<b>助成金</b>  <ul style="list-style-type: none"> <li>Subsidy is provided to alternative energy sector to boost adoption and usage</li> </ul>	<ul style="list-style-type: none"> <li>RE projects have an established tariff ceiling called BPP</li> </ul>
	<b>税制優遇措置・規制緩和</b>  <ul style="list-style-type: none"> <li>Tax related incentives such as reduced overall tax or tax holiday boosting overall financial viability</li> </ul>	<ul style="list-style-type: none"> <li>Govt imposed tax reduction by 5% on RE projects</li> <li>Allow faster asset amortization and lower tax on dividend payment for NRI in RE projects</li> <li>Allowing foreign shareholder ownership depending upon different capacity (for e.g. &gt;1 MW up to 95% of foreign ownership)</li> </ul>
ムチの政策	<b>排出権取引制度 (ETS)</b>  <ul style="list-style-type: none"> <li>Carbon credit trading system to meet carbon credit/emission related criteria</li> </ul>	<ul style="list-style-type: none"> <li>ETS policy (1<sup>st</sup> phase) was launched in February 2023, covering coal-fired power plants and ended in 2024</li> <li>2<sup>nd</sup> and 3<sup>rd</sup> phase will begin in 2025 and 2028 with wider scope</li> </ul>
	<b>罰則</b>  <ul style="list-style-type: none"> <li>Penalty imposed via higher taxes or cess to disincentivize usage (Currently stop)</li> </ul>	<ul style="list-style-type: none"> <li>Partial implementation of carbon tax for several sectors (i.e., power plants) and regulated under MEMR 16/2022</li> <li>IDX Carbon has a role in ensuring accuracy of carbon tax (min. Rp 30 per kilogram CO2e based on gov. mandate)</li> </ul>
	<b>規制</b>  <ul style="list-style-type: none"> <li>Mandates to increase alternative energy source</li> <li>Limiting new coal fire plant construction</li> <li>Forced emission reporting disclosure for monitoring and control</li> </ul>	<ul style="list-style-type: none"> <li>For forest preservation – integrated, comprehensive, spatially explicit land use planning via Regulation 46/2016</li> <li>No new coal fired plant from 2023 onwards by PLN, however IPP and captive plants are exempt</li> </ul>

## 非エネルギー起源である森林・土地利用部門でのGHG削減が重要であり、林地の使用禁止、泥炭地の新規許可の禁止などの政策により削減に取り組む

産業別		CN目標	政策方針の概要
非エネルギー起源	<p>森林・土地利用</p>	<ul style="list-style-type: none"> <li>Current AFOLU emission levels are <b>568 Mt<sup>2</sup> CO<sub>2</sub>e with target to convert it into net sink by 2030</b></li> </ul>	<ul style="list-style-type: none"> <li><b>Bans conversion of forested land</b> (productive production forest) in forest area</li> <li>Govt Regulation No 46/2016 on strategic environment assessments (SEAs) provided comprehensive guidance on land use planning</li> <li><b>No new permit for the use of peatland (50% of total emission from AFOLU sector comes from use of peatland through peat fire)</b></li> <li>Govt. Regulation No. 15/2017 mandates private sector and local government to improve use of peatland and water management</li> <li><b>Private sector involvement in management of peatland and water management is expected to be prioritized</b></li> </ul>
	<p>農業</p>	<ul style="list-style-type: none"> <li>Target given jointly <b>with Forest and Land Use</b> called AFOLU (Agriculture, Forest, and Land Use) – Given above</li> </ul>	<ul style="list-style-type: none"> <li>Agriculture sector contributes around 8-10% of GHG and major policy being encouraged is use of low emission variety and water saving paddy cultivation system as well as utilization of livestock</li> <li><b>Agriculture loans remain at 6-9% interest. However, government has subsidizes 3% of interest for the sector, contributing to an increase in loan distribution among farmers</b></li> <li><b>Encouraging organic fertilizer would reduce dependency on nitrogen</b></li> <li>Integrated farming system is being regulated by Minister Regulation No. 105/2014- <b>however current penetration level only 3% of total potential;</b> priority form of farming to be developed</li> <li>Other proposed policies are modernization of harvesting tools and policies to reduce yield losses which is 11% of retail level</li> </ul>

Note: 1) Refers to quantitative target of the item discussed based on Indonesia LTS LCCR 2050 Document; 2) 1,000,000 tons  
 Source: Arthur D. Little Analysis, Expert Inputs, Secondary Research

## エネルギー起源のGHG削減では、再エネとCCUSの利用による脱炭素化に加え、運輸部門に焦点を当てた一連の政策に取り組んでいる

産業別 	CN目標 	政策方針の概要 
<p>エネルギー起源</p>	<ul style="list-style-type: none"> <li>• 2024 emissions reached 147.61 Mn ton of CO<sub>2</sub>e with target in 2030 kept at 358 CO<sub>2</sub>e</li> <li>• <b>Broad power generation mix are renewables 43%, coal 38, natural gas 10%, CCS 8%</b></li> <li>• Current energy mix are renewables 16%, coal 59%, natural gas 21%, others 4% (geothermal/biomass)</li> <li>• By 2050, carbon intensity of power generation to be 104 gram CO<sub>2</sub>/kWh</li> <li>• Within transport sector, dependence on fossil fuel is to reduce                         <ul style="list-style-type: none"> <li>– Target in 2050 is Biofuels (46%), oil fuels (20%), electricity (30%), natural gas (4%)</li> <li>– Expected rise in biofuels translate into 20-25% growth in volumes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 3 key policy focus covering (i) energy efficiency measure in sub sectors (ii) substitution of fossil fuel by RE (iii) electrification of end use – building and transportation</li> <li>• Decarbonize power sector by high utilization of RE, equipping operational coal fired plants with CCUS/CCS</li> <li>• Switch to RE is also important because Indonesia exports 50% of its coal and in long term other countries too would reduce its dependence on coal</li> <li>• <b>Indonesia’s RE potential is estimated at 442GW of which only 5% has been exploited</b></li> <li>• <b>Around 75% of coal plants would be equipped with CCS to achieve zero emissions in coal power plants</b></li> <li>• Targeted that all future household will have electricity access through grid and non grid as well as solar roof top PV</li> <li>• Plans to deploy Smart Micro Grid in remote areas</li> </ul> <p><b>Transport Sector (Policies)</b></p> <ul style="list-style-type: none"> <li>• <b>Emission reduction in transportation sector is expected via electrification of transport</b> <ul style="list-style-type: none"> <li>– Target of 2.1 mn EMC in 2025 to reach 2.5 mn in 2030</li> <li>– Target of 400K PV in 2025 to reach 600K in 2030</li> </ul> </li> <li>• Supplying more biofuels for diesel substitute and ethanol blending</li> </ul>

Note: 1) Refers to quantitative target of the item discussed based on Indonesia LTS LCCR 2050 Document; 2) 1,000,000 tons  
 Source: Arthur D. Little Analysis, Expert Inputs, Secondary Research

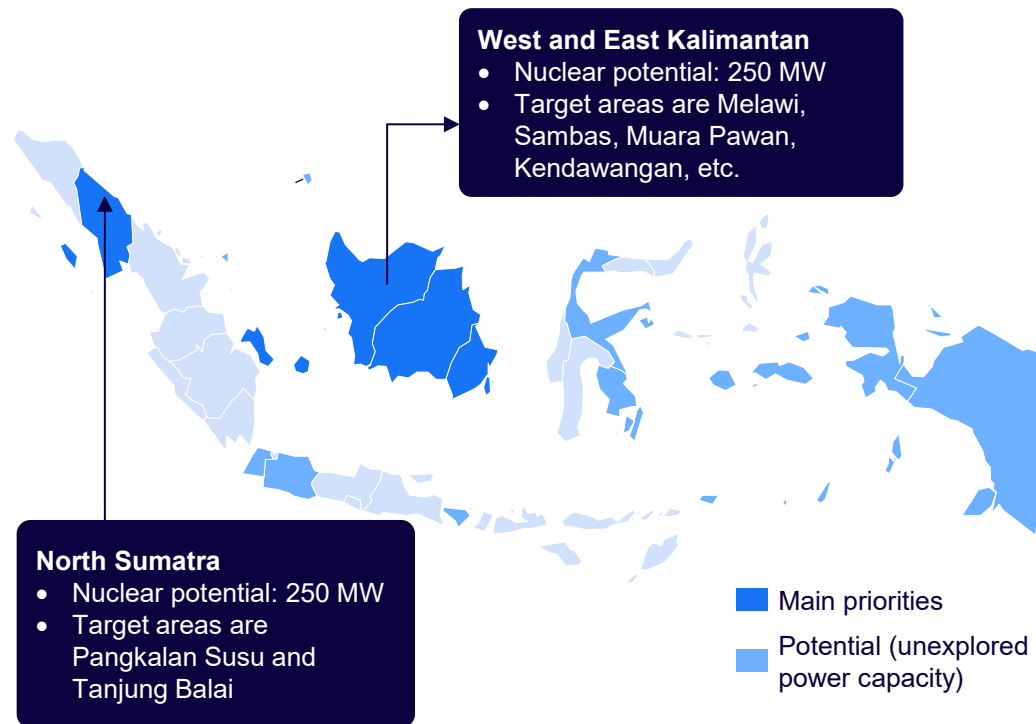
# インドネシアはCOP29で、グリーンアンモニア「GAIA」プロジェクトやBECCSの推進を表明し、JETPやETMなど国際資金支援を活用して脱炭素化を加速させる方針を表明

COP 29 Technology Initiatives		+	Climate Finance
Green Ammonia Energy (GAIA)	BECCS <sup>1</sup> Integration		
<p><b>Green ammonia production and uses</b></p> <p>The diagram shows a flow from renewable energy (solar, wind, hydro) to hydrogen production, then to green ammonia production. The ammonia is used for power generation and energy storage, fertilizers, and marine fuel.</p>	<p><b>BECCS<sup>1</sup> Integration</b></p> <p>The diagram illustrates the process from energy crops (high biomass yield, extensive availability, biomass residues) to carbon capture (combustion, fermentation, aerobic digestion, gasification). The captured CO<sub>2</sub> is stored in geological storage (saline aquifers, depleted oil and gas fields). The process also produces energy products (heat, biohydrogen, biomethane, synthetic biofuels, electricity) and non-energy byproducts.</p>	<p>Indonesia tech initiatives towards decarbonization efforts are well-supported with green financing initiatives set by the gov. In COP29, the following initiatives were mentioned:</p> <ol style="list-style-type: none"> <li><b>1. Just Energy Transition Partnership (JETP)</b> -- Mobilization of USD 20 bn of public and private financing to support Indonesia's power-sector decarbonization</li> <li><b>2. Blended Finance Energy Transition Mechanism (ETM)</b> -- Appointed PT Sarana Multi Infrastruktur to structure blended-finance deals for all renewable projects in ID</li> </ol>	
<ul style="list-style-type: none"> <li>Under PT Pupuk Indonesia, Indonesia will conduct Green Ammonia Initiative from Aceh (GAIA) Project, aligned with its commitment to global green energy transition                         <ul style="list-style-type: none"> <li>- <b>Expected to reduce reliance on fossil fuel within the agriculture sector by leveraging hydrogen for a dual-production approach</b></li> </ul> </li> <li>Will be the <b>world's first hybrid green ammonia production facility</b></li> </ul>	<ul style="list-style-type: none"> <li>BECCS Integration is an approach that combines sustainable forest management, bio energy production, carbon capture and storage to <b>effectively create a carbon-negative energy source</b> <ul style="list-style-type: none"> <li>- Existing carbon storage (e.g., Sumatra) are within forest proximity, providing Indonesia with a unique advantage in applying this technology</li> </ul> </li> <li>PT Pertamina and Marubeni Indonesia will lead the development of this project and has signed a Joint Study Agreement in August 2024</li> </ul>		

Note: 1) Bioenergy with Carbon Capture Storage  
 Source: Multiple secondary resources, Marubeni Indonesia, Arthur D. Little analysis

# インドネシアはスマトラとカリマンタンを優先地域として2030年までに合計500MWの原子力発電導入を目標に掲げており、2027年から建設開始、2032年稼働を目指す計画

## Nuclear power target (2025 – 2034)



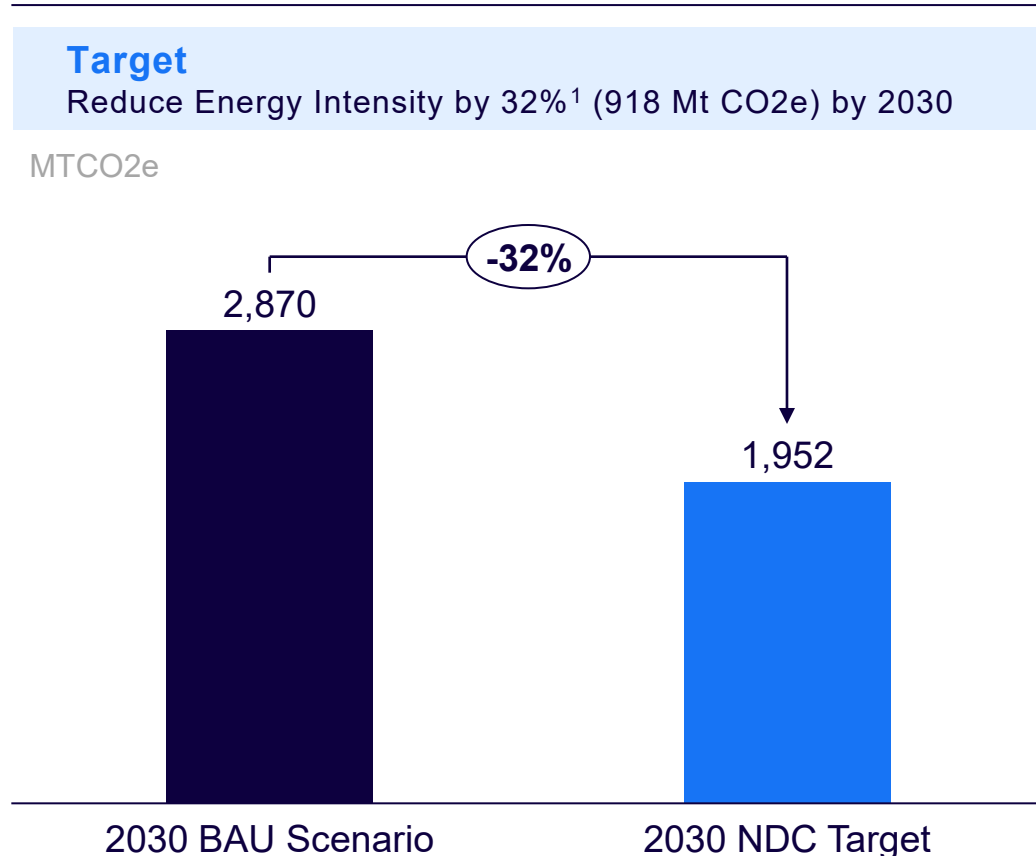
## Current situation

- Based on RUPTL 2025 – 2034, Indonesia plan to increase its **nuclear capacity by 500 MW in 2032**, compromising of two priorities region: **Sumatra and Kalimantan**
  - The two areas are prioritized due to their significant level of uranium (esp. West Kalimantan with ~24,000 tn of uranium) that are essential fuel for nuclear reactors
  - In total, there are **29 potential nuclear project identified nationwide, however the rest remain unexplored**
- The government envisions construction to begin in 2027, driven by the urgency to diversify energy sources and accelerate the transition toward a cleaner energy mix
- MEMR is currently preparing regulations on uranium processing in West Kalimantan as a primary energy source, while exploring cooperation with various countries on the use of nuclear technology.
- MEMR will be supported by NEPIO<sup>1</sup> in the development stage of nuclear sites

Note: 1) Nuclear Energy Program Implementing Organization  
Source: RUPTL 2025 – 2034, MEMR 2024, Multiple secondary resources, Arthur D. Little analysis

# インドネシアはBESSやグリーングリッドを活用し、2030年までにエネルギー強度を32%削減する目標を掲げ、省エネ規制やエネルギー管理制度を強化している

## Energy efficiency (EE) target



## Government policies and initiatives

Policy & Initiatives	Details
<b>Government Regulation No. 33 of 2023</b>	<ul style="list-style-type: none"> <li>Requires energy providers and users across sectors to implement energy conservation programs.</li> <li>Energy conservation program includes mandatory energy management, energy performance standards and labels, energy audit, financing for conservation, energy service businesses (ESCOs) among other.</li> </ul>
<b>MEMR Regulation No. 8 of 2025</b>	<ul style="list-style-type: none"> <li>Requires large energy providers and users (based on thresholds: ≥ 6,000 TOE/year for energy providers; ≥ 4,000 TOE/year for industrial and transport users; ≥ 500 TOE/year for building users) to implement structured energy management.</li> <li>Energy management includes appointing energy managers, setting baseline consumption, planning efficiency programs, and performing periodic audits</li> </ul>
<b>Presidential Instruction No. 13 of 2011</b>	<ul style="list-style-type: none"> <li>Requires public institutions to implement energy and water saving measures—including operational practices, awareness, and efficiency measures in government buildings</li> </ul>

Note: 1) Relative to Business As Usual scenario  
Source: RUPTL 2024 – 2035, BPK RI, Arthur D. Little analysis

## Contents

1. エネルギー構成・政策・監督機関
2. 化石エネルギー
3. パイプライン（ガス・石油）
4. 次世代・再生可能エネルギー
- 5. 発電事業者**
6. 発電所
7. 電力品質
8. 送電網
9. 電気料金
10. 電力需給状況

## インドネシアでは既存法とRUPTL 2025-2034に基づき、民間事業者がIPPとしてPLNに電力を供給し、未カバー地域では最大50MWまで直接販売も認められている

### Electric Company Regulation

	Law No. 30 / 2009	MEMR Regulation 38/2016	Law No. 6 / 2023
Overview	<ul style="list-style-type: none"> <li>The main legal framework for all electricity players</li> <li>Beyond state-owned enterprise, private companies are allowed to participate in the market with limited access to value chain <ul style="list-style-type: none"> <li>PLN has access to all value chain (from transmission to distribution)</li> <li>Article 10 (1) that public-supply activities “<i>may be conducted in an integrated manner</i>” meaning that private company acts as an IPP to PLN</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In order to facilitate the acceleration of rural electrification, MEMR provides permit for private companies, regional-owned enterprises, and cooperatives to manage small-scale electricity that has yet to be covered by PLN; includes selling directly to customer</li> <li>Private players may apply for permit or be directly appointed by regional government</li> <li>Private players need to build facility from scratch (unless it is available for rent)</li> <li>Private players should follow tariffs set by government</li> </ul>	<ul style="list-style-type: none"> <li>“Omnibus Law on Job Creation” is not a direct electricity market law. However, it includes provisions relevant to electricity licensing and value chain for IPPs</li> <li>IUPTL<sup>1</sup> modified and streamlined via integration with OSS systems to help investors receive faster licensing permit</li> <li>Integration principle remains in place as gov. continues to prioritize PLN in the sector (for both non-RE and RE projects)</li> </ul>
Implication	<p><b>Private players will remain Independent Power Producers (IPPs) supplying to PLN in the long run, but they are also permitted to manage small-scale electricity systems (up to 50 MW) not yet covered by PLN, including direct sales to customers</b></p>		

インドネシア政府は発電分野への外国投資促進のため、輸入関税・VAT免除、再エネ調達枠組み、政府保証、炭素取引制度など多様なインセンティブを提供している

## Incentives for Power Generation Company

<b>Import duty exemption</b>	<ul style="list-style-type: none"> <li>• 0% Import Duties for imported machinery and equipment used to build or develop electricity generation for the public interest.           <ul style="list-style-type: none"> <li>– Regulated by PMK 66/PMK.010/2015 (amending earlier PMK 154/2008 &amp; PMK 128/2009).</li> </ul> </li> </ul>
<b>Relief of import duty and VAT</b>	<ul style="list-style-type: none"> <li>• Exemption/relief of import duty and VAT for goods used in geothermal exploration/exploitation/utility (i.e., upstream through power generation).           <ul style="list-style-type: none"> <li>– Regulated by PMK 218/PMK.010/2019, amended by PMK 172/PMK.010/2022.</li> </ul> </li> </ul>
<b>Renewable Power Procurement Framework</b>	<ul style="list-style-type: none"> <li>• Price certainty through ceiling tariffs with location factors, procurement via direct selection/appointment within 180 days, and fiscal/non-fiscal incentives for renewable power developers. Grid interconnection costs are capped at 30% of electricity purchase price.           <ul style="list-style-type: none"> <li>– Regulated by Presidential Regulation 112/2022.</li> </ul> </li> </ul>
<b>Government Guarantee</b>	<ul style="list-style-type: none"> <li>• PLN's financial obligations under Power Purchase Agreements (PPAs) is guaranteed by the government, enhancing project bankability for independent power producers (IPPs)           <ul style="list-style-type: none"> <li>– Regulated by Presidential Regulation 4/2016 on Acceleration of Electricity Infrastructure</li> </ul> </li> </ul>
<b>Carbon Trading Mechanism</b>	<ul style="list-style-type: none"> <li>• Carbon Trading Mechanism in the power sector exists, enabling emission allowance trading and offset schemes for power plants under Indonesia's carbon pricing framework (Nilai Ekonomi Karbon)           <ul style="list-style-type: none"> <li>– Regulated by Minister of Energy and Mineral Resources Regulation 16/2022</li> </ul> </li> </ul>

