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FUNDING CLIMATE CRISIS:
HOW INDONESIAN BANKS BACK COAL

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EXECUTIVE SUMMARY

Global climate scientists and experts agree that to avoid the worst impacts of the climate crisis the world must phase out coal. Given coal's role in driving deadly pollution globally and exacerbating the climate crisis, the International Energy Agency emphasizes that reducing coal emission must be a first-order priority. All pathways under IEA involve significant reduction of coal emission.

Indonesia, as the second largest coal exporter in 2024, and in which more than 60% of its electricity relies on coal source, has a colossal task of transforming its economy away from fossil fuel. One that cannot be achieved without the role of investors.

While Indonesia has introduced net zero by 2060 and measures to restrict new coal buildout in the past 5 years, the latest national electricity plan (RUPTL 2025-2034) plans to add 6.3 GW capacity of coal plants until 2034. Further, the addition of up to 11 GW of new "captive" coal plants - power plants attached to industrial facilities - by 2026 have been identified to be a major threat to Indonesia's climate progress.

Signs of weakening coal international demand from China and India are on the horizon. Q1-2025 was record low coal import demand. Global coal demand could plateau by 2027, and China is expected to peak its coal consumption by 2027. China's demand is expected to decline by 100 million tonnes, posing a threat for major coal mine companies in Indonesia. Rising coal supply and weaker demand is driving coal prices down. The World Bank projects that coal prices could fall by 27% in 2025, and a further 5% in 2026.

After international banks significantly weaned off its portfolio from coal, major Indonesian domestic banks stepped in and will likely continue to do so. **In 2021-2025, five of Indonesian domestic banks - namely Mandiri, BRI, BNI, BCA, and Permata - provided US$ 5.6 billion of loans to Indonesia's largest coal companies.** Since 2023, only Indonesian domestic banks have signed new loans to coal.

Indonesian banks cannot pose as 'ESG' leaders as long as it is enabling the burning of coal, a sector that is single-handedly responsible for 10,500 deaths in 2022 alone. This report examines the contribution of Indonesian banks in exacerbating the climate crisis, and the actions they must take for Indonesia to have a chance of minimizing climate disasters.

KEY FINDINGS

State of Coal

- **According to the latest RUPTL, Indonesia plans to add 6.3 GW of new coal fired power plants in 2025-2034** (with a split of 629 MW owned by PLN, and 5.7 GW by the private sector).
- Indonesian coal production has hit a record high in 2024 at 836 Million tonnes (Mt). 2025 coal production target is 775 Mt.
- **Indonesia coal imports have hit a record low in Q1-2025**, largely driven by sluggish demand from China and India. It may continue as China and India are slashing coal imports.
- **Coal price is expected to decrease throughout 2025**, according to the World Bank, and could continue until 2026.
- The Indonesian government is pushing for coal downstreaming projects, however to date none have taken off due to a weak economic case. The government introduced financial incentives, and has included all downstreaming as a priority sector in Danantara.

Coal Loans

- 5 Indonesian domestic banks (Mandiri, BRI, BNI, BCA, and Permata) have provided US$5.6 billion to Indonesia's 7 largest coal companies in 2021-2024.
- Despite the banks' introduction of ESG policies in the past two years, no Indonesian major Indonesian banks restrict coal financing.
- Since 2021, only Indonesian banks have signed coal loan deals.

METHODOLOGY

Loans and Financial Data

Data is compiled and taken from publicly available information such as Company's annual and financial report, Indonesian Stock Exchange (IDX) and news articles. Some loan data was acquired from Bloomberg Terminal.

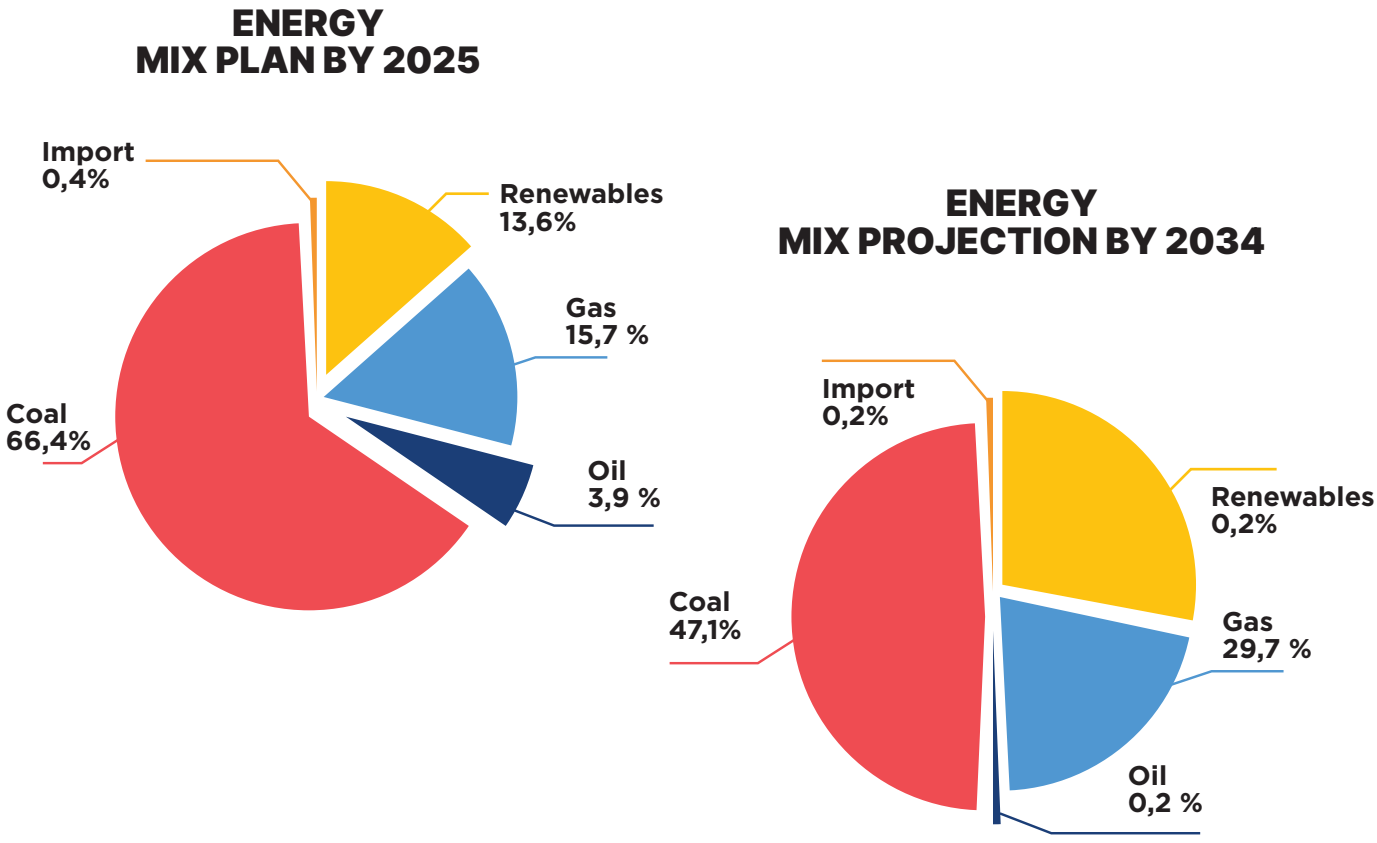
Coal mine companies that are assessed in this report are the 10 largest in Indonesia according to production volume in 2024 or the latest available public data.

INDONESIA ENERGY SECTOR

ENERGY MIX

Fossil fuel dominates Indonesia's electricity energy mix and