## インドネシアのIPP参入課題は、再エネ補助金不足や関税上限、土地取得の難しさ、石炭火力の余剰、政策の不整合、標準化されていないPPAによる不透明さにある

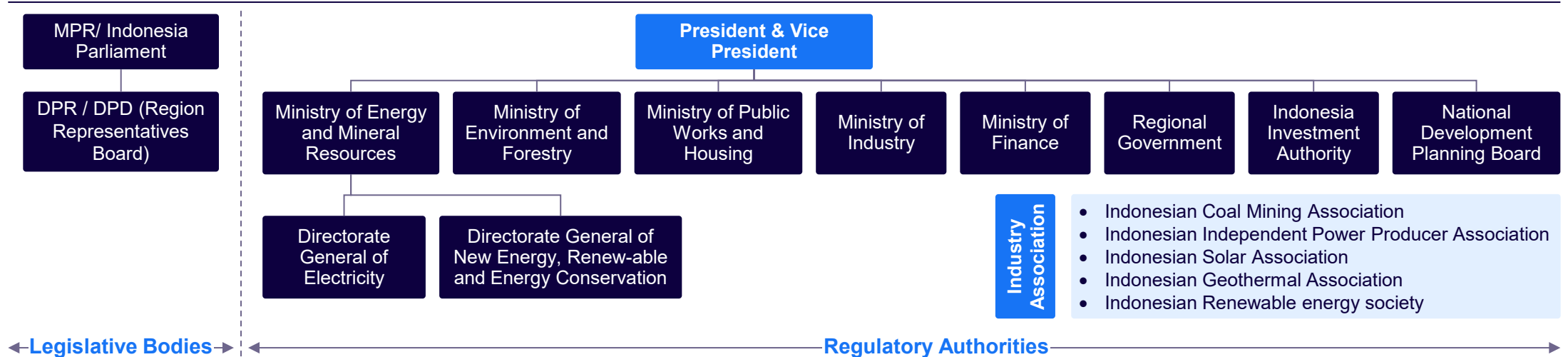
### Barriers for IPP Entry

<b>Lack of incentives mechanism</b>	<ul style="list-style-type: none"> <li>Indonesia currently subsidises fossil fuel-based power generation (IDR 83.7 trillion or \$5.6 billion in 2021) and provides tariff subsidies to the different consumer categories. In contrast, <b><u>limited subsidies are available for renewable power sources</u></b>, which places them at a disadvantage vis-à-vis fossil fuels</li> </ul>
<b>Tariff caps for renewable energy</b>	<ul style="list-style-type: none"> <li><b><u>Currently, if the final tariffs (capped at 85% of the local BPP if higher than the national average) are subject to extensive negotiations between PLN and the IPPs and require significant time and effort from the latter</u></b></li> <li>However, in the absence of direct subsidies for renewables, the present tariff mechanism does not allow renewable energy projects to compete fairly with fossil fuel-based infrastructure, which limits their financial viability</li> </ul>
<b>Land acquisition procedures</b>	<ul style="list-style-type: none"> <li>Securing land for renewable energy projects, such as solar or wind farms is a major obstacle where Securing land for renewable energy projects, such as solar or wind farms, can be a major obstacle are time consuming</li> </ul>
<b>Excess Capacity from Coal-Fired Power Plants</b>	<ul style="list-style-type: none"> <li>Indonesia has plans to move forward with renewable energy, however, PLN has excess capacity as majority of it's energy sourced are from Coal-Fired Power plants</li> </ul>
<b>Discrepancies and planning in policies</b>	<ul style="list-style-type: none"> <li>Discrepancies in planning and policy considerations were observed in <b><u>the different power sector planning documents published by national agencies</u></b>, which add add complexity for investors and project developers</li> <li>Stringent local content requirements discourage investments in renewable infrastructure projects in Indonesia</li> </ul>
<b>Power purchase agreement practices</b>	<ul style="list-style-type: none"> <li><b><u>Indonesian regulations do not allow IPPs to enter into direct power purchase agreements with customers</u></b>, which limits the ability of consumers to procure power produced from renewable sources directly</li> <li>Indonesia also does not currently have a standard PPA regime, agreements are assessed and negotiated on a case-by-case basis, increasing complexity, reducing transparency, and lowering investor confidence overall</li> </ul>

インドネシアの電力関連事業に参入する際は、大統領・議会、エネルギー鉱物資源省、財務省、地域政府など複数の規制当局や業界団体が関与し、多面的な規制影響を受ける



### Regulatory Bodies and Authorities



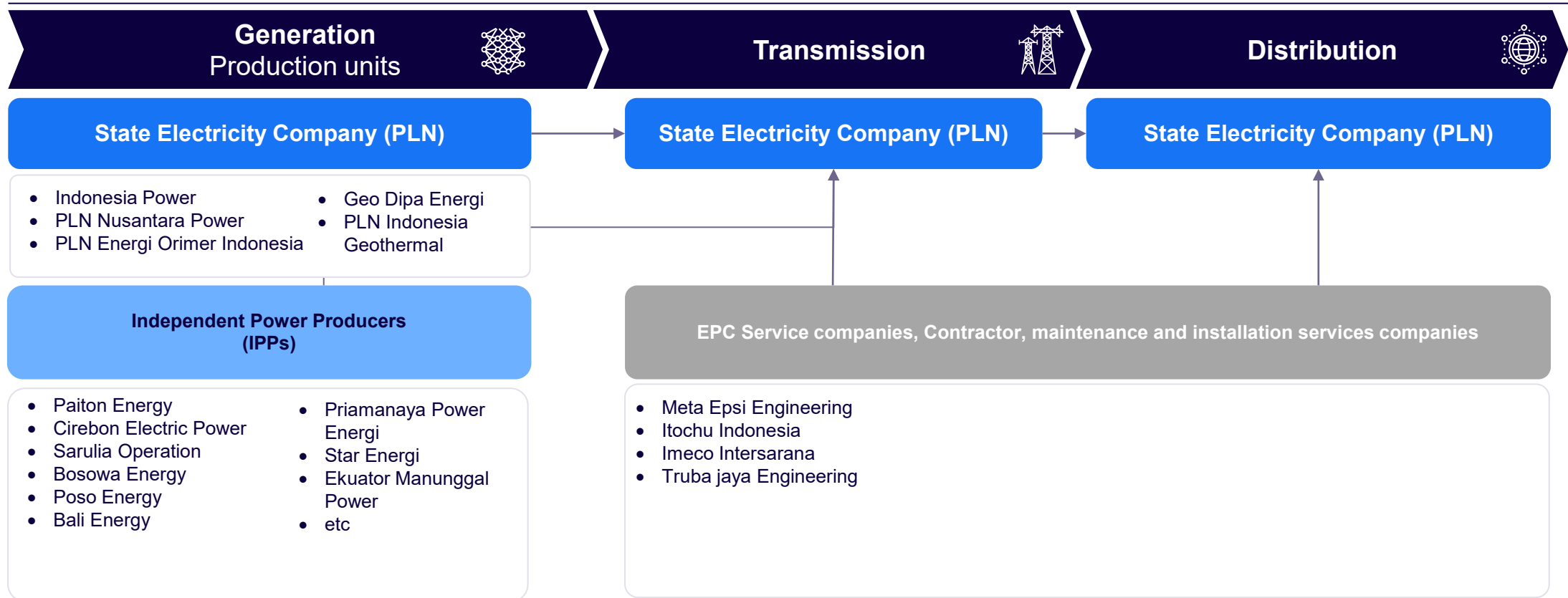
### Impact to Industry Players

- Formulate laws and required regulations regarding industry practice for approval of President
- Approval bodies
- Tariff setting
- Oversee electricity supply situation
- National Electricity master plan
- State budget for rural electrification, RE and T&D
- Approval of IPP tariff
- Domestic market obligation on coal
- Policies on RE: geothermal, small hydro, etc
- Set mechanism and policies electricity pricing and subsidies
- Tax and levies for Power and Electricity sector
- IPPs Contract Scheme
- Regional rights in approving regional/ local power/ electricity project
- Regional income tax
- Land approval
- Overseeing foreign direct investment to Indonesia
- One door step policy for Investment
- Set up medium term national dev. Plan
- Foreign loan, & grant (Multilateral & Bilateral)
- Public Private Partnership Development

# インドネシアの電力は発電でPLNとIPPが並存しつつも、送電と配電はPLNが独占しており、EPCや保守企業がその周辺を支えている

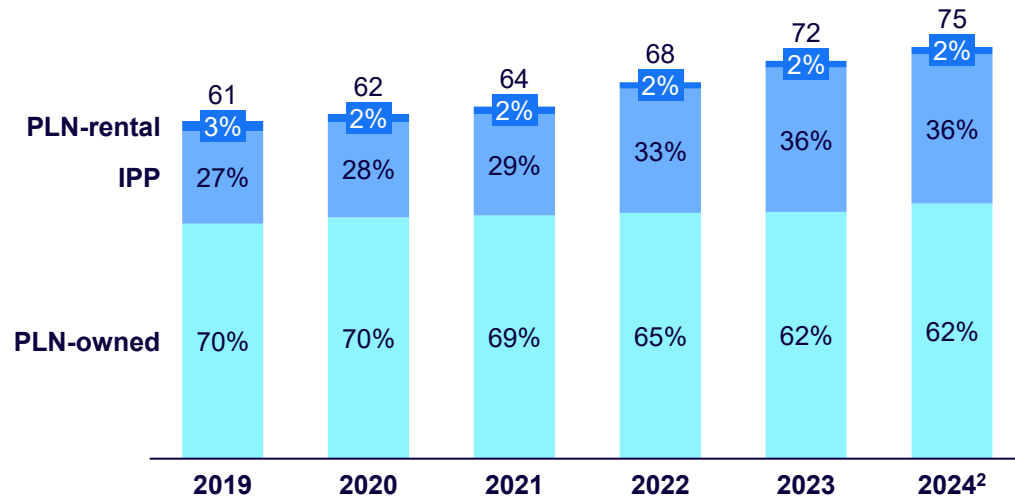
## Key players and value chain

NON-EXHAUSTIVE



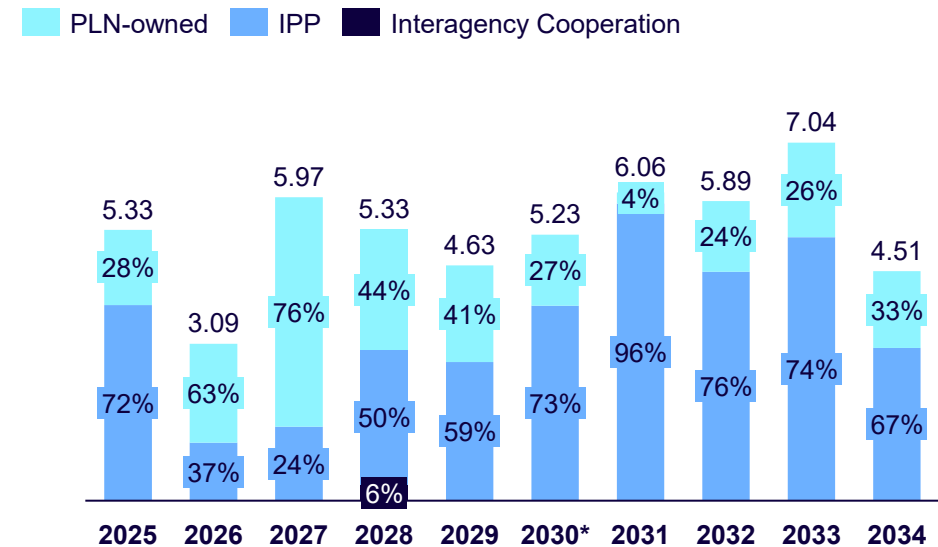
## インドネシアの発電は依然としてPLNが主体だが、2025～2034年には追加容量の約54GWのうちIPPへの割当比率を拡大し、再エネ主導の新規導入を進める計画となっている

Realized capacity, by operators  
2019-2024, GW



- As of October 2024, the total installed capacity of power plants in Indonesia is 283,654 GWh, consisting of PLN-owned 153,722 GWh, rental 4,103 GWh and IPP at 125,829 GWh
- Most of these plants relies on fossil fuel (66%), followed by other RE sources (16.7%), water (7.3%) and geothermal (4.8%)
- **This indicates that Indonesia electricity generation are still dominated by PLN, that is heavily reliant on fossil-fuel**

Additional installed capacity for each year<sup>1</sup>  
2025 – 2034, GW



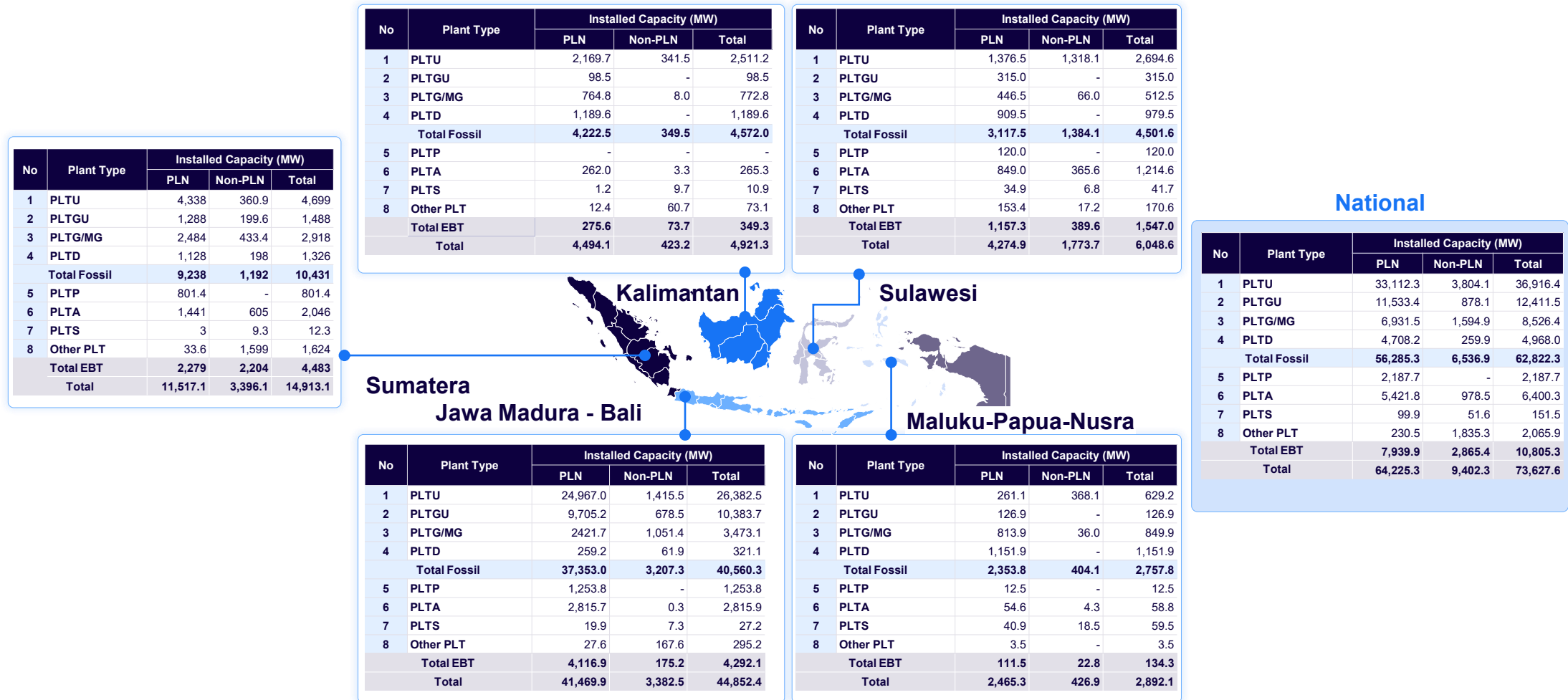
- **The total additional capacity required is 54.3 GW** (excl. interagency cooperation) over the next 7 years until 2034
- The 2026 decline results from IPP project adjustments, while PLN plans rapid operational growth from 2027 per its COD schedule
- **Additional installed capacity will be dominated by EBT at 51.9%**, primarily steam power plant (PLTU), followed by Non-EBT at 35.4% and storage at 12.7%

Note: 1) Based on Renewable Energy Base Scenario on RUPTL 2025-2034; 2) As of October 2024 (unaudited)  
Source: RUPTL 2021 – 2030, Arthur D. Little analysis

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インドネシアでは合計73.6GWの発電設備が稼働しており、その大半は化石燃料由来（約62.8GW）で、再エネ（約10.8GW）はまだ小規模にとどまっている



Note: PLTU : Coal Fired Power Plant, PLTGU : Combined Cycle Gas Turbine Power Plant, PLTG/MG : Gas Fired Power Plant, PLTD: Diesel Power Plant, PLTP: Geothermal Power Plant, PLTA: Hydropower Plant, PLTS: Solar Power Plant, EBT: Renewable Energy  
 Source: Research Paper "Map of distribution and existing capacity of electrical energy generation in Indonesia" - 2022

## インドネシアの発電所の一覧 – 石炭火力 (1/5)

#	Name	Output (MW)	Method	Status
1	Unit Pembangkit Listrik Paiton	4608	Combustion	Operating
2	PLTU Suralaya	4025	Combustion	Operating
3	PLTU Tanjung Jati	2640	Combustion	Operating
4	PLTU Cilacap	2121	Combustion	Operating
5	PLTU Batang	2000	Combustion	Operating
6	PLTU Jawa 7	2000	Combustion	Operating
7	PLTU Sumsel 8	1320	Combustion	Development
8	PLTU Banten Lontar	1,260	Combustion	Operating
9	PLTU Palabuhan Ratu	1050	Combustion	Operating
10	PLTU Indramayu	990	Combustion	Operating
11	PLTU Tanjung Awar-Awar	700	Combustion	Operating
12	PLTU Cirebon Unit 1	660	Combustion	Operating
13	PLTU Cirebon Unit 2	660	Combustion	Operating
14	PLTU Jawa Tengah 2	660	Combustion	Operating
15	PLTU Pacitan	630	Combustion	Operating
16	PLTU Kab. Rembang	630	Combustion	Operating
17	PLTU Banten Serang	625	Combustion	Operating
18	PLTU Labuan Banten	600	Combustion	Operating
19	PLTU Pangkalan Susu	440	Combustion	Operating
20	PLTU IPP Nagan Raya	400	Combustion	Operating
21	PLTU Celukan Bawang	380	Combustion	Operating

## インドネシアの発電所の一覧 – 石炭火力(2/5)

#	Name	Output (MW)	Method	Status
22	PLTU Ambunu	350	Combustion	Operating
23	PLTU Asahimas Chemical	300	Combustion	Operating
24	PLTU Paluh Kurau	300	Undefined	Operating
25	PLTU Simpang Belimbing	300	Combustion	Operating
26	PLTU Sumsel 5	300	Combustion	Operating
27	PLTU Cikarang Babelan	280	Combustion	Operating
28	PLTU Banjarsari	270	Combustion	Operating
29	PLTU Keban Agung	270	Combustion	Operating
30	PLTU Asam Asam	260	Combustion	Operating
31	PLTU Bukit Asam	260	Combustion	Operating
32	PLTU Amamapare	255	Combustion	Operating
33	PLTU Jeneponto	250	Combustion	Operating
34	PLTU Kaltim Teluk	250	Combustion	Operating
35	PLTU Labuhan Angin	230	Combustion	Operating
36	PLTU Teluk Sirih	224	Undefined	Operating
37	PLTU Tenayan Raya	220	Combustion	Operating
38	PLTMG Balai Pungut	200	Undefined	Operating
39	PLTU Bengkulu	200	Combustion	Operating
40	PLTU Galang Batang	200	Combustion	Operating
41	PLTU Kalbar-1	200	Combustion	Operating
42	PLTU Kaltim 2	200	Combustion	Operating

## インドネシアの発電所の一覧 – 石炭火力(3/5)

#	Name	Output (MW)	Method	Status
43	PLTU Kaltim-4	200	Combustion	Operating
44	PLTU Nagan Raya	200	Combustion	Operating
45	PLTU Ombilin	200	Undefined	Operating
46	PLTU Sebalang	200	Undefined	Operating
47	PLTU Tabalong	200	Combustion	Operating
48	PLTU Takalar (Punagaya-2)	200	Combustion	Operating
49	PLTU Tarahan	200	Combustion	Operating
50	PLTU Kalteng-1 Pulang Pisau	120	Combustion	Operating
51	PLTU Merak Energi Indonesia	120	Combustion	Operating
52	PLTU Pulang Pisau	120	Combustion	Operating
53	PLTU Tello	120	Combustion	Operating
54	PLTU Batu Hijau	112	Combustion	Operating
55	PLTU Embalut	110	Combustion	Operating
56	PLTU Tanjung Kasam	110	Undefined	Operating
57	PLTU Barru	100	Combustion	Operating
58	PLTU Bengkayang	100	Combustion	Operating
59	PLTU Kendari 3 DSSA	100	Undefined	Operating
60	PLTU Parit Baru (FTP1)	100	Combustion	Operating
61	PLTU Sambelia	100	Undefined	Operating
62	PLTU Sulbagut 1	100	Undefined	Operating
63	PLTU Sulbagut 3	100	Undefined	Operating

## インドネシアの発電所の一覧 – 石炭火力(4/5)

#	Name	Output (MW)	Method	Status
64	PLTU Sulut 3	100	Undefined	Operating
65	PLTU Timor-1	100	Combustion	Operating
66	PLTU Sulut-1	100	Combustion	Development
67	PLTU Jeranjang	90	Undefined	Operating
68	PLTU DSS	85	Undefined	Operating
69	PLTU Tanjung Bara	64	Undefined	Operating
70	PLTU Air Anyir	60	Combustion	Operating
71	PLTU Amurang	60	Undefined	Operating
72	PLTU Antam Pomalaa	60	Combustion	Operating
73	PLTU MSW	60	Combustion	Operating
74	PLTU Muara Jawa	55	Undefined	Operating
75	PLTU Anggrek	50	Combustion	Operating
76	PLTU Lombok Timur	50	Undefined	Operating
77	PLTU Mamuju	50	Combustion	Operating
78	PLTU Pindodeli 2	50	Combustion	Operating
79	PLTU Sampit	50	Combustion	Development
80	PLTU Bolok	33	Undefined	Operating
81	PLTU Suge	33	Undefined	Operating
82	PLTU Palu	30	Combustion	Operating
83	PLTU Waai	30	Combustion	Development

## インドネシアの発電所の一覧 – 石炭火力(5/5)

#	Name	Output (MW)	Method	Status
84	PLTU Sintang	27	Combustion	Operating
85	PLTU Holtekamp	24	Combustion	Operating
86	PLTU Bonto	20	Undefined	Development
87	PLTU Sanggau	17	Combustion	Operating
88	PLTU PT Inhil Sarimas Kelapa	15	Combustion	Operating
89	PLTU Baruta	14	Combustion	Operating
90	PLTU Ropa	14	Undefined	Operating
91	PLTU Sumbawa Barat	14	Undefined	Operating
92	PLTU Tembilahan	14	Combustion	Operating
93	PLTU Tidore	14	Undefined	Operating
94	PLTU Sofifi	6	Combustion	Development
95	Banjarsari Power Plant	Unknown	Combustion	Operating
96	Batu Hijau Power Plant	Unknown	Combustion	Operating
97	Delong Nickel Phase II Power Station	Unknown	Combustion	Operating
98	Perawang Mill Coal Power Plant	Unknown	Combustion	Operating
99	Perawang Mill Power Plant	Unknown	Combustion	Operating
100	PLTS Perjuangan	Unknown	Combustion	Operating
101	PLTU Koto Ringin	Unknown	Combustion	Operating
102	PLTU Nii Tanasa (20 ) & PLTMG Kendari (58 )	Unknown	Combustion	Operating
103	PLTU PT Semen Tonasa Indonesia	Unknown	Combustion	Operating
104	PLTU Weda Bay Power Plant	Unknown	Combustion	Operating
105	Sulawesi Labota Power Plant	Unknown	Combustion	Operating
106	PLTD Sei Baya	Unknown	Combustion	Operating

## インドネシアの発電所の一覧 – 石油

#	Name	Output (MW)	Method	Status
1	PLTD Senayan	101	Combustion	Operating
2	PLTD Siantan Kalbar	30	Combustion	Operating
3	PLTD Long Nawang	Unknown	Combustion	Operating
4	PLTMG Rawa Minyak	Unknown	Combustion	Operating
5	PLTU Nii Tanasa	20	Combustion	Operating
6	PLTMG Kendari	58	Combustion	Operating

## インドネシアの発電所の一覧 – ディーゼル (1/2)

#	Name	Output (MW)	Method	Status
1	PLTD & PLTG Trisakti	111	Combustion	Operating
2	PLTD Senayan	101	Combustion	Operating
3	PLTD Suppa	62	Combustion	Operating
4	PLTD Seberang Barito	45	Combustion	Operating
5	PLTD Suka Merindu	33	Undefined	Operating
6	PLTD Tegineneng	28	Undefined	Operating
7	PLTD Kayu Merah	25	Undefined	Operating
8	PLTD Sungai Juaro	25	Undefined	Operating
9	PLTD Koto Lolo	21	Undefined	Operating
10	PLTD Girimukti	20	Undefined	Operating
11	PLTD Bitung	17	Undefined	Operating
12	PLTD Gunung Malang	16	Undefined	Operating
13	PLTD Selayar	13.19	Combustion	Operating
14	PLTD Kutampi	11.7	Combustion	Operating
15	PLTD Batu Ampar	10	Undefined	Operating
16	PLTD Kahayan Baru	10	Combustion	Operating
17	PLTD Kuala Kapuas	10	Combustion	Operating
18	PLTD Lopana	10	Undefined	Operating
19	PLTD Sambaliung	10	Undefined	Operating
20	PLTD Banua Lima Unit Panangkalaan	8	Combustion	Operating

## インドネシアの発電所の一覧 – ディーゼル (2/2)

#	Name	Output (MW)	Method	Status
21	PLTD Sanggeng	7.5	Combustion	Operating
22	PLTD Tenau	6.4	Combustion	Operating
23	PLTD Banua Lima Unit Barabai	6	Combustion	Operating
24	PLTD Cot Abeuk	6	Undefined	Operating
25	PLTD Koba	5	Undefined	Operating
26	PLTD Maburai	5	Combustion	Operating
27	PLTD Padang	5	Undefined	Operating
28	PLTD Pilang	5	Undefined	Operating
29	PLTD Legon Bajak	4.4	Combustion	Operating
30	PLTD Aneuk Laot	4	Undefined	Operating
31	PTLD Batakan	4	Undefined	Operating
32	PLTD Wolomarang	3	Combustion	Operating
33	PLTD Seurapong	0.5	Undefined	Operating
34	PLTD Deudap	0.3	Undefined	Operating
35	PLTD Manadotua	0.25	Reciprocating Engine	Operating

## インドネシアの発電所の一覧 – 天然ガス(1/4)

#	Name	Output (MW)	Method	Status
1	PLTGU Priok	2720	Combustion	Operating
2	PLTGU Muara Tawar	2593	Combustion	Operating
3	PLTGU Tambak Lorok	2014	Combustion	Operating
4	PLTGU Gresik	1924	Combustion	Operating
5	PLTGU Muara Karang	1908	Combustion	Operating
6	PLTGU Jawa-1	1760	Combustion	Operating
7	PLTGU Grati	1425	Combustion	Operating
8	PLTGU Jababeka	755	Combustion	Operating
9	PLTGU Cilegon	740	Combustion	Operating
10	PLTGU Belawan	720	Undefined	Operating
11	PLTU 400 PT Krakatau Chandra Energi	400	Combustion	Operating
12	PLTDG Pesanggaran	325	Combustion	Operating
13	North Duri Cogeneration Plant	300	Combustion	Operating
14	Sumbagut 2 Peaker Power Plant	250	Combustion	Operating
15	Cilegon Krakatau Posco Power Plant	200	Undefined	Operating
16	PLTG Pesanggaran	200	Combustion	Operating
17	PLTMG Arun I	184	Undefined	Operating
18	PLTGU Sengkang	180	Combustion	Operating
19	PLTGU Panaran	164	Combustion	Operating
20	PLTMG Bangkanai	155	Combustion	Operating

## インドネシアの発電所の一覧 – 天然ガス(2/4)

#	Name	Output (MW)	Method	Status
21	PLTGU Gunung Megang	150	Undefined	Operating
22	Palembang Timur Power Plant	150	Undefined	Operating
23	Lombok New Peaker Steam Gas Engine Power Plant	136	Combustion	Operating
24	PLTG Gilimanuk	134	Combustion	Operating
25	PLTGU Indralaya	130	Combustion	Operating
26	PLTGU Tanjung Uncang & IPP Batam	120	Combustion	Operating
27	PLTGU Bekasi Power	119	Combustion	Operating
28	PLTGU Senipah	117	Combustion	Operating
29	PLTG Batamindo Industrial Park	114	Combustion	Operating
30	Duri Power Plant	112	Combustion	Operating
31	PLTD & PLTG Trisakti	111	Combustion	Operating
32	PLTG MM-2100	109	Combustion	Operating
33	PLTG Gorontalo	100	Undefined	Operating
34	PLTG Pamaran	98	Combustion	Operating
35	PLTGU Keramasan	80	Undefined	Operating
36	PLTG Paya Pasir	75	Undefined	Operating
37	PLTG Sunyaragi 2	72	Combustion	Operating
38	Fajar Gas Power Station	70	Combustion	Operating
39	Tuban Aromatics Power Station	66	Undefined	Unknown
40	PLTG Talang Duku	60	Undefined	Operating

## インドネシアの発電所の一覧 – 天然ガス(3/4)

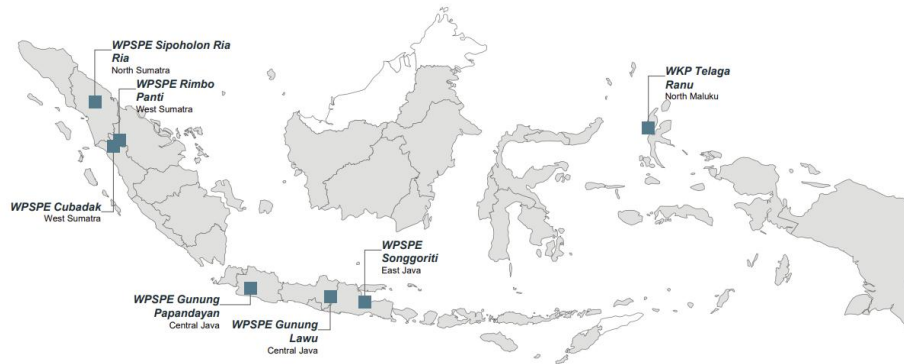
#	Name	Output (MW)	Method	Status
41	PLTGU Tanjung Batu	60	Undefined	Operating
42	PLTG MPP Air Anyir	50	Combustion	Operating
43	PLTMG MPP Jayapura	50	Combustion	Operating
44	PLTMG Sorong	50	Undefined	Operating
45	PLTMG Sumbawa	50	Undefined	Operating
46	PLTG Pauh Limo	49	Combustion	Operating
47	PLTD Seberang Barito	45	Combustion	Operating
48	PLTG Glugur	44	Combustion	Operating
49	PLTG Sambera	40	Undefined	Operating
50	PLTMG Jayapura	40	Combustion	Operating
51	PLTMG Kupang	40	Undefined	Operating
52	PLTMG Maumere	40	Undefined	Operating
53	PLTGU Musi II	30	Undefined	Operating
54	PLTMG Baloi	30	Combustion	Operating
55	PLTMG Baubau	30	Combustion	Operating
56	PLTMG Ternate	30	Combustion	Operating
57	Pembangkit Listrik Tata Jabar	30	Undefined	Operating
58	PLTGU Panaran	25	Combustion	Operating
59	PLTG Nias	25	Combustion	Operating
60	PLTMG MPP Nias	25	Combustion	Development

## インドネシアの発電所の一覧 – 天然ガス(4/4)

#	Name	Output (MW)	Method	Status
61	PLTD/G Teluk Lembu	21.6	Combustion	Operating
62	PLTMG Labuan Bajo	22	Undefined	Operating
63	PLTMG Flores	20	Undefined	Operating
64	PLTMG MPP Manokwari	20	Combustion	Operating
65	PLTMG Seram	20	Combustion	Operating
66	PLTMG Tanjung Selor	15	Undefined	Operating
67	PLTMG Timika	10	Combustion	Operating
68	PLTMG Bawean	3	Combustion	Operating
69	Arun Aceh LNG Gas Power Plant	Unknown	Combustion	Operating
70	MV Karadeniz Powership Onur Sultan	Unknown	Combustion	Operating
71	PLTG Borang	Unknown	Combustion	Operating
72	PLTG Indocement	Unknown	Undefined	Operating
73	PLTGU Jawa-2 Power Project	Unknown	Combustion	Operating
74	PLTMG Dullah	Unknown	Combustion	Operating
75	SPPBE PT. Bitcom Asri Energi	Unknown	Combustion	Operating
76	PLTMG Luwuk	40	Combustion	Development
77	Pusat Listrik Sei Gelam	Unknown	Combustion	Operating

## インドネシアの地熱発電計画はジャワやスマトラなどで進められているが、土地権利や環境悪化への懸念から地元住民の反対が強く、抗議によって多くのプロジェクトが遅延

### Geothermal Project Overview



- By 2024, approximately around 20-25 geothermal projects are planned across Java, Sumatra, Sulawesi, Maluku and Bali (~12.2 GW potential)
  - This discovery will contribute to long term mission of 9.3 GW geothermal power by 2035
- In order to achieve this long term target, government is planning for an aggressive investment in 2025, **supported by Law 21/2014 that enables legally exploring geothermal development even in protected forests, overriding some restrictive forestry regulations**

### Social challenges



- Geothermal projects have been widely opposed by locals due to concern over land rights and environmental degradation
  - Most of the protests come from farmers and indigenous communities whose livelihood are directly impacted by the project
  - As a result, **many projects have been delayed** (e.g., Padarincang community in Java has rejected project for 15 years, leading to operation delay for PT Sintesa Banten Geothermal)

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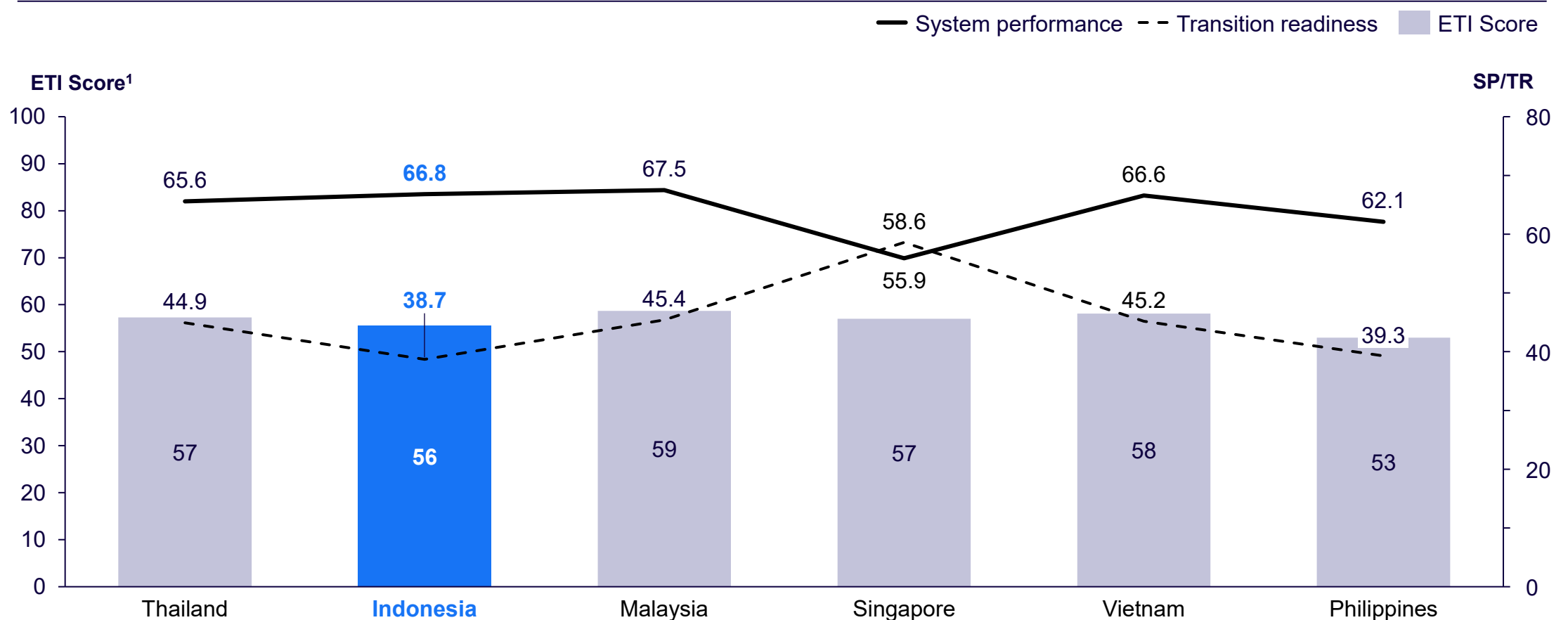
## インドネシアはMEMR規則12/2021で電力品質を規定し、電圧・周波数基準や信頼性指標、停電時の復旧対応・補償を義務化している

### Overview of Regulation on Electric Power Quality

Regulations	Focus	Details
<b>MEMR Regulation No. 12/2021</b>	Quality and Reliability of Power Supply	<ul style="list-style-type: none"> <li>• <b>Technical quality standards</b> on voltage deviation (~5% from nominal voltage level) and frequency tolerance (~0.2 Hz from nominal 50 Hz)</li> <li>• <b>Reliability indicators</b> constituting of SAIDI and SAIFI target, adjusted based on region and voltage level</li> <li>• <b>Service response time target</b> focusing on power restoration (depending on customer class) and complaint handling (max. 5 days)</li> </ul>
<b>MEMR Regulation No. 11/2021</b>	Electrical Installation Safety	<ul style="list-style-type: none"> <li>• All electrical installations must <b>obtain safety certificate (SLO) before grid connection</b></li> <li>• <b>Only certified engineers</b> may install and modify electrical systems</li> </ul>
<b>MEMR Regulation No. 2/2025</b>	Mandatory Compensation	<ul style="list-style-type: none"> <li>• PLN must <b>reduce customer bills when outages exceed targets duration (e.g., &gt;1 hr/month) with up to 200% compensation of base charge</b></li> </ul>

インドネシアのETIスコア56は高いシステムパフォーマンスに支えられていますが、エネルギー移行を可能にするためには低いトランジション準備度を強化する必要があります

World Economic Forum's Energy Transition Index (ETI)



Note: 1) Energy Transition Index score consists of System Performance (60%) and Transition Readiness (40%).

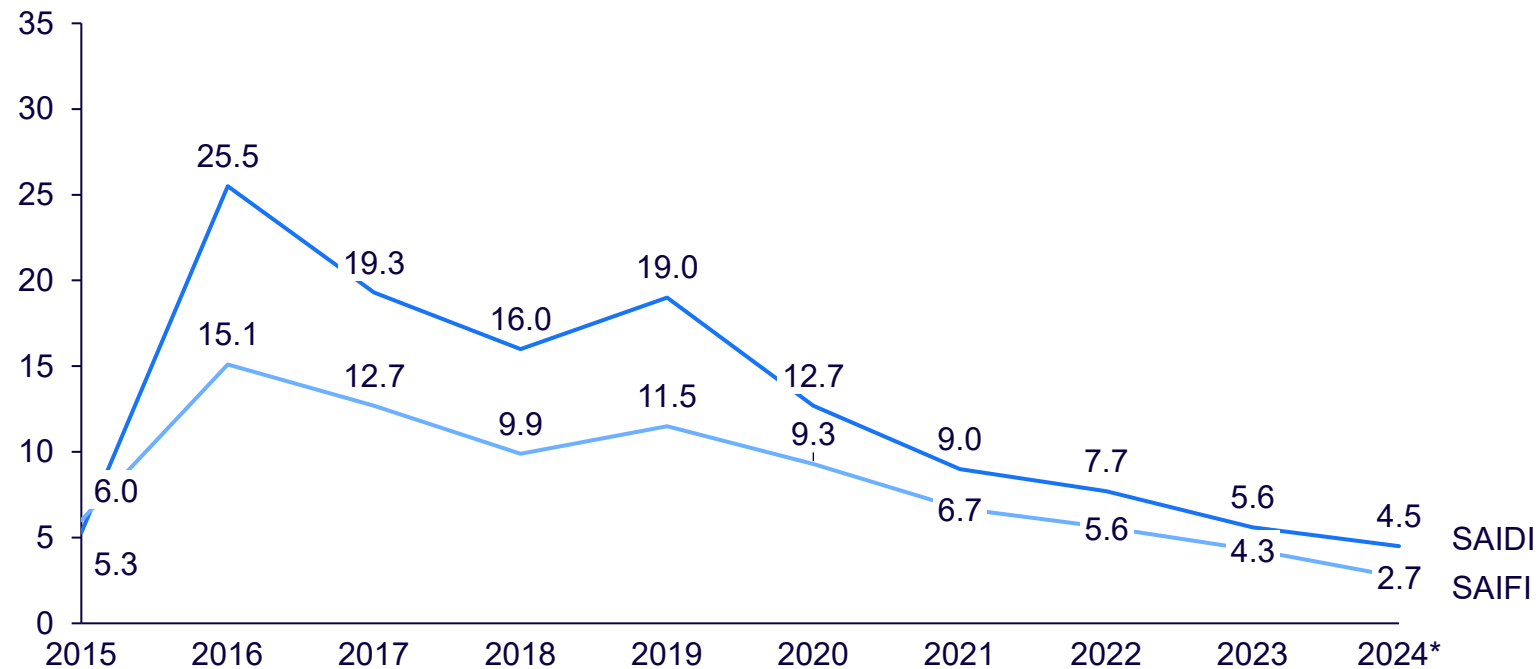
Source : World Economic Forum Report, *Fostering Effective Energy Transition 2025*

## インドネシアの電力供給信頼性は過去10年で大きく改善し、SAIDIとSAIFIは80%以上低下したが、改善の多くは都市部に集中している

### Electricity Quality Index

2015 – 2024

#### SAIDI<sup>1</sup> and SAIFI<sup>2</sup> index

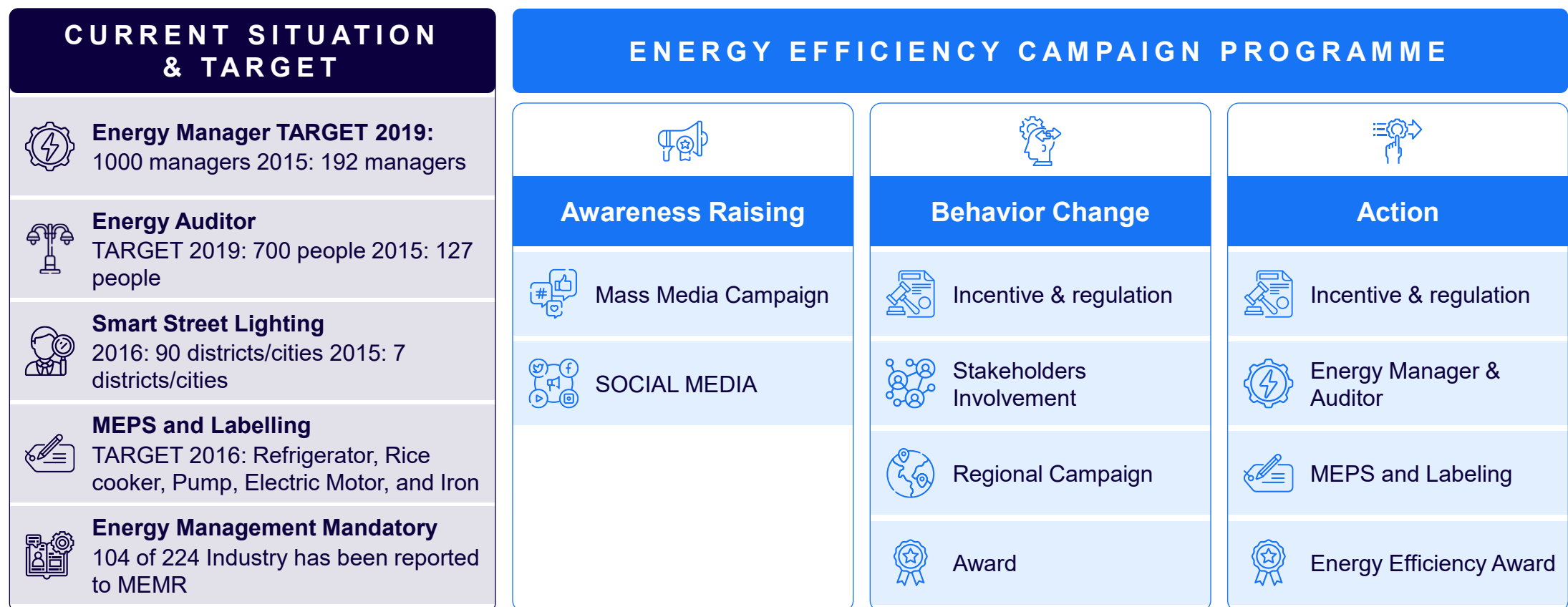


#### COMMENTS

- Indonesia's electricity supply reliability has significantly improved over the past decade, **with SAIDI and SAIFI at >80% reduction**
- According to PLN, this improvement is a result of technology integration and infrastructure monitoring
  - **Integration of PLN Mobile, Virtual Commander Center, and real-time monitoring enable rapid fault detection and real-time complaint mechanism**, allowing for a faster and quicker fix to electricity-related issue
  - However, improvement is still heavily concentrated in urban areas only

インドネシアは省エネプログラムを導入し、エネルギーマネージャー育成や監査員拡充、スマート街路灯や効率ラベリングを推進し、認知向上・行動変容・規制強化を進めている

## Energy efficiency implementation strategy







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10. 電力需給状況

## インドネシアの送電網はMEMR規則20/2020で統一され、再エネ統合を前提に技術基準や保護規程、電圧・周波数安定性、関係主体の責務が定められている

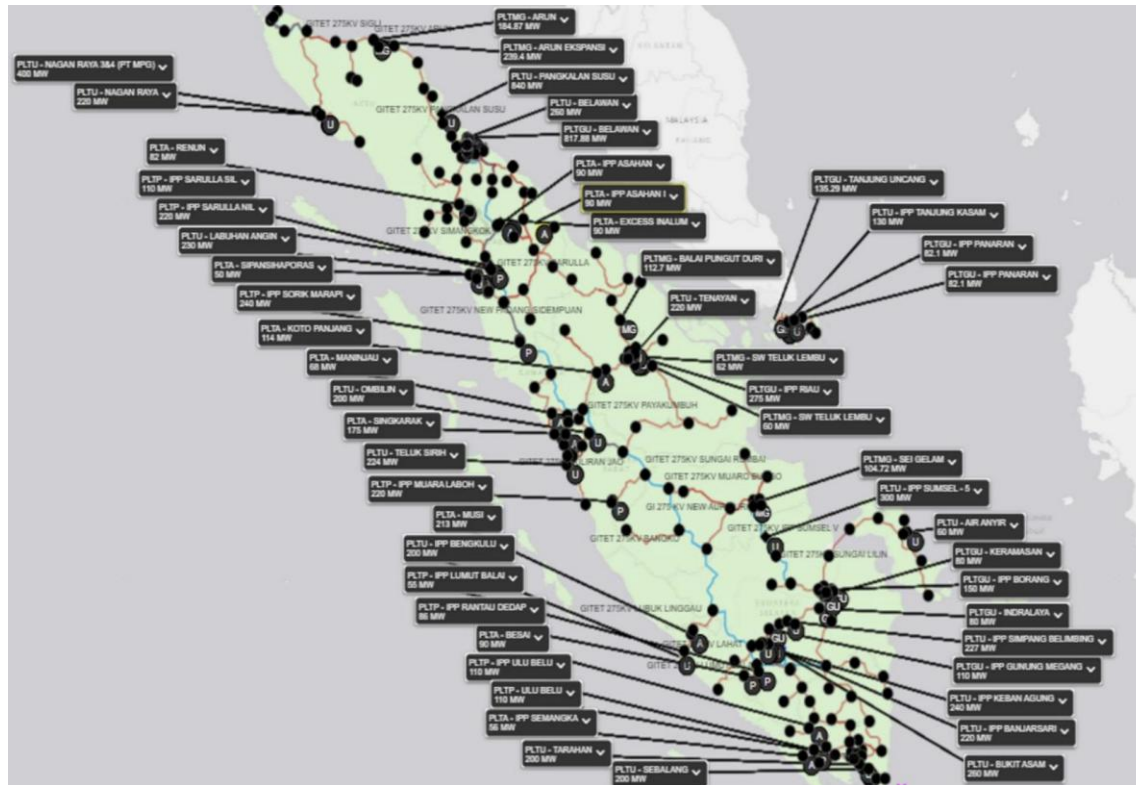
### Overview of power transmission grid law

 <p><b>MEMR Regulation 20/2020</b></p> <p><b>Electric Power System Network Rules</b></p>	 <p><b>Objective</b></p>	<p>Ensure a safe, reliable, and efficient national power grid that optimally integrates RE sources while clearly defining technical standards, roles and responsibilities of related stakeholders (i.e., PLN)</p>
	 <p><b>Detail</b></p>	<ul style="list-style-type: none"> <li>• Define protection standards and coordination schemes of grid lines</li> <li>• Ensures operational stability by standardizing SI<sup>1</sup> of at least 99.5% and meet DI requirements for protection systems</li> <li>• Optimize network infrastructure use, maintain voltage within ~10% of nominal and frequency at 50 Hz</li> <li>• Provisions for RE plants integrations standard and stakeholder responsibilities</li> </ul>
	 <p><b>Status</b></p>	<p><b>Active.</b> Created to replace and revoke MEMR No. 18/2016 on Kalimantan Ntework, MEMR No. 2/2015 on Sulawesi Network, MEMR No. 37/2008 on Sumatra Network, MEMR No. 3/2007 on Jawa-Madura-Bali Network</p>

## スマトラ島では500kV幹線や150kV送電線整備により、地域間連系と系統信頼性強化を図る計画である



### Sumatra System Transmission Development Plan 2025 – 2034



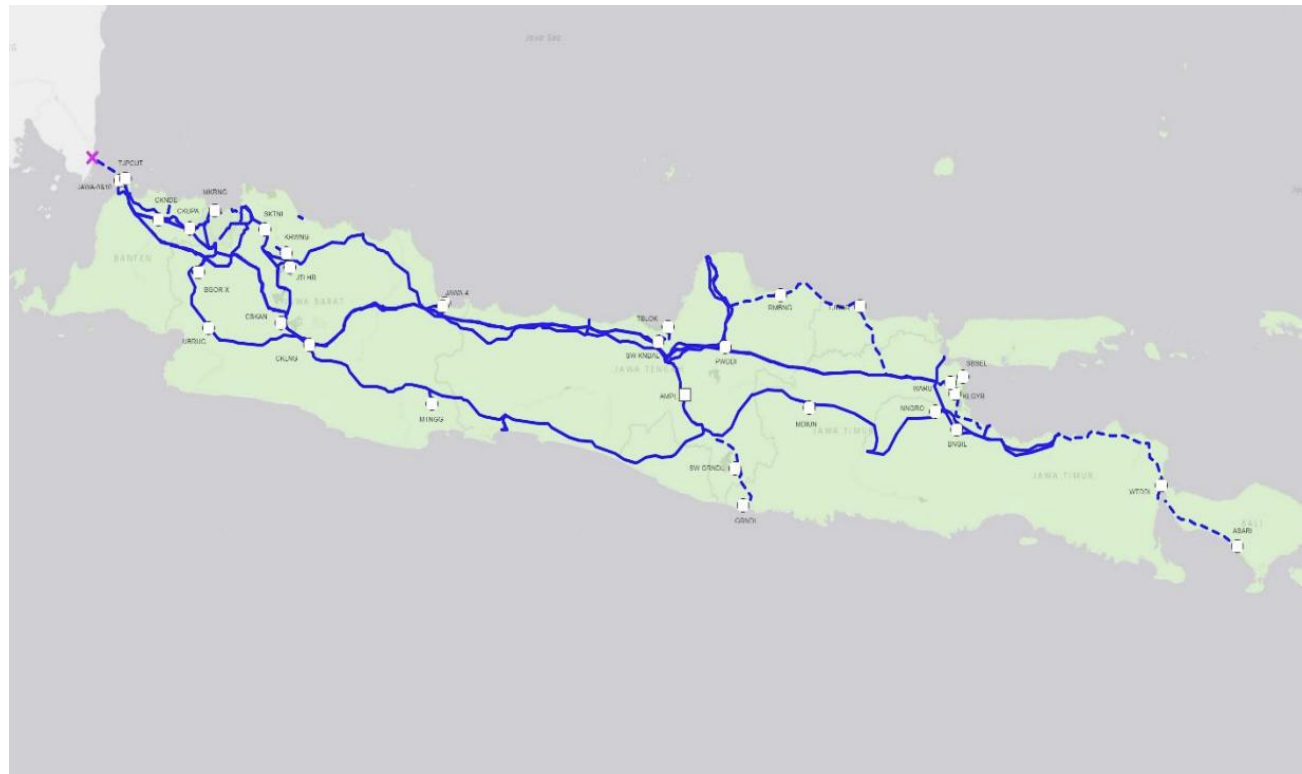
#### DEVELOPMENT PLAN

- 500 kV transmission backbone from South Sumatra to North Sumatra
  - 500 Kv New Aur Duri – Peranap – Perawang SUTET was energized in 2024
  - 500 kV Muara Enim – New Aur Duri SUTET is currently delayed
  - 500 kV Perawang – Rantau Prapat – Galang SUTET will be commissioned based on system need
- Reinforcement of Palembang supply via new 275 kV Betung – North Palembang transmission line, targeted for 2025 operation
- Construction of 150 kV transmission and substations in Medan, Benda Aceh, Pekan Baru, Padang, Jambi, Bandar Lampung
- 150 kV development plan for sea-cable links for Sumatra-Bengkalis and Sumatra-Selat Panjang
- Plan of Sumatra – Batam interconnection at 500 kV for industrial estates (Bintan)
- Other plans include new construction and development of existing 70 kV and 150 kV transmission lines across Sumatra system to improve reliability and reduce transmission bottlenecks

## ジャワ・バリ島では500kV送電線増設と150kV区間の強化を進め、主要都市の供給信頼性を高めつつバリ島へ再エネ電力を送る計画である



### Java Bali System Transmission Development Plan 2025 – 2034



----- New plan for 500 kV

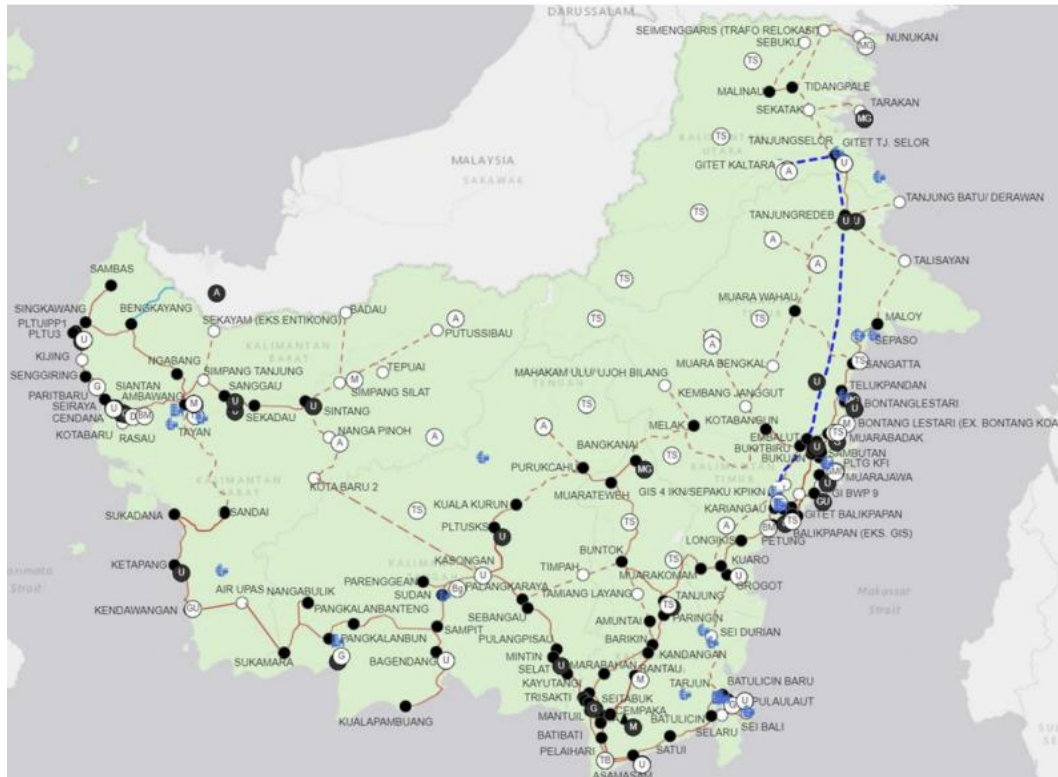
#### DEVELOPMENT PLAN

- Projects are currently facing delays in construction due to licensing and social issues, therefore PLN is making efforts to reconductor some 500 kV or 150 kV transmission sections utilise existing 150 kV transmission sections to be built into 500 kV transmissions in major cities instead
- 66 kV systems: uprated to increase power flow capacity and supply reliability, while the transmission lines will be utilised for 150 kV transmission
- W. Java: 500 kV North Jakarta loop, 150 kV SUTET/SKLTET outlets new GITET Cikande
- C. Java: 275 kV improvement for Cibinong – Depok system reliability
- E. Java, Madura and Bali: Increase supply via multiple GITETs to underserved cities and industrial areas. 500 kV Java Bali Connection aims to supply Bali island with cheap energy from large PPs in Java, while Bali PPs will be EBT
- Sumatra – Java interconnection by leveraging RE capacity

## カリマンタン島では西部とサラワクとの国際連系や500kV送電線新設を含む計画で、新首都と周辺需要に対応する



### Kalimantan System Transmission Development Plan 2025 – 2034



- New plan for 500 kV
- New plan for 150 kV

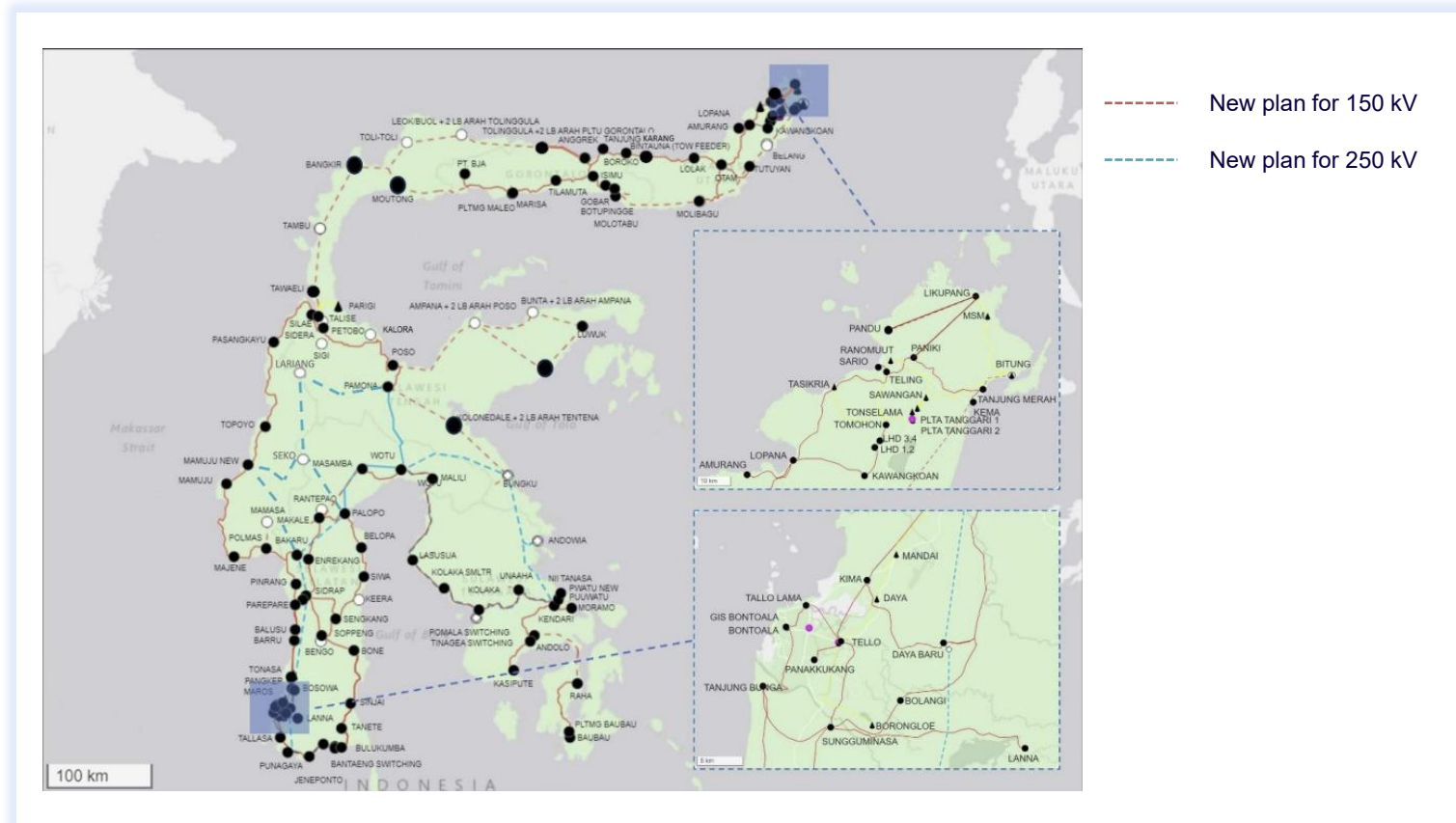
#### DEVELOPMENT PLAN

- The main goal of the plan in Kalimantan is to connect the existing isolated systems, especially the cross-border interconnection between W. Kalimantan and Sarawak that is already in operation
- Main: 500 kV line from N. hydro PP) to E. Kalimantan (new capital)
- Other plans include:
  - 150 kV line built in 2023 to connect W. Kalimantan system to Kalseltengtimra System
  - 150 kV Selor – Tidang Pale transmission to link Kaltara subsystem to main grid
  - 150 kV Tarakan – Sekatak transmission
  - 150 kV Bangkanai - Melak - Kota Bangun transmission to strengthen the Kalseltengtimra interconnection
  - 150 kV Embalut - New Samarinda - Sambera transmission to support the supply of power from the Embalut plant to the load centre
  - Transmission of 150 kV Tanjung Redep - Tanjung Selor - Tidang Pale – Terakan - Malinau to improve the reliability of supply to the cities in N. Kalimantan

# スラウェシ島では275kV南部ループ建設と150kV強化により、中央～南部系統の統合と孤立地域の接続を進める



## Sulawesi System Transmission Development Plan 2025 – 2034



### DEVELOPMENT PLAN

- The priority is to build a ~4,012 km 275 kV Sulawesi backbone to connect Central to Southern Sulawesi, and connect isolated areas with nearest grid (Sulbagsel / Sulbagut)
- Sulbagsel 275 kV routes within Southeast Sulawesi Corridor (~968 km), Southern Sulawesi Corridor (~956 km), Southeast loop (~952 km), and Southwest loop (~1,096 km) with COD in 2026, 2028, 2029, and 2031 respectively
- Sulbagut loop upgrades (150 kV)
  - East Loop constituting of Minahasa (Tanjung Merah – Bitung) to strengthen grid lines
  - South Loop ( Minahasa – Gorontalo) to accelerate interconnection between North Sulawesi and Gorontalo
  - West Loop (Gorontalo – Central Sulawesi)

# マルク・北マルクでは150kV・70kV送電線や海底ケーブルで島嶼部を結び、ガス・地熱・太陽光を組み合わせた供給体制を構築する

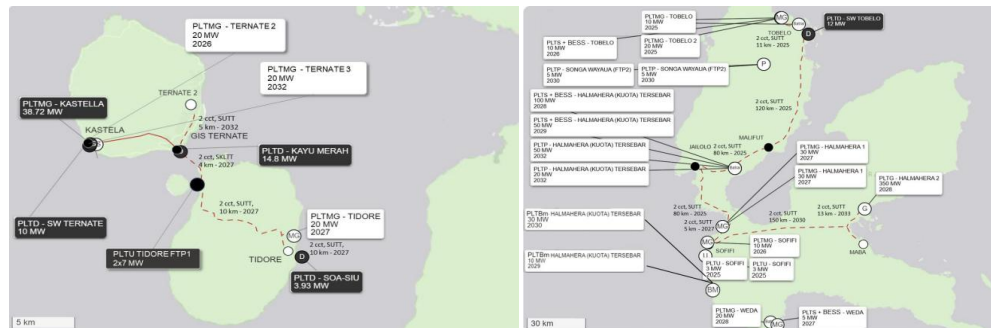


## Maluku and North Maluku (E. Indonesia) System Transmission Development Plan, 2024 – 2035

### Maluku



### North Maluku



## DEVELOPMENT PLAN

### Maluku

- Most of Maluku Province's grids remain isolated, especially on Seram and Buru islands despite Ambon having a 150 kV interconnection
- Development plan for Seram 150 kV interconnection and Buru Island 70 kV interconnection
  - Build 150 kV overhead transmission for Taniwel – Piru – Kairatu – Masohi, including new substation
  - Build 70 kV overhead transmission for Namrole – Mako – Namlea, including new substations

### North Maluku

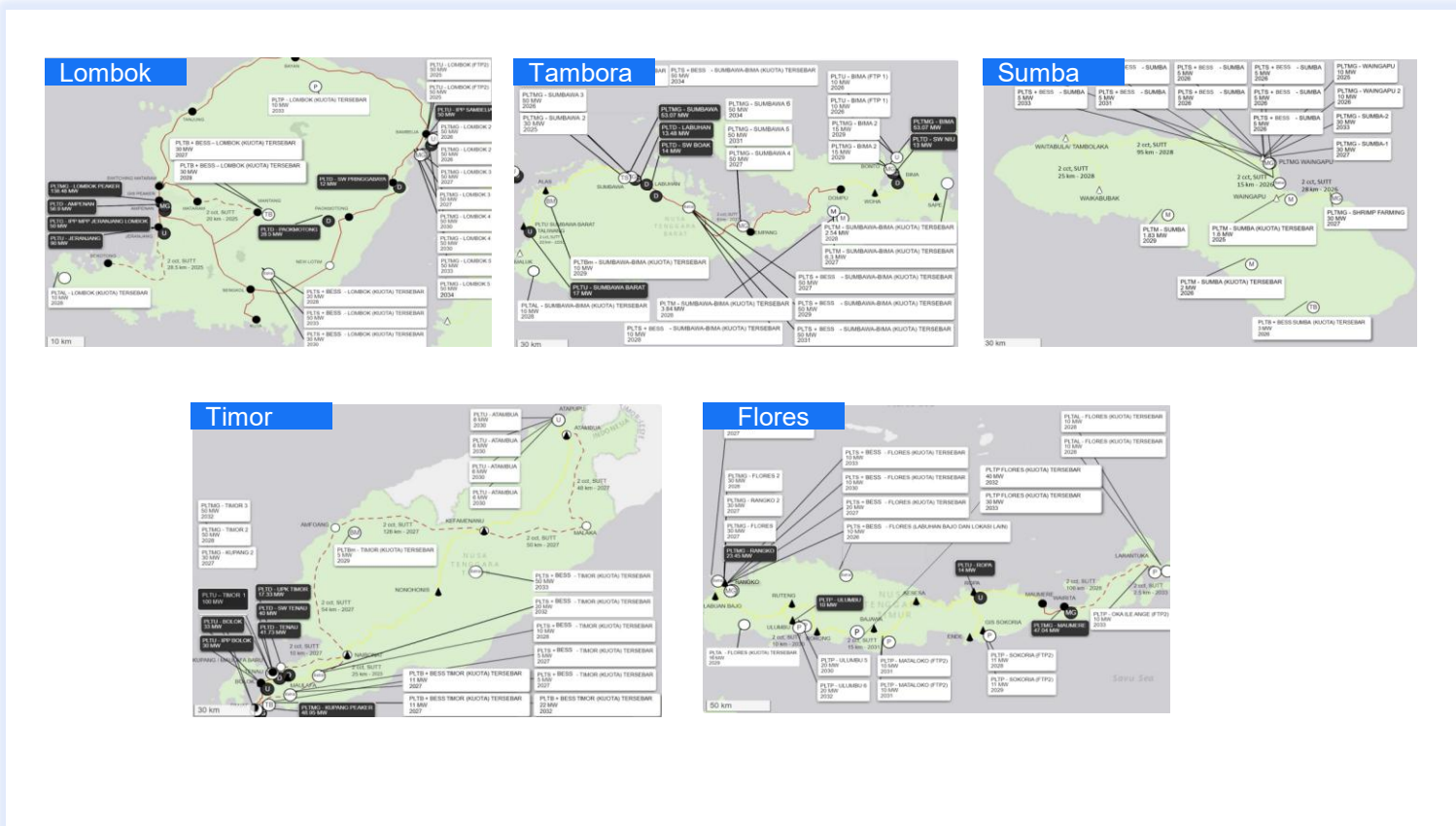
- Halmahera, Ternate and Tidore systems will increasingly rely on gas, geothermal and solar generation
  - Plan for submarine 150 kV cables
  - Build 150 kV network linking Tobelo – Malifut – Jailolo – Sofifi – Maba for Halmahera interconnection



# パプア島では2025~2034年にかけて、ジャヤプラやワメナ、ティミカ、マノクワリ、ソロンを中心に150kV送電線と変電所を新設・連系する計画が進められている



## Nusa Tenggara (E. Indonesia) System Transmission Development Plan, 2025 – 2034



### DEVELOPMENT PLAN

Priority development plan for two largest islands in West Nusa Tenggara consisting of Lombok and Sumbawa Island

- Construction of looping and alternatives route and improve grid stability of above the head transmission or 150 kV Mataram – Mantang (Lombok)
- Construction of transmission line to connect isolated system with 70 kV interconnected system in Sumba (Waikabubak – Tambolaka – Waingapu)

Priority development plan for East Nusa Tenggara in three largest islands consisting Flores, Timor, and Sumba

- Construction of looping and alternatives route and improve grid stability of above the head transmission or 150 kV Panaf – Naibonat (Timor system)
- Construction of transmission line of 150 kV PLTMG Maumere – Larantuka in Flores

## PLNはインドネシアの送配電網の大部分を所有・運営しており、2034年までに55,000kmの送電網と456,547kmの配電網を新設して系統信頼性向上と再エネ統合を進める計画

### Transmission network operator & future plans



- **Majority of transmission networks belongs to and are operated by PLN.** Certain transmission lines are privately operated and belong to IPPs, particularly those that are close to PLN's substations in remotely located power plant areas
- Indonesia aims to build an additional 55,000 km of new transmission network by 2034. Huge addition will take place in 2025-2027 due to delays in completion of projects that should have been operational before 2024
- PLN has identified key areas for transmission network development as part of its planning, e.g:
  - the development of a strong backbone connection network interconnection network for Sumatra and Kalimantan
  - Reconstruction and upgrading transmission lines that do not meet reliability criteria or face social and permit-related challenges
  - Expansion of the transmission network extends to isolated systems served by PLTD BBM
  - Determination of GI location by considering the economics of high voltage transmission system facility construction costs, land acquisition costs, medium voltage distribution system facility construction costs

### Distribution network operator & future plans



- Similar to transmission networks, **Indonesian law stipulates that distribution networks in Indonesia belong to, and are operated by, a utility within a defined area.** Each becomes known as an electricity exclusive area of that utility. **In practice, all distribution networks belong to and are operated by PLN.**
- The country's electricity distribution network currently uses 20 kV for JTM and 220 V lines for JTR
- Indonesia aims to build more than 456,547 km of new distribution lines by 2034; split into ~240,000 km overhead, ~180,000 km underground, and ~36,000 km of IPP lines
- Indonesia's main focus of investment in network expansion is to serve customer growth, improve service facilities as well as improve the ability of the distribution network to integrate renewable energy sources into the system with 4 key focus areas:
  - Improving service voltage
  - Improving System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) numbers
  - Reducing network technical losses
  - Rehabilitating old networks

## 計画中の送電線プロジェクトの一覧 – Aceh

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GITET Sumatera 2	GITET Sumatera 1	500	New, 2 cct, SUTET	551	2033	2033	Plan
2	Pangkalan Susu	Arun	275	New, 2 cct, SUTET	448	2026	2026	Procurement
3	Arun	Sigli	275	New, 2 cct, SUTET	294	2026	2026	Procurement
4	Arun	KTT Augustus Global Investment	275	New, 2 cct, SUTET	3	2030	2030	Plan
5	GITET Sumatera 3	GITET Sumatera 2	275	New, 2 cct, SUTET	195	2033	2033	Plan
6	Blang Pidie	Tapak Tuan	150	New, 2 cct, SUTT	130	2025	2025	Construction
7	Banda Aceh	Lampisang/PLTB Aceh	150	New, 2 cct, SUTT	30	2026	2026	Plan
8	Arun	GI Switching PIM & Pupuk Indonesia JV	150	New, 2 cct, SUTT	15	2026	2026	Plan
9	Calang	Meulaboh	150	New, 2 cct, SUTT	128	2027	2027	Plan
10	Tapak Tuan	Subulussalam	150	New, 2 cct, SUTT	280	2027	2027	Committed
11	GI Switching Kota Fajar	Inc 2 Phi (Tapak Tuan - Subulussalam)	150	New, 4 cct, SUTT	4	2027	2027	Plan
12	GI Switching Kota Fajar	PT Kota Fajar Semen Indonesia	150	New, 2 cct, SUTT	1	2027	2027	Plan
13	Kumbih	Inc. 2 Phi(Sabulussalam- Sidikalang)	150	New, 2 cct, SUTT	10	2029	2029	Construction
14	Takengon	Blangkejeren	150	New, 2 cct, SUTT	206	2029	2029	Plan
15	Calang	Lampisang/PLTB Aceh	150	New, 2 cct, SUTT	108	2032	2032	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – North Smatra

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Galang	Rantau Prapat	500	New, 2 cct, SUTET	440	2028	2028	Plan
2	Inalum/Kuala Tanjung	Inc. 2 Phi (Galang - Rantau Prapat)	500	New, 4 cct, SUTET	20	2032	2032	Plan
3	GITET Sumatera 1	PLTA Pump Storage	500	New, 2 cct, SUTET	85	2033	2033	Plan
4	Galang	PLTA Pump Storage-1	500	New, 2 cct, SUTET	100	2033	2033	Plan
5	Pangkalan Susu	Medan Barat	275	New, 2 cct, SUTET	120	2026	2026	Procurement
6	PLTA Batang Toru	Inc. 2 Phi (Sarulla- Pd.Sidempuan)	275	New, 2 cct, SUTET	40*	2026	2026	Construction
7	Sarulla	Rantau Prapat	275	New, 2 cct, SUTET	240	2028	2028	Plan
8	Galang	Medan Timur	275	New, 2 cct, SUTET	40	2032	2032	Plan
9	Simangkok	PLTA Asahan III (FTP 2)	150	New, 2 cct, SUTT	22	2025	2025	Construction
10	Medan Barat	Inc. 2 Phi (Glugur-Paya Geli) #arah Glugur	150	New, 2 cct, SUTT	2	2026	2026	Procurement
11	Medan Barat	Inc. 2 Phi (Glugur-Paya Geli) #arah payageli	150	New, 2 cct, SUTT	2	2026	2026	Procurement
12	PLTP Sorik Marapi (FTP 2)	Natal	150	New, 2 cct, SUTT	106	2026	2026	Committed
13	Natal	Ujung Gading	150	New, 2 cct, SUTT	154	2026	2026	Committed
14	Medan Timur	Inc. 2 Phi (KIM - SeiRotan)	150	New, 4 cct, SUTT	4	2027	2027	Plan
15	Medan Timur	Inc. 2 Phi (Belawan - Sei Rotan)	150	New, 4 cct, SUTT	20	2027	2027	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Riau

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Rantau Prapat	Perawang/Riau 2	500	New, 2 cct, SUTET	560	2028	2028	Plan
2	Peranap	LP Sungai Guntung	500	New, 2 cct, HVDC	360	2031	2031	Plan
3	Peranap	LP Sungai Guntung	500	New, 2 cct, HVDC	360	2032	2032	Plan
4	Perawang (HVDC)	Peninsular (Malaysia)	500	New, 2 cct, HVDC	300	2034	2034	Plan
5	Sorek	Inc. 2 phi (Rengat- Pangkalan Kerinci)	150	New, 4 cct, SUTT	1	2025	2025	Construction
6	KID	Pakning	150	New, 2 cct, SUTT	134	2025	2025	Construction
7	Lubuk Gaung	Dumai	150	New, 2 cct, SUTT	60	2025	2025	Procurement
8	Pakning	Bengkalis	150	New, 2 cct, SKLT	14	2026	2026	Procurement
9	Siak Sri Indra Pura	Landing Point Arah Selat Panjang	150	New, 2 cct, SUTT	70	2026	2026	Procurement
10	Landing Point Arah Selat Panjang	Landing Point Selat Panjang	150	New, 2 cct, SKLT	10	2026	2026	Procurement
11	Landing Point Selat Panjang	Selat Panjang	150	New, 2 cct, SUTT	90	2026	2026	Procurement
12	Bangkinang	Lipat Kain	150	New, 2 cct, SUTT	70	2026	2026	Committed
13	Selat Panjang	Pulau Rangsang	150	New, 2 cct, SKLT	6	2026	2026	Committed
14	Pulau Rangsang	Landing Point Arah TBK	150	New, 2 cct, SUTT	120	2026	2026	Committed
15	Landing Point Arah TBK	Landing Point TBK	150	New, 2 cct, SKLT	70	2026	2026	Committed

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Riau Islands

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GI Rempang	LP Sabang Mas	500	New, 2 cct, SUTET	24	2032	2032	Plan
2	LP Sabang Mas	LP Ngenang	500	New, 2 cct, SKLTET	6	2032	2032	Plan
3	LP Ngenang	Ngenang	500	New, 2 cct, SUTET	6	2032	2032	Plan
4	Ngenang	LP Tanjung Taloh (Bintan)	500	New, 2 cct, SKLTET	10	2032	2032	Plan
5	LP Tanjung Taloh (Bintan)	GITET Bintan	500	New, 2 cct, SUTET	90	2032	2032	Plan
6	GITET Bintan	GITET KTT BAI/DataCenter	500	New, 2 cct, SUTET	26	2032	2032	Plan
7	LP Sungai Guntung	GI Rempang/TanjungGundap	500	New, 2 cct, HVDC	156	2031	2031	Plan
8	LP Sungai Guntung	GI Rempang	500	New, 2 cct, HVDC	156	2032	2032	Plan
9	Landing Point TBK	Tanjung Balai Karimun	150	New, 2 cct, SUTT	14	2026	2026	Committed
10	Sri Bintan	KTT Bintan ResortCakrawala	150	New, 2 cct, SUTT	10	2030	2030	Plan
11	GI Rempang/Tanjung Gundap	GI Panaran (Batam)*	150	New, 2 cct, SUTT	40	2031	2031	Plan
12	Tanjung Uban (rekonduktoring)	Sri Bintan (rekonduktoring)	150	Rec, 2 cct, SUTT	32	2031	2031	Plan

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Bangka Belitung

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Belinyu	Kelapa	150	New, 2 cct, SUTT	110	2026	2026	Plan
2	Sumatera Landing Point (Tahap 2)	Bangka Landing Point (Tahap 2)	150	New, 2 cct, SKLT	30	2028	2028	Plan
3	Koba	Bangka Landing Point (Tahap 2)	150	New, 2 cct, SUTT	132	2028	2028	Plan
4	Pangkal Pinang 2	Air Anyir	150	New, 2 cct, SUTT	22	2028	2028	Plan
5	PLTN Sumatera-Bangka (Kuota) tersebar New EBT	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	20*	-	2032	Plan
6	Suge (Rekonduktoring)	Dukong (Rekonduktoring)	70	Rec, 2 cct, SUTT	110	2027	2027	Plan
7	Dukong	PLTMG Belitung 1	70	New, 2 cct, SUTT	30	2027	2027	Plan
8	PLTS Sumatera (Kuota) Tersebar 10 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	10*	2027	2027	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Sumatera

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GIS Kota Padang	Single Phi PIP/LubukAlung-Pauhlimo (Lokasi Bingkuang)	150	New, 2 cct, SKTT	16	2025	2025	Procurement
2	Ujung Gading	Simpang Empat	150	New, 2 cct, SUTT	140	2026	2026	Committed
3	Sungai Penuh	Tapan	150	New, 2 cct, SUTT	80	2028	2028	Plan
4	Bingkuang	Inc. 2 Phi (Pauh Limo - L.Alung)	150	New, 2 cct, SUTT	0.2	2029	2029	Plan
5	Pangkalan	Inc. 2 Phi (Payakumbuh-Kotopanjang)	150	New, 2 cct, SUTT	1	2029	2029	Plan
6	Masang-2	GI Switching Tigo Nagari	150	New, 2 cct, SUTT	46	2029	2029	Plan
7	GI Switching Tigo Nagari	Inc. 2 Phi (Maninjau - Simpang Empat)	150	New, 4 cct, SUTT	2	2029	2029	Plan
8	PLTMG Sumbagteng 25MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	10*	2028	2028	Plan
9	PLTA Sumbagselteng (Kuota) Tersebar 110 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	20*	2031	2031	Plan
10	PLTA Sumatera (Kuota) Tersebar 350 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	20*	2031	2031	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Jambi

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	New Aurduri	PLTU Jambi 1	500	New, 2 cct, SUTET	80*	2030	2030	PPA
2	New Aurduri	PLTU Jambi 2	500	New, 2 cct, SUTET	160*	2032	2032	PPA
3	New Aurduri	KTT Sembcorp	275	New, 2 cct, SUTET	20	2027	2027	Plan
4	PLTA Merangin	Inc. (Arah Bangko)	150	New, 2 cct, SUTT	2*	2025	2025	Construction
5	PLTA Merangin	Inc. (Arah Sungai Penuh)	150	New, 2 cct, SUTT	2*	2025	2025	Construction
6	Kuala Tungkal	Pelabuhan Dagang	150	New, 2 cct, SUTT	70	2025	2025	Construction
7	Seko	Inc. 2 Phi (Aurduri-Payoselincah)	150	New, 4 cct, SUTT	1	2026	2026	Procurement
8	Seko	Tx Muara Sabak	150	New, 2 cct, SUTT	0.4	2026	2026	Procurement
9	GI/GIS Kota Jambi	Payo Selincah	150	New, 2 cct, SKTT	30	2027	2027	Plan
10	Bangko	PLTA BendunganMerangin	150	New, 2 cct, SUTT	30*	2032	2032	Plan
11	PLTP Sungai Penuh	Sungai Penuh	150	New, 2 cct, SUTT	84	2033	2033	Plan
12	PLTS Sumatera (Kuota) Tersebar 100 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	10*	2034	2034	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – South Sumatera

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Muara Enim/Sumsel 1	New Aur Duri/ Jambi 2	500	New, 2 cct, SUTET	480	2026	2026	Construction
2	Muara Enim	Sribawono	500	New, 2 cct, SUTET	600*	2031	2031	Plan
3	Muara Enim (tx) (Sirkuit 2)	Gumawang (Sirkuit 2)	275	New, 1 cct, SUTET	86	2025	2025	Construction
4	Muara Enim(Sirkuit 2)	Muara Enim (tx) (incomer2/arah Gumawang) (Sirkuit 2)	275	New, 1 cct, SUTET	32	2025	2025	Construction
5	Betung	Palembang - 1/Palembang Utara	275	New, 2 cct, SUTET	140	2025	2025	Construction
6	PLTU Sumsel-1	Betung	275	New, 2 cct, SUTET	160*	2025	2025	Construction
7	Sarolangun	Muara Rupit	150	New, 2 cct, SUTT	80	2025	2025	Construction
8	Lubuk Linggau	Tebing Tinggi (Sirkuit 2)	150	New, 1 cct, SUTT	55	2025	2025	Construction
9	Tugumulyo	Gumawang	150	New, 2 cct, SUTT	60	2025	2025	Construction
10	PLTSa Palembang	Inc. 2 Phi (Keramasan-Gandus)	150	New, 2 cct, SUTT	14*	2025	2025	PPA
11	Tx1 Tanjung Api- Api	Tx2 Tanjung Api-Api	150	New, 1 cct, SKTT	4	2025	2025	Construction
12	PLTU Sumbagsel-1	Baturaja	150	New, 2 cct, SUTT	20*	2025	2025	PPA
13	Pangkalan Balai	Inc. 2 Phi (Betung-Talang Kelapa)	150	New, 4 cct, SUTT	14	2027	2027	Plan
14	Mariana	Sumatera Landing Point 2	150	New, 2 cct, SUTT	220	2028	2028	Plan
15	Bukit Asam	Kawasan Industri Tanjung Enim / Bukit Asam Coal Based	150	New, 2 cct, SUTT	10	2030	2030	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Bengkulu

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Manna	Bintuhan	150	New, 2 cct, SUTT	124	2025	2025	Construction
2	Muko-Muko	Arga Makmur	150	New, 2 cct, SUTT	292	2028	2028	Plan
3	Pekalongan	PLTP Hululais	150	New, 2 cct, SUTT	100	2028	2028	Plan
4	Kepahiang	Inc. 2phi (Pekalongan - Pulo Baai)	150	New, 2 cct, SUTT	20	2030	2030	Plan
5	Bintuhan	PLTP Danau Ranau	150	New, 2 cct, SUTT	77	2033	2033	Plan

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Lampung

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Sribawono	Ketapang	500	New, 2 cct, HVDC	200*	2031	2031	Plan
2	Gumawang	Lampung-1	275	New, 2 cct, SUTET	324	2025	2025	Construction
3	Dente Teladas	Seputih Banyak	150	New, 2 cct, SUTT	120	2025	2025	Construction
4	Gedong Tataan	Teluk Ratai	150	New, 2 cct, SUTT	60	2025	2025	Construction
5	Lampung-1	Inc. 2 Phi (Tegineneng - Metro - Sribawono) Arah Tegineneng	150	New, 2 cct, SUTT	4	2025	2025	Procurement
6	Lampung-1	Inc. 2 Phi (Tegineneng - Metro - Sribawono) Arah Metro/Sribawono	150	New, 2 cct, SUTT	4	2025	2025	Construction
7	Tegineneng (Upgrade Tower)	Lampung-1 (Upgrade Tower)	150	Rec, 2 cct, SUTT	10	2025	2025	Procurement
8	Garuntang	New Tarahan	150	New, 2 cct, SUTT/SKTT	20	2026	2026	Committed
9	Teluk Betung	Garuntang	150	New, 2 cct, SUTT/SKTT	10	2027	2027	Plan
10	Liwa	Krui	150	New, 2 cct, SUTT	80	2027	2027	Plan
11	Traya	Inc. 2 Phi (Pakuan Ratu - Menggala)	150	New, 2 cct, SUTT	4	2027	2027	Plan
12	Kalianda	PLTP Rajabasa	150	New, 2 cct, SUTT	40*	2031	2031	Plan
13	Sumatera BESS-1 50 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	10*	2027	2027	Plan
14	PLTP Sumatera (Kuota) Tersebar 40 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	20*	2027	2027	Plan
15	PLTGU Sumbagsel- 2/Lampung 250 MW	GI Eksisting/Baru Sumatera	150	New, 2 cct, SUTT	10*	2028	2028	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Kalimantan

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Sandai	Tayan	150	New, 2 cct, SUTT	332	2025	2025	Construction
2	Air Upas	Inc 2 phi (Kendawangan- Sukamara)	150	New, 4 cct, SUTT	20	2025	2025	Committed
3	Ambawang	Inc 2 phi (Siantan- Tayan)	150	New, 4 cct, SUTT	14	2025	2025	Committed
4	Sintang	Nanga Pinoh	150	New, 2 cct, SUTT	112	2025	2025	Committed
5	Parit Baru	Siantan	150	Upr, 2 cct, SUTT	35	2026	2026	Procurement
6	Simpang Silat	Putussibau	150	New, 2 cct, SUTT	332	2026	2026	Committed
7	Sintang	Simpang Silat	150	New, 2 cct, SUTT	110	2026	2026	Committed
8	Simpang Tanjung	Inc 2 Phi (Tayan- Sanggau)	150	New, 4 cct, SUTT	8	2026	2026	Committed
9	Simpang Tanjung	Sekayam	150	New, 2 cct, SUTT	130	2026	2026	Committed
10	PLTGU Kalbar- 1	Inc 2 Phi (Ketapang - Kendawangan)	150	New, 4 cct, SUTT	5.6	2026	2026	Plan
11	Kalbar-1 (PLTS+BESS)	GIEksisting/Baru Sistem Khatulistiwa	150	New, 2 cct, SUTT	10*	2026	2026	Plan
12	Badau	Simpang Silat	150	New, 2 cct, SUTT	204	2026	2027	Committed
13	Tayan	PLTS Kalbar	150	New, 2 cct, SUTT	10	-	2028	Plan
14	Ambawang	Sei raya	150	New, 2cct, SKTT	16	2027	2028	Plan
15	Siantan	Tayan	150	Upr, 2 cct, SUTT	200	2028	2028	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – South Kalimantan

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Asam-asam	Satui	150	Upr, 2 cct, SUTT	128	2025	2025	Construction
2	Satui	Batulicin	150	Upr, 2 cct, SUTT	150	2025	2025	Construction
3	Batulicin Baru	Inc 2 Phi (Batulicin - Tarjun)	150	New, 4 cct, SUTT	2	2025	2025	Construction
4	Inc 2 Phi (Batulicin - Pulau Laut)	Selaru	150	New, 4 cct, SUTT	1	2025	2025	Construction
5	Tarjun	Sei Durian	150	New, 2 cct, SUTT	169	2026	2026	Procurement
6	PLTB Tanah Laut	Inc 2 phi (Mantuil-Asam- Asam)	150	New, 2 cct, SUTT	20*	2026	2026	Plan
7	Tarjun	PLTG/GU Kalselteng	150	New, 2 cct, SUTT	6	2027	2027	Plan
8	PLTG/GU Kalselteng	Pulau Laut/ L. Point Tarjun	150	New, 2 cct, SUTT	6	2028	2028	Plan
9	Seberang Barito	Kayutangi	150	Upr, 2 cct, SUTT	38	2028	2028	Plan
10	L. Point Pulau Laut	Pulau Laut	150	New, 2 cct, SUTT	3	2028	2028	Plan
11	L. Point Tarjun	L. Point Pulau Laut	150	New, 2 cct, SKLT	8	2028	2028	Plan
12	Rantau	Inc 1 phi (Barikin - Cempaka)	150	New, 2 cct, SUTT	1	2028	2028	Plan
13	Sei Tabuk	Mantuil	150	New, 2 cct, SUTT	20	2030	2030	Plan
14	Cempaka	Ulin (GIS)	150	New, 2 cct, SUTT	63	2030	2030	Plan
15	Barikin	Amuntai	150	Upr, 2 cct, SUTT	60	2030	2030	Plan
16	PLTGU Kalimantan-1	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	10	2028	-	Plan

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[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Central Kalimantan

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Puruk Cahu	Kuala Kurun	150	New, 2 cct, SUTT	94	2025	2025	Construction
2	Pangkalan Bun	PT KLM	150	New, 2 cct, SUTT	22	2025	2025	Construction
3	Sebabi	Inc 2 phi (Pangkalan Banteng - Sampit)	150	New, 4 cct, SUTT	1	2027	2027	Plan
4	Kalseltengtimra-5 (PLTS+BESS) 100 MW	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	10*	-	2027	Plan
5	Sudan	Add Inc 2 phi	150	New, 2 cct, SUTT	1	2029	2029	Plan
6	PLTU Kalselteng 3	Kasongan	150	New, 2 cct, SUTT	40*	2029	2029	Plan
7	Buntok	Tamiang Layang	150	New, 2 cct, SUTT	92	2030	2030	Plan
8	Amuntai	Tamiang Layang	150	New, 2 cct, SUTT	81	2030	2030	Plan
9	Timpah	Inc 2 phi (Buntok- Palangkaraya)	150	New, 4 cct, SUTT	1	2030	2030	Plan
10	Buntok	Palangkaraya	150	New, 2 cct, SUTT	300	2030	2030	Plan
11	PLTU MT Hybrid Kalselteng 4	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	10*	2032	2032	Plan
12	Kotabaru II	Kasongan	150	New, 2 cct, SUTT	486	2033	2033	Plan
13	PLTG/GU Kalteng	Pangkalan Bun	150	New, 2 cct, SUTT	26	2027	-	Plan
14	PLTG Kalimantan-2	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	10	2029	-	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – East Kalimantan

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Inc 2 Phi (Kariangau- Petung)	Tempadung	150	New, 4 cct, SUTT	4	2025	2025	Construction
2	Tempadung	MMP	150	New, 2 cct, SUTT	6	2025	2025	Construction
3	Tanjung Redeb	Talisayan	150	New, 2 cct, SUTT	210	2025	2025	Construction
4	Talisayan	Maloy	150	New, 2 cct, SUTT	234	2025	2025	Construction
5	Bontang Lestari (ex Bontang Koala)	Inc 2 Phi (PLTU Kaltim 2 (FTP 2) - Bontang)	150	New, 4 cct, SUTT	10	2025	2025	Procurement
6	PLTS IKN	GIS 4 IKNKIPP/Sepaku	150	New, 2 cct, SKTT	26	2026	2026	Procurement
7	Tanah Grogot	Sei Durian	150	New, 2 cct, SUTT	140	2026	2026	Procurement
8	Muara Wahau	Sangatta	150	New, 2 cct, SUTT	256	2026	2026	Committed
9	Samboja	Inc 2 Phi (Karangjoang-Harapan Baru)	150	New, 4 cct, SUTT	8	2026	2026	Committed
10	Sambutan	PLTGU Kaltim-1	150	New, 2 cct, SUTT	30	2026	2026	Plan
11	PLTGU Kaltim-1	KFI	150	New, 2 cct, SUTT	10	2026	2026	Plan
12	Melak	Kotabangun	150	New, 2 cct, SUTT	334	2027	2027	Committed
13	Kuaro	Tx Kuaro	150	New, 2 cct, SUTT	280	2027	2027	Committed
14	Tx Kuaro	GIS 4 IKNKIPP/Sepaku	150	New, 2 cct, SKTT	6	2027	2027	Committed
15	Tenggarong/Bukit Biru	GI 1 K-IKN	150	New, 2 cct, SUTT	126	2027	2027	Committed

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – North Kalimantan

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Tanjung Selor	Tidang Pale	150	New, 2 cct, SUTT	226	2025	2025	Construction
2	Sekatak	Inc 2 phi (Tanjung Selor – Tidung Pale)	150	New, 4 cct, SUTT	4	2026	2026	Committed
3	Sekatak	Landing Point Apas Payau	150	New, 2 cct, SUTT	112	2026	2026	Committed
4	Landing Point Apas Payau	Landing Point Juata	150	New, 2 cct, SKLT	4.4	2026	2026	Committed
5	Landing Point Juata	Tarakan	150	New, 2 cct, SUTT	40	2026	2026	Committed
6	Inc 2 Phi (L.Point Juata - Tarakan)	PLTMG Tarakan	150	New, 4 cct, SUTT	2	2027	2027	Plan
7	Landing Point Tinabasan	Landing Point Nunukan	150	New, 2 cct, SKLT	8.8	2028	2028	Plan
8	Malinau	Landing Point Tinabasan	150	New, 2 cct, SUTT	342	2028	2028	Plan
9	Landing Point Nunukan	Nunukan	150	New, 2 cct, SUTT	12	2028	2028	Plan
10	Kalseltengtimra-3 (PLTS+BESS) 150 MW	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	10*	-	2029	Plan
11	GITET Kaltara	GITET TJ. Selor	500	New, 2 cct, SUTET	80	2031	2031	Plan
12	GITET TJ. Selor	GITET Embalut	500	New, 2 cct, SUTET	760	2031	2031	Plan
13	PLTAKalseltengtimra(Kuota) Tersebar 300 MW	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	20*	2031	2031	Plan
14	PLTA Kalseltengtimra (Kuota) Tersebar 200 MW	GI Eksisting/Baru Sistem Kalseltengtimra	150	New, 2 cct, SUTT	20*	2031	2031	Plan
15	Sebuku	Inc 2 phi (Malinau - Nunukan)	150	New, 4 cct, SUTT	2	2032	2032	Plan

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[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Jakarta

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Gandul II / Pamulang	Inc. (Serpong - Petukangan   Bintaro)	150	New, 4 cct, SUTT	80	2025	2025	Procurement
2	Budi Kemuliaan	Kebon Sirih	150	New, 2 cct, SKTT	4	2025	2025	Procurement
3	Muara Karang Lama	Budi Kemuliaan	150	New, 2 cct, SKTT	24	2025	2025	Procurement
4	Kebon Jeruk	Duri Kosambi	150	New, 2 cct, SKTT	20	2025	2025	Procurement
5	Priok	Muara Tawar	500	New, 2 cct, SUTET	30	2025	2025	Construction
6	Setiabudi II / Casablanca	Inc. (Cawang - Abadi Guna Papan   TamanRasuna)	150	New, 4 cct, SKTT	4	2026	2026	Plan
7	Manggarai	Dukuh Atas	150	New, 1 cct, SKTT	3	2026	2026	Plan
8	Cawang Lama	Tx. Cawang Lama	150	New, 2 cct, SUTT	9.1	2026	2026	Construction
9	Duren Tiga II/ Ragunan	Tx. Ragunan	150	New, 2 cct, SUTT	2.6	2026	2026	Construction
10	Tx Cawang Lama	Tx. Ragunan	150	New, 2 cct, SKTT	3.6	2026	2026	Plan
11	Danayasa	Abadi Guna Papan	150	New, 2 cct, SKTT	4	2026	2026	Plan
12	Cawang Baru	Gandul	500	New, 2 cct, SKTET	44	2026	2026	Plan
13	Ancol II / Pinangsia	Angke	150	New, 2 cct, SKTT	10	2027	2027	Plan
14	Gambir Lama II	Inc. (Kebon Sirih - GambirLama)	150	New, 2 cct, SKTT	1	2027	2027	Plan
15	Angke	Ancol	150	New, 2 cct, SKTT	11.8	2027	2027	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Banten

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Cikupa	Inc. (Balaraja - Kembangan)	500	New, 4 cct, SUTET	4	2025	2025	Construction
2	Cikupa New	Tx. Cikupa New(Inc. Jatake - Jatake II)	150	New, 4 cct, SKTT	8.8	2025	2025	Committed
3	Tx. Cikupa New	Inc. (Jatake - Jatake II)	150	New, 4 cct, SUTT	2.4	2025	2025	Committed
4	LBE	Bojanegara	500	Rec, 2 cct, SUTET	35	2025	2025	Construction
5	PLTU Jawa-9 & Jawa-10	Inc. (Suralaya Lama - Cilegon)	500	New, 4 cct, SUTET	8	2025	2025	Construction
6	Suralaya Lama	Cilegon	500	Rec, 2 cct, SUTET	26	2025	2025	Construction
7	Lautan Baja Indonesia / LBI	Inc - (PUCAM II/Modern - Kopo)	150	New, 2 cct, SUTT	8	2025	2025	Construction
8	Serang Selatan / Baros	Serang	150	New, 2 cct, SUTT	20	2025	2025	Construction
9	Tanjung Lesung	Menes	150	New, 2 cct, SUTT	90	2025	2025	Construction
10	Tigaraksa II / Citra Maja	Tigaraksa	150	New, 2 cct, SUTT	20	2025	2025	Construction
11	Cikande	Inc. (Bojanegara- Balaraja)	500	New, 4 cct, SUTET	4	2026	2026	Procurement
12	Cikande New	Inc. (Cikande – Indah Kiat   GMS)	150	New, 4 cct, SUTT	4	2026	2026	Procurement
13	Cikande New	Cikande	150	Rec, 2 cct, SUTT	9	2026	2026	Procurement
14	Serang Selatan / Baros	Rangkas Baru	150	New, 2 cct, SUTT	60	2026	2026	Construction
15	KEK PIK	Inc. (Lontar - Teluk Naga II / Dadap)	150	New, 2 cct, SUTT	2	2027	2027	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Java

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Balongan	Inc. (Jatibarang - Arjawinangun)	150	New, 4 cct, SUTT	49	2025	2025	Procurement
2	Cibatu Baru / Deltamas	Tx. THK	150	New, 2 cct, SUTT	1	2025	2025	Plan
3	Depok II	Inc. (Tx. Cimanggis - Rawadenok(Depok III))	150	New, 2 cct, SUTT	8	2025	2025	Construction
4	Telukjambe II	KTT Indah Kiat	150	New, 1 cct, SUTT	2	2025	2025	Procurement
5	PLTA Jatigede/ Parakan Kondang Baru	Inc. (Rancaekek - Sunyaragi)	150	New, 4 cct, SUTT	20	2025	2025	Construction
6	Jatiluhur Baru	Inc. (Padalarang - Tatajabar)	150	New, 4 cct, SUTT	92	2025	2025	Procurement
7	Jatiluhur Baru	PLTA Jatiluhur	150	New, 2 cct, SUTT	20	2025	2025	Procurement
8	JISC / MOS	Jatiluhur Baru	150	New, 2 cct, SUTT	12	2025	2025	Plan
9	Switching Tegalluar	Inc. (Ujungberung - Gedebage)	150	New, 4 cct, SUTT	4	2025	2025	Committed
10	Switching Tegalluar	Traksi Tegalluar	150	New, 2 cct, SUTT	2	2025	2025	Committed
11	KTT Indorama Baru	Inc. (Padalarang Baru - Jatiluhur)	150	New, 4 cct, SUTT	12	2025	2025	Procurement
12	Muara Tawar	Inc. (Bekasi - Plumpang   Kandang Sapi)	150	New, 4 cct, SUTT	20	2025	2025	Construction
13	PLTU Pelabuhan Ratu	Pelabuhan Ratu Baru	150	New, 2 cct, SUTT	60	2025	2025	Construction
14	PLTS Saguling	Switching Rajamandala	150	New, 2 cct, SUTT	16	2025	2025	Procurement
15	Switching Rajamandala	Inc.(Cigereleng- Rajamandala)	150	New, 2 cct, SUTT	1	2025	2025	Procurement

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Central Java

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Medari	Inc. (Sanggrahan -Kentungan)	150	New, 2 cct, SUTT	1	2025	2025	Procurement
2	Beringin	Jelok	150	Rec, 2 cct, SUTT	16	2025	2025	Construction
3	Weleri	Kaliwungu	150	Rec, 2 cct, SUTT	43.9	2025	2025	Construction
4	KIT Batang	Inc. (Batang New - Weleri)	150	New, 2 cct, SUTT	11	2025	2025	Construction
5	KEK Kendal	Inc. (Weleri - Kaliwungu)	150	New, 4 cct, SUTT	36	2025	2025	Procurement
6	Kudus II / Nalumsari	Inc. (Kudus - Jepara)	150	New, 4 cct, SUTT	1	2025	2025	Construction
7	KIT Batang	Inc. (Batang New - Weleri)	150	New, 2 cct, SUTT	11	2025	2025	Construction
8	Pati II /Trangkil	Pati	150	New, 2 cct, SUTT	30	2025	2025	Procurement
9	Rawalo / Kesugihan	Inc. (PLTUAdipala - PLTU Cilacap)	500	New, 2 cct, SUTET	28	2025	2025	Procurement
10	PLTS Jawa Tengah (Kuota) II	Jawa Tengah Eksisting/Baru	150	New, 2 cct, SUTT	7	2025	2025	Plan
11	PLTS Jawa Tengah (Kuota) IV	Jawa Tengah Eksisting/Baru	150	New, 2 cct, SUTT	20	2025	2025	Plan
12	Pedan	Ampel / Tuntang	500	New, 1 cct, SUTET	56	2025	2025	Procurement
13	Ungaran	Ampel / Tuntang	500	New, 1 cct, SUTET	22.0	2025	2025	Procurement
14	Banyudono	Jajar	150	Rec, 2 cct, SUTT	14	2026	2026	Plan
15	Purwodadi	Kedungombo	150	Rec, 2 cct, SUTT	42.0	2026	2026	Plan

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – East Java

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Bangil	Inc. (Paiton - Kediri)	500	New, 4 cct, SUTET	8	2025	2025	Construction
2	Bangil	Bulukandang	150	Rec, 1 cct, SUTT	27.8	2025	2025	Construction
3	Bangil	Lawang	150	Rec, 1 cct, SUTT	32	2025	2025	Construction
4	Bangil New	Inc. (Bangil - Gempol / New Porong)	150	New, 4 cct, SUTT	2.8	2025	2025	Procurement
5	Bangil New	Inc. (Lawang - Bulu Kandang)	150	New, 2 cct, SUTT	1.6	2025	2025	Procurement
6	Bulukandang	Lawang	150	Rec, 1 cct, SUTT	20.9	2025	2025	Construction
7	Tx. Kebon Agung	Kebon Agung	150	Rec, 2 cct, SUTT	29	2025	2025	Committed
8	PLTP Ijen	Banyuwangi	150	New, 2 cct, SUTT	60*	2025	2025	Construction
9	Bangkalan	T.22	150	New, 2 cct, SUTT	17	2025	2025	Procurement
10	Kedinding	Tx. Bangkalan	150	New, 2 cct, SKTT	4	2025	2025	Procurement
11	Kedinding	Tx. Kenjeran	150	New, 1 cct, SKTT	2	2025	2025	Procurement
12	Kedinding	Tx. Ujung	150	New, 1 cct, SKTT	2	2025	2025	Procurement
13	Babat / Baureno	Lamongan	150	Rec, 2 cct, SUTT	63	2025	2025	Construction
14	Lamongan	Cerme	150	Rec, 2 cct, SUTT	40.2	2025	2025	Construction
15	Paiton	T.11 Eksisting Grati	500	New, 2cct, SUTET	7	2025	2025	Procurement

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Bali

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	PLTS Bali Barat	Negara	150	New, 2 cct, SUTT	10,92*	2025	2025	Construction
2	PLTS Bali Timur	Kubu	150	New, 2 cct, SUTT	3,16*	2025	2025	Construction
3	Nusa Dua	Tx. Pesanggaran	150	New, 2 cct, SUTT	17.3	2025	2025	Plan
4	Pesanggaran	Tx. Bandara	150	New, 2 cct, SUTT	10.1	2025	2025	Plan
5	Tx. Kapal	Pemecutan Kelod	150	New, 2 cct, SKTT	32.2	2025	2025	Plan
6	PLTMG Bali (Pesanggaran)	Pesanggaran	150	New, 2 cct, SKTT	1	2026	2026	Plan
7	Pesanggaran III/ Bali Turtle	Inc. (Pesanggaran - Sanur)	150	New, 4 cct, SUTT	2	2027	2027	Plan
8	Kubu	Pemaron	150	New, 2 cct, SUTT	105.6	2029	2029	Plan
9	PLTGU Jawa Bali-3	Tinga - Tinga	150	New, 2 cct, SUTT	2*	2028	2028	Plan
10	Tinga - Tinga	Inc.(PLTU Celukan Bawang - Kapal)	150	New, 4 cct, SUTT	2	2028	2028	Plan
11	Tinga - Tinga	Tanah Lot	150	New, 2 cct, SUTT	123.6	2028	2028	Plan
12	Tx. Gilimanuk	Tx. Celukan Bawang	150	New, 1 cct, SUTT	0.5	2028	2028	Plan
13	Pesanggaran	Padang Sambian	150	New, 2 cct, SKTT	7.89	2027	2027	Plan
14	Pesanggaran	Pemecutan Kelod	150	New, 2 cct, SKTT	4.84	2027	2027	Plan
15	Gianyar II / Bangli	Gianyar	150	New, 2 cct, SUTT	10	2028	2028	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – North Sulawesi

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Tanjung Merah	Bitung Baru	150	New, 2 cct, SUTT	40	2025	2025	Committed
2	PLTMGMinahasa	Likupang	150	New, 2 cct, SUTT	1	2026	2026	Construction
3	Belang	Tutuyan	150	New, 2 cct, SUTT	80	2027	2027	Plan
4	Kema (PLTU Sulut 3)	Belang	150	New, 2 cct, SUTT	110	2027	2027	Plan
5	Likupang	Bitung Baru	150	Upr, 1 cct, SUTT	32	2027	2027	Plan
6	Molibagu	Botupingge	150	New, 2 cct, SUTT	206	2027	2027	Plan
7	Tutuyan	Molibagu	150	New, 2 cct, SUTT	160	2027	2027	Plan
8	Lolak	Kawasan Industri Boalangan Mongondow (KIMO)	150	New, 2 cct, SUTT	8	2027	2027	Plan
9	PLTP Sulbagut (Kuota) Tersebar 30 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	20*	2027	2027	Plan
10	PLTP Sulbagut (Kuota) Tersebar 40 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	20*	2028	2028	Plan
11	PLTBm Sulbagut (Kuota) Tersebar 50 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	2028	2028	Plan
12	PLTS+BESS Sulbagut (Kuota) Tersebar 15 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	-	2028	Plan
13	PLTB + BESS Sulbagut (Kuota) Tersebar 60 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	-	2029	Plan
14	PLTS+BESS Sulbagut (Kuota) Tersebar 17MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	-	2029	Plan
15	PLTBm Sulbagut (Kuota) Tersebar Tambahan 20 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	2029	2029	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Central Sulawesi

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Kolonedale	Tentena	150	New, 2 cct, SUTT	130	2025	2025	Construction
2	Kolonedale	Bungku	150	New, 2 cct, SUTT	180	2025	2025	Construction
3	PLTMG Luwuk	Luwuk	150	New, 2 cct, SUTT	80	2025	2025	Construction
4	PLTMG Luwuk	Toili	150	New, 2 cct, SUTT	100	2025	2025	Construction
5	Ampana	Bunta	150	New, 2 cct, SUTT	170	2025	2025	Committed
6	Bunta	Luwuk	150	New, 2 cct, SUTT	190	2025	2025	Committed
7	Leok	Tolinggula	150	New, 2 cct, SUTT	220	2025	2025	Committed
8	Moutong	Tolitoli	150	New, 2 cct, SUTT	310	2025	2025	Committed
9	Pelanggan PT ACN	Bungku	150	New, 2 cct, SUTT	76	2025	2025	Construction
10	Poso	Ampana	150	New, 2 cct, SUTT	248	2025	2025	Committed
11	Tambu	PLTU Palu 3	150	New, 2 cct, SUTT	82	2025	2025	Construction
12	Toili	Ampana	150	New, 2 cct, SUTT	228	2025	2025	Committed
13	Tolitoli	Leok	150	New, 2 cct, SUTT	216	2025	2025	Committed
14	Bangkir	Incomer 2 Phi (Moutong -Toli-Toli)	150	New, 2 cct, SUTT	180	2026	2026	Committed
15	Kalora	Incomer Single Phi(Poso-Palu Baru)	150	New, 2 cct, SUTT	10	2027	2027	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Gorontalo

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Marisa TIP 205 (Incomer 1 phi (Pelanggan PT BJA - Marisa))	Moutong	150	New, 2 cct, SUTT	140	2025	2025	Construction
2	Pelanggan PT GSM	Marisa	150	New, 2 cct, SUTT	28	2025	2025	Committed
3	Pelanggan PT Gorontalo Mineral	Botupingge	150	New, 2 cct, SUTT	64	2027	2027	Plan
4	PLTS+BESS Sulbagut (Kuota) Tersebar 51 MW	GI Eksisting/New Sistem Sulbagut	150	New, 2 cct, SUTT	10*	-	2030	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – South Sulawesi

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Punagaya	Bantaeng switching	150	New, 2 cct, SUTT	132	2025	2025	Procurement
2	Bengo	Soppeng	150	New, 2 cct, SUTT	74	2025	2025	Construction
3	GITETWotu	GITET Bungku	275	New, 2 cct, SUTET	478	2026	2026	Procurement
4	PLTB Sulbagsel (Kuota) Tersebar 60 MW	GI Eksisting/New Sistem Sulbagsel	150	New, 2 cct, SUTT	10*	2026	2026	Procurement
5	Bantaeng Switching	PT Buttatoa Smelter Pratama	150	New, 2 cct, SUTT	2	2027	2027	Plan
6	Malili	PT Huayou Int Mining (Maili)	150	New, 2 cct, SUTT	27	2027	2027	Plan
7	Bantaeng Switching	PT Huadi Dowstone	150	New, 2 cct, SUTT	2	2027	2027	Plan
8	Bantaeng Switching	PT Huadi 6 (Yatai SS)	150	New, 2 cct, SUTT	2	2027	2027	Plan
9	PLTB Sulbagsel (Kuota) Tersebar 70 MW	GI Eksisting/New Sistem Sulbagsel	150	New, 2 cct, SUTT	10*	2027	2027	Plan
10	PLTGU/G/ MG Sulbagsel 400 MW	Bantaeng Switching	150	New, 2 cct, SUTT	10	2027	2027	Plan
11	PLTGU/G/ MG Sulbagsel 2300 MW	GI Eksisting/New Sistem Sulbagsel	150	New, 2 cct, SUTT	10*	2027	2027	Plan
12	Malili	PT Indo Nickel Industri (Citra Lampia)	150	New, 2 cct, SUTT	30	2028	2028	Plan
13	GITET Bakaru 2	GITET Sidrap	275	New, 2 cct, SUTET	130	2028	2028	Committed
14	GITET Daya Baru	GITET Bantaeng Switching	275	New, 2 cct, SUTET	260	2028	2028	Committed
15	GITET Palopo	GITET Bakaru 2	275	New, 2 cct, SUTET	210	2028	2028	Committed

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Southeast Sulawesi

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Pelanggan PT Stargate	Andowia (sisi 150 GITET Andowia)	150	New, 2 cct, SUTT	4	2025	2025	Procurement
2	GITET Andowia	GITET Kendari	275	New, 2 cct, SUTET	258	2026	2026	Procurement
3	GITET Bungku	GITET Andowia	275	New, 2 cct, SUTET	232	2026	2026	Procurement
4	Andowia (sisi 150 GITET Andowia)	Vale Indonesia	150	New, 2 cct, SUTT	31	2027	2027	Plan
5	Kendari (sisi 150 GITET Kendari)	PT Industri Smelter Nusantara (ISN)	150	New, 2 cct, SUTT	60	2027	2027	Plan
6	Inc. 1 Phi (Malili - Lasusua)	PT Kovalen Mining	150	New, 2 cct, SUTT	2	2027	2027	Plan
7	Andowia (sisi 150 GITET Andowia)	PT Nikel Prima Gemilang	150	New, 2 cct, SUTT	25	2027	2027	Plan
8	PLTGU/G/MG Sulbagsel 300 MW	Andowia (sisi 150 GITET Andowia)	150	New, 2 cct, SUTT	10	2027	2027	Plan
9	PLTGU/G/MG Sulbagsel 300 MW	Kolaka Smelter	150	New, 2 cct, SUTT	10	2027	2027	Plan
10	PLTGU/G/MG Kluster PoCi 200 MW	Kolaka Smelter	150	New, 2 cct, SUTT	10	2027	2027	Plan
11	Andolo	Tower Penyebrangan 1A (Sisi Pulau Sulawesi)	150	New, 2 cct, SUTT	146	2028	2028	Plan
12	PLTA Watunohu	Lasusua	150	New, 2 cct, SUTT	80	2028	2028	Committed
13	Tower Penyebrangan 1A (Sisi Pulau Sulawesi)	Tower Penyebrangan 1B (Sisi Pulau Groot Toba)	150	New, 2 cct, SUTT	5	2028	2028	Plan
14	Tower Penyebrangan 1B (Sisi Pulau Groot Toba)	Tower Penyebrangan 2A (Sisi Pulau Groot Toba)	150	New, 2 cct, SUTT	12	2028	2028	Plan
15	Tower Penyebrangan 2A (Sisi Pulau Groot Toba)	Tower Penyebrangan 2B (Sisi Pulau Muna)	150	New, 2 cct, SUTT	13	2028	2028	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Sulawesi

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	Polman	Mamasa	150	New, 2 cct, SUTT	80	2026	2026	Committed
2	PLTA Poko	GITET Bakaru 2	275	New, 2 cct, SUTET	40	2030	2030	Plan
3	GITET Mamuju Baru	GITET Bakaru 2	275	New, 2 cct, SUTET	284	2031	2031	Plan
4	GITET Lariang	GITET Seko	275	New, 2 cct, SUTET	202	2031	2031	Plan
5	PLTA Sulbagsel (Kuota) Tersebar Tambahan II 800 MW	GI/GITET Eksisting/ New Sistem Sulbagsel	150/275	New, 2 cct, SUTT/SUTET	20*	2031	2031	Plan
6	PLTA Sulbagsel (Kuota) Tersebar Tambahan II 600 MW	GI/GITET Eksisting/ New Sistem Sulbagsel	150/275	New, 2 cct, SUTT/SUTET	20*	2032	2032	Plan
7	PLTA Sulbagsel (Kuota) Tersebar Tambahan II 400 MW	GI/GITET Eksisting/ New Sistem Sulbagsel	150/275	New, 2 cct, SUTT/SUTET	20*	2033	2033	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Maluku

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GI Masohi	GI Kairatu	150	New, 2 cct, SUTT	210	2025	2025	Construction
2	GI Piru	GI Kairatu	150	New, 2 cct, SUTT	110	2025	2025	Construction
3	PLTMG Seram 2	GI Masohi	150	New, 2 cct, SUTT	20	2026	2026	Committed
4	GI Mako	Inc.1 phi (Namrole- Namlea)	70	New, 2 cct, SUTT	2	2027	2027	Committed
5	PLTS + BESS Ambon (Kuota) Tersebar 30MW	GI Eksisting/ GI Rencana Sistem Ambon	150	New, 2 cct, SUTT	10*	2027	2027	Plan
6	PLTP Buru (Kuota) Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Buru	70	New, 2 cct, SUTT	20*	2028	2028	Plan
7	GI Piru	GI Taniwel	150	New, 2 cct, SUTT	125	2029	2029	Plan
8	PLTP Seram (Kuota)Tersebar 25 MW	GI Eksisting/ GI Rencana Sistem Seram	150	New, 2 cct, SUTT	20*	2029	2029	Plan
9	PLTP Tulehu (FTP 2)	Inc. 1 Phi (Passo- Ambon)	150	New, 2 cct, SUTT	10	2031	2031	Plan
10	PLTB Ambon (Kuota) Tersebar 30MW	GI Eksisting/ GI Rencana Sistem Ambon	150	New, 2 cct, SUTT	10*	2031	2031	Plan
11	PLTA Wai Tala	Inc. 2 phi (Kairatu- Masohi)	150	New, 4 cct, SUTT	30	2032	2032	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – North Maluku

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GI Jailolo	GI Sofifi	150	New, 2 cct, SUTT	160	2025	2025	Construction
2	GI Jailolo	GI Malifut	150	New, 2 cct, SUTT	160	2025	2025	Construction
3	GI Malifut	GI Tobelo	150	New, 2 cct, SUTT	240	2025	2025	Construction
4	PLTMG Tobelo 2	GI Tobelo	150	New, 2 cct, SUTT	22	2025	2025	Construction
5	GI Ternate 1	GI Tidore	150	New, 2 cct, SUTT	20	2027	2027	Committed
6	GI Ternate 1	GI Tidore	150	New, 2 cct, SKLTT	8	2027	2027	Committed
7	PLTMG Tidore	Incomer 1 phi (GI Ternate -GI Tidore)	150	New, 2 cct, SUTT	20	2027	2027	Plan
8	PLTMG Halmahera 1	Incomer 1 phi (GI Sofifi - GI Jailolo)	150	New, 2 cct, SUTT	10	2027	2027	Plan
9	PLTS+BESS Halmahera (Kuota) Tersebar 100MW	GI Eksisting/ GI Rencana Sistem Halmahera	150	New, 2 cct, SUTT	10*	2028	2028	Plan
10	PLTS+BESS Halmahera (Kuota) Tersebar 50MW	GI Eksisting/ GI Rencana Sistem Halmahera	150	New, 2 cct, SUTT	10*	2029	2029	Plan
11	PLTBio Halmahera (Kuota) Tersebar 30 MW	GI Eksisting/ GI Rencana Sistem Halmahera	150	New, 2 cct, SUTT	10*	2030	2030	Plan
12	GI Maba	GI Sofifi	150	New, 2 cct, SUTT	300	2030	2030	Plan
13	PLTP Halmahera (Kuota) Tersebar 20 MW	GI Sistem Halmahera Eksisting/ GI Rencana	150	New, 2 cct, SUTT	20*	2032	2032	Plan
14	PLTP Halmahera (Kuota) Tersebar 50MW	GI Eksisting/ GI Rencana Sistem Halmahera	150	New, 2 cct, SUTT	20*	2032	2032	Plan
15	Inc. 2 Phi (Sofifi - Maba)	Kawasan Industri Buli (Feni Haltim)	150	New, 4 cct, SUTT	28	2033	2033	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – Papua, Central Papua, Highland Papua, and South Papua

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	PLTS + BESS Timika (Kuota) Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Timika	150	New, 2 cct, SUTT	10*	2028	2028	Plan
2	PLTS + BESS Jayapura (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Jayapura	70/ 150	New, 2 cct, SUTT	10*	2028	2028	Plan
3	PLTS + BESS Jayapura (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Jayapura	70/ 150	New, 2 cct, SUTT	10*	2030	2030	Plan
4	GI Karubaga	GI Mulia	150	New, 2 cct, SUTT	120	2030	2030	Plan
5	GI Mulia	GI Ilaga	150	New, 2 cct, SUTT	80	2030	2030	Plan
6	GI Wamena	GI Elelim	150	New, 2 cct, SUTT	122	2030	2030	Plan
7	GI Wamena	GI Karubaga	150	New, 2 cct, SUTT	140	2030	2030	Plan
8	PLTA Baliem	GI Wamena	150	New, 2 cct, SUTT	50	2030	2030	Plan
9	PLTA Baliem	GI Sumohai	150	New, 2 cct, SUTT	50	2030	2030	Plan
10	GI Jayapura (Skyland)	GI Angkasa	150	New, 2 cct, SUTT	20	2031	2031	Plan
11	PLTU Holtekamp	GI Angkasa	150	New, 2 cct, SUTT/SKTT/SKL TT	60	2031	2031	Plan
12	GI Angkasa	GI Sentani Baru	150	New, 2 cct, SUTT	72	2033	2033	Plan
13	PLTU Holtekamp	GI Keerom	150	New, 2 cct, SUTT	40	2033	2033	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Papua and Southwest Papua

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	PLTMG Manokwari	GI Manokwari	150	New, 2 cct, SUTT	24	2025	2025	Construction
2	PLTMG Manokwari	GI Prafi	150	New, 2 cct, SUTT	80	2026	2026	Committed
3	PLTS + BESS Sorong (Kuota) Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Sorong	150	New, 2 cct, SUTT	10*	2028	2028	Plan
4	PLTMG Manokwari	GI Ransiki	150	New, 2 cct, SUTT	150	2029	2029	Plan
5	PLTS + BESS Sorong (Kuota) Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Sorong	150	New, 2 cct, SUTT	10*	2030	2030	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – West Nusa Tenggara

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	GI Jeranjang	GI Sekotong	150	New, 2 cct, SUTT	57	2025	2025	Construction
2	GI Mataram	GI Mantang	150	New, 2 cct, SUTT	40	2025	2025	Committed
3	PLTMG Sumbawa 4	Incomer 2 phi (Labuhan -Empang)	150	New, 4 cct, SUTT	12	2027	2027	Plan
4	PLTB Lombok (Kuota) Tersebar 30 MW	GI Eksisting/ GI Rencana Sistem Lombok	150	New, 2 cct, SUTT	10*	2027	2027	Plan
5	PLTS + BESS Sumbawa- Bima (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Sumbawa- Bima	70/ 150	New, 2 cct, SUTT	10*	2027	2027	Plan
6	PLTB Lombok (Kuota) Tersebar 30 MW	GI Eksisting/ GI Rencana Sistem Lombok	150	New, 2 cct, SUTT	10*	2028	2028	Plan
7	PLTS + BESS Lombok (Kuota) Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Lombok	150	New, 2 cct, SUTT	10*	2028	2028	Plan
8	PLTS + BESS Bima (Kuota) Tersebar 50 MW Sumbawa	GI Eksisting/ GI Rencana Sistem Sumbawa- Bima	70/ 150	New, 2 cct, SUTT	10*	2029	2029	Plan
9	PLTS + BESS Lombok (Kuota) Tersebar 30 MW	GI Eksisting/ GI Rencana Sistem Lombok	150	New, 2 cct, SUTT	10*	2030	2030	Plan
10	PLTS + BESS Sumbawa- Bima (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Sumbawa- Bima	70/ 150	New, 2 cct, SUTT	10*	2031	2031	Plan
11	PLTS + BESS Lombok (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Lombok	150	New, 2 cct, SUTT	10*	2033	2033	Plan
12	GI Maluku	GI Taliwang	70	New, 2 cct, SUTT	40	2033	2033	Plan
13	PLTS + BESS Sumbawa- Bima (Kuota) Tersebar 50 MW	GI Eksisting/ GI Rencana Sistem Sumbawa- Bima	70/ 150	New, 2 cct, SUTT	10*	2034	2034	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

## 計画中の送電線プロジェクトの一覧 – East Nusa Tenggara

NON-EXHAUSTIVE

No.	From	To	Voltage (kV)	Conductor	Length (kms)	COD RE Base <sup>1</sup>	COD ARED <sup>2</sup>	Status
1	PLTMG Kupang Peaker / Panaf	GI Naibonat	150	New, 2 cct, SUTT	50	2025	2025	Construction
2	GI Waingapu	Shrimp Farming	70	New, 2 cct, SUTT	56	2026	2026	Committed
3	GI Waingapu	PLTMG Waingapu	70	New, 2 cct, SUTT	51.8	2026	2026	Committed
4	GI Amfoang	GI Kefamenanu	150	New, 2 cct, SUTT	252	2027	2027	Committed
5	GI Kefamenanu	GI Malaka	150	New, 2 cct, SUTT	100	2027	2027	Committed
6	GI Kupang /Maulafa Baru	GI Naibonat	150	New, 2 cct, SUTT	20	2027	2027	Committed
7	GI Malaka	GI Atambua	150	New, 2 cct, SUTT	96	2027	2027	Committed
8	GI Naibonat	GI Amfoang	150	New, 2 cct, SUTT	108	2027	2027	Committed
9	PLTB Timor (Kuota) Tersebar 22 MW	GI Eksisting/GI Rencana Sistem Timor	70/150	New, 2 cct, SUTT	10*	2027	2027	Plan
10	PLTS + BESS Flores (Kuota)Tersebar 20 MW	GI Eksisting/ GI Rencana Sistem Flores	70/150	New, 2 cct, SUTT	10*	2027	2027	Plan
11	PLTMG Maumere	GI Larantuka	150	New, 2 cct, SUTT	212	2028	2028	Plan
12	PLTMG Waingapu	GI Tambolaka	70	New, 2 cct, SUTT	190	2028	2028	Plan
13	GI Waikabubak	GI Tambolaka	70	New, 2 cct, SUTT	50	2028	2028	Plan
14	PLTA Flores (Kuota) Tersebar 16 MW	GI Eksisting/ GI Rencana Sistem Flores	70/150	New, 2 cct, SUTT	20*	2029	2029	Plan
15	PLTP Ulumbu	PLTP Ulumbu 5,6	70	New, 2 cct, SUTT	20	2030	2030	Plan

\*: The transmission length is still an estimate pending confirmation of the final location

[Complete list of transmission line project in Indonesia \(Link\)](#)

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10. 電力需給状況

インドネシアの電気料金は2009年法第30号に基づき政府が決定し、家計・事業・産業など利用者区分や地域ごとに差別化され、不足分は政府補助金で補填されている



## Regulation on Electricity Prices

### Regulation on Electricity Prices

- **As stipulated in Law No. 30 / 2009**, the government of Indonesia determines prices for electricity, which are given final approval by Parliament.
- **Any differences between the cost of producing and transporting electricity and the price paid by consumers is subsidised by the government.** Electricity subsidies continue to be a burden on the government and hinder efforts to improve energy efficiency and demand-side response mechanisms.
- **Differentiated pricing is applied based on customer type and geographical region to support PLN's recovery cost for low-cost areas**

### Pricing Differentiation Mechanism (as regulated by Law)

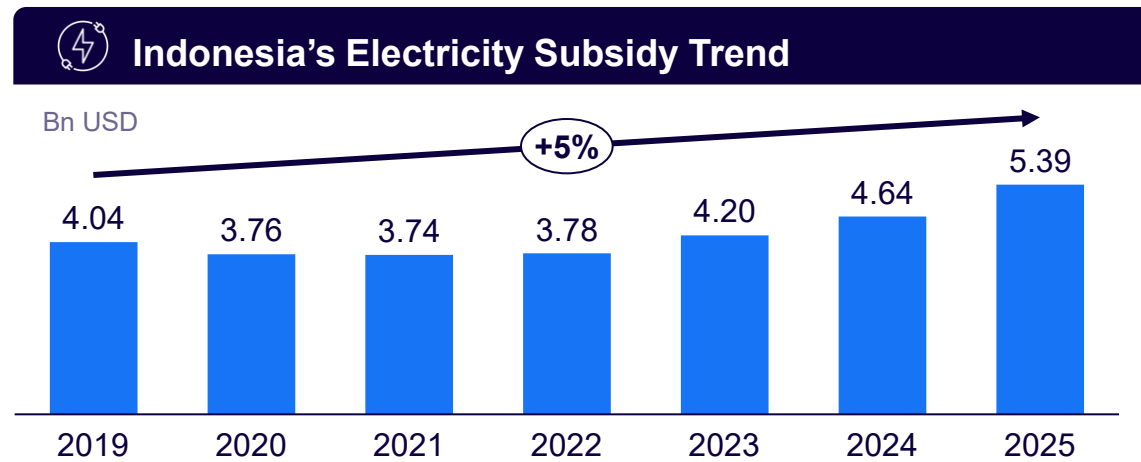
- **Household consumer (R1-R3) – IDR 1,444-1,700/kWh**
  - R1 – small household (1,300-2,200 VA)
  - R2 – medium household (3,500-5,500 VA)
  - R3 – large household (>6,600 VA)
- **Business consumer (B1-B3) – IDR 1,343-1,700/kWh**
  - B1 – small enterprise (450-900 VA)
  - B2 – medium enterprise ( 6.600 VA-200 kVA)
  - B3 – large enterprise (> 200 kVA)
- **Industry consumer (I2-I3) – IDR 1,115-1,700/kWh**
  - I1 – small industry (4500 VA - 14 kVA)
  - I2 – medium industry (14 kVA – 200 kVA)
  - I3 – large industry (>200 kVA)
  - I4 – major industry (30.000 Kva)
- **Other consumers: social use (P1/P2) and street lighting (T1/T2) – IDR 415-1,444/kWh**



Price are further adjusted based on Baseline Tariff Zone (Zone I-III)

# インドネシアの電力補助金はCOVID-19で一時減少したが、その後回復し2025年には53.9億ドルに達し、政府はR1-R2家庭向け50%割引などで購買力維持を図っている

## Electricity Spending Subsidies



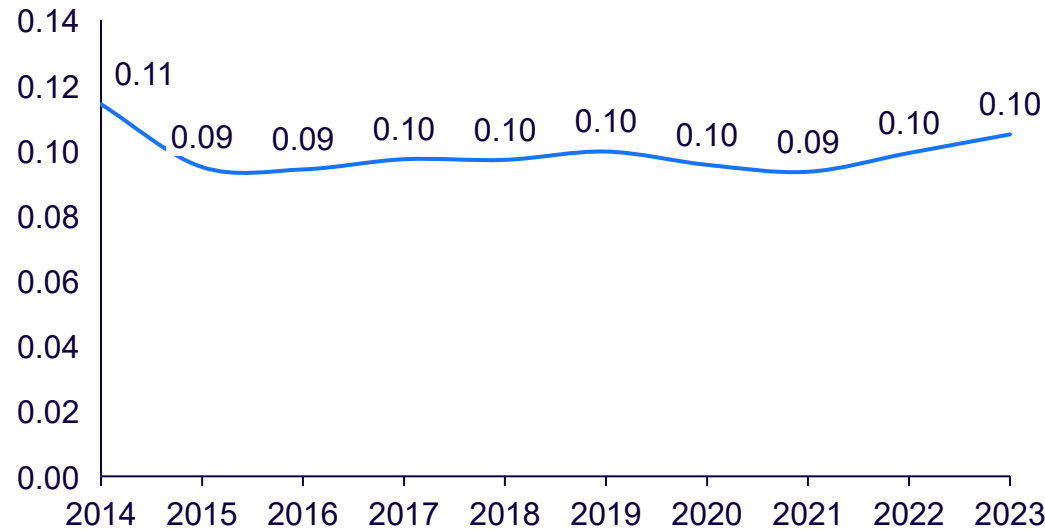
- In 2020-2021, subsidies declined significantly by ~10% due to ICP collapse and decreased electricity demand (~6%) due to COVID-19, resulting to less subsidy requirements and lower fuel expenses
- By 2022, subsidy slowly recovers and reached its peak in 2025 as gov. tried to maintain people's purchasing power amid slow economic growth

- To sustain purchasing power, the government introduced a 50% electricity tariff discount for R1-R2 household customers (450-2,200 VA) during January-February 2025.
- From June 2025 onward, a new discount program offers the same 50% tariff reduction exclusively to households with up to 1,300 VA
- This has resulted to State subsidies exceeding the budget, projected to increase by approximately 20% above the initial 2025 allocation

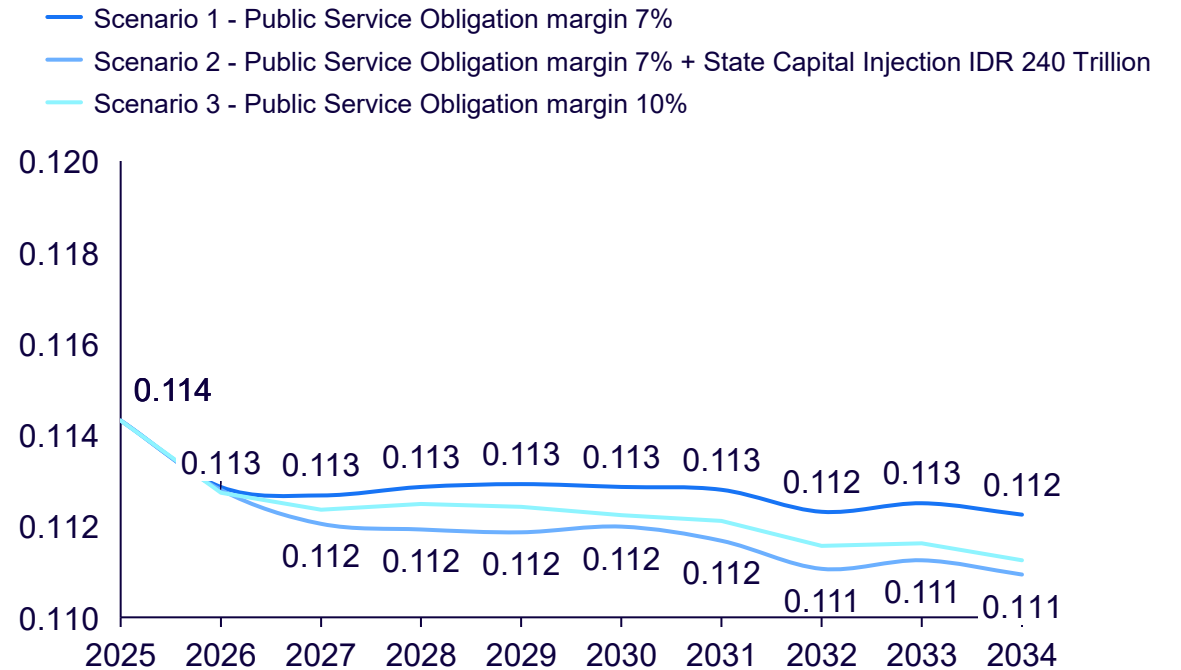
# インドネシアの電力コストは2014～2023年は0.09～0.11 USD/kWhで安定して推移し、2025～2034年も0.111～0.114 USD/kWh程度で横ばいが見込まれている

**Electricity cost<sup>1</sup>**  
2014 – 2034, USD/kWh

2014 – 2023, USD/kWh<sup>1</sup>







2025 – 2034, USD/kWh<sup>2</sup>



Note: 1) Values are converted to USD based on the average exchange rate of the respective year; 2) Values are converted to USD using an exchange rate of IDR/USD 16,000 for 2025 and IDR/USD 16,100 for 2026–2034, in line with assumptions from RUPTL 2025–2034  
Source: Statista, RUPTL 2025-2034, Arthur D. Little analysis

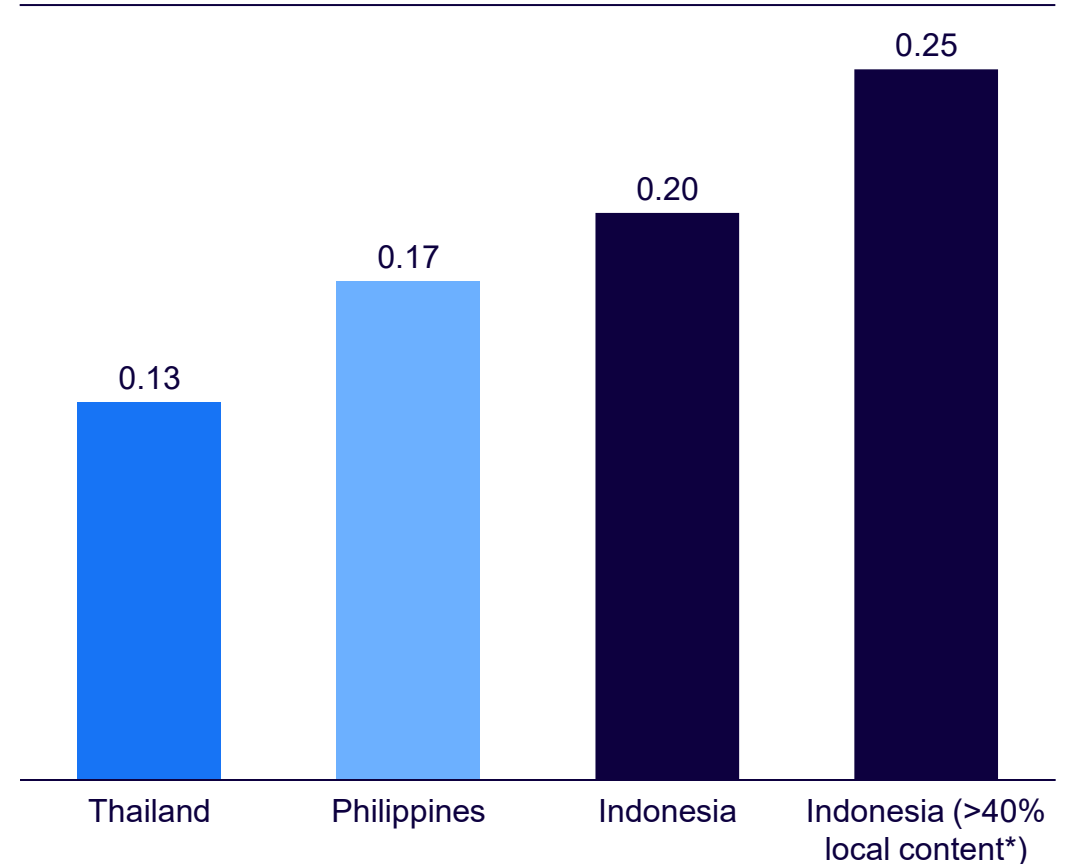
インドネシアの太陽光FIT価格は0.20~0.25 USD/kWhと、タイやフィリピンより高く、競争入札とローカルコンテンツ要件（40%以上）によって上限が設定されている

### FiT (Feed-in-Tariff)

Sector	Key developments
<b>Solar</b> 	Replaced previous solar FiT with a ceiling price formula capped at 85% of local costs plus competitive bidding, reducing price to USD 0.058-0.07 / kWh
<b>Geothermal</b> 	Currently operating in a 'ceiling price' manner. Indonesia's geothermal association INAGA is proposing a FiT scheme which would increase geothermal PP development, currently hampered by tariffs set by PLN on a b2b basis. This is said to be addressed in the EB-ET Bill under purview as of 2022
<b>Wind</b> 	No FiT currently in place. Large wind projects are unlikely due to wind speeds limitations. Currently 2 wind PPs are operating in Sulawesi, with 1 more under construction whilst Kalimantan has 1 under construction, both with start up date in 2023.
<b>Biomass</b> 	FiTs only application to biomass plants with an installed capacity of 10 MW or less in size.

### Solar FiT rates across SEA markets

2022, USD/kWh



Note: \*Local content requirement is a policy that incentivizes local manufacturing, in this cause additional tariffs of USD 0.05 can be applied if the min. share of locally produced inputs in the solar projects is >40%

Sources: International Energy Agency 2023, Statista 2023, Rystad Energy 2023, PV Magazine 2022, Multiple secondary research, International Institute for Sustainable Development 2017

インドネシアでは地熱発電に対して地域別の上限買取価格が設定されており、2025年時点でRegion Iは15.9¢/kWh、Region IIは23.3¢/kWh、Region IIIは29.6¢/kWhとなっている

### Geothermal ceiling rates

2015 – 2025, USD¢/kWh

COD	Ceiling Price (USD¢/kWh)		
	Region I	Region II	Region III
2015	11.8	17.0	25.4
2016	12.2	17.6	25.8
2017	12.6	18.2	26.2
2018	13.0	18.8	26.6
2019	13.4	19.4	27.0
2020	13.8	20.0	27.4
2021	14.2	20.6	27.8
2022	14.6	21.3	28.3
2023	15.0	21.9	28.7
2024	15.5	22.6	29.2
2025	15.9	23.3	29.6

Note:

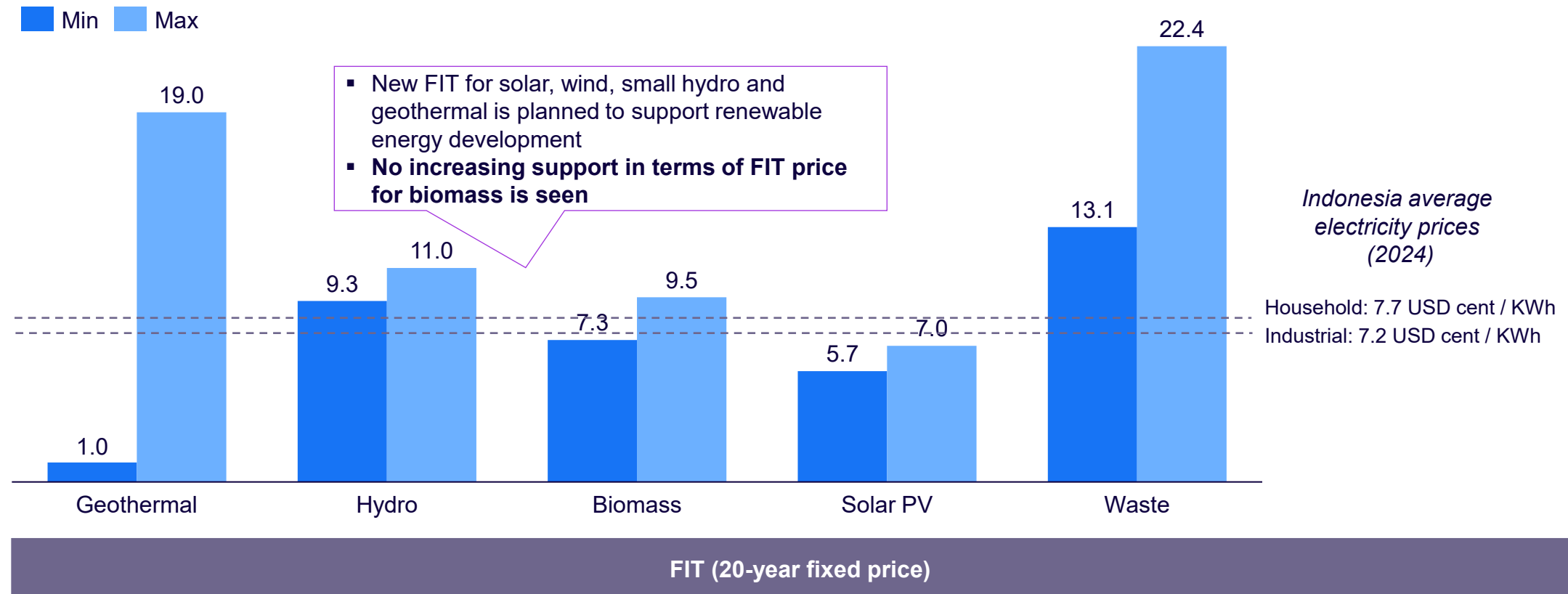
**Region I:** Sumatra, Jawa & Bali

**Region II:** Sulawesi, NTT, NTB, Halmahera, Maluku, Irian Jaya & Kalimantan

**Region III:** Remote areas within Region I and Region II where the majority of the electrical power is generated from fuel-oil plants

インドネシアの再エネFITは地熱1.0～19.0¢、水力9.3～11.0¢、バイオマス7.3～9.5¢、太陽光5.7～7.0¢、廃棄物13.1～22.4¢/kWhで、特にバイオマスは他と比べ低く抑えられている

Renewable energy purchasing price by power sources in Indonesia (US cent/kWh)

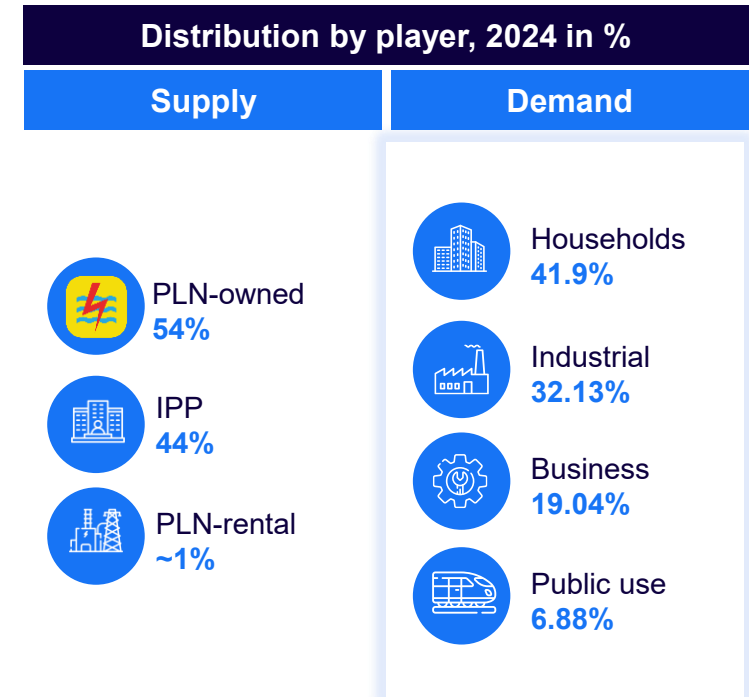
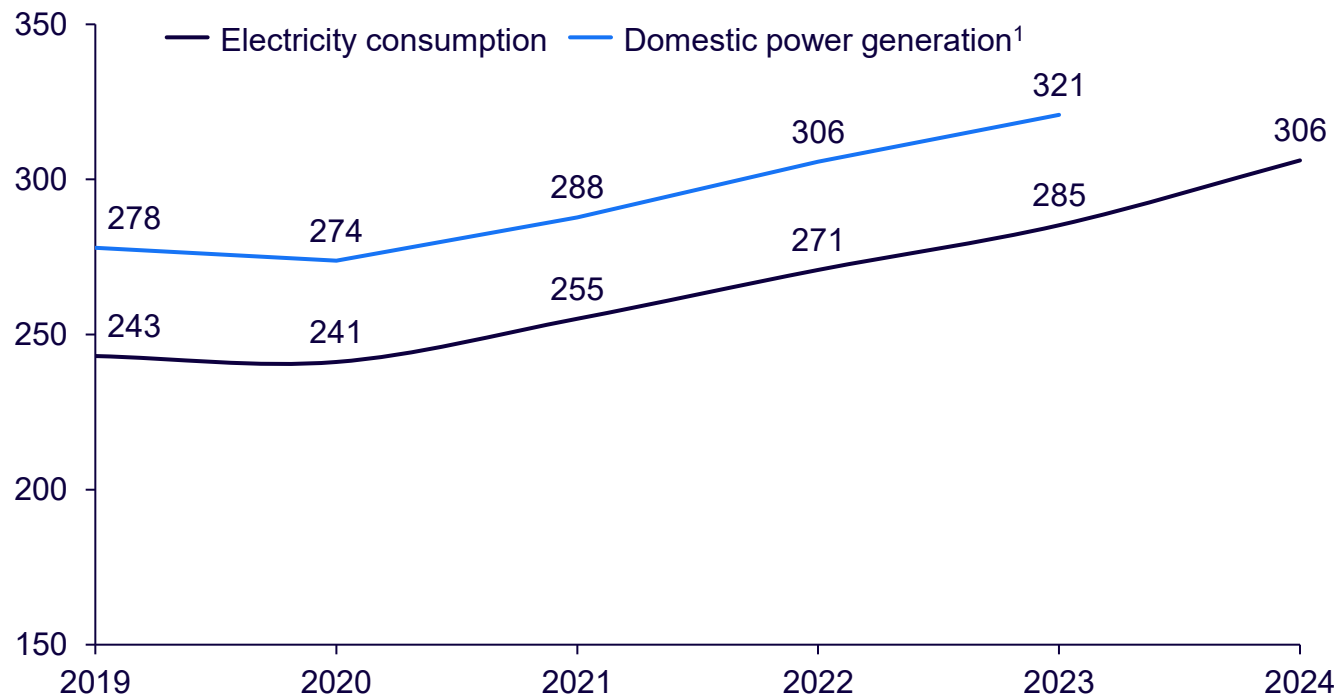


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# インドネシアの電力供給はPLNが54%を占め、需要予測の過大評価と大規模電源の追加により供給過剰が生じている

Overview of electricity supply and demand



According to MEMR, Indonesia's electricity surplus stems from the ongoing 35 GW project continuously adding new power plants beyond actual demand, compounded by overly optimistic demand growth forecasts

Note: 1) Full year power generation actual data for 2024 is not available  
 Source: RUPTL 2025—2034, MEMR 2022 and 2023 Statement, Secondary research, Arthur D. Little analysis

**ARTHUR  LITTLE**

**THE DIFFERENCE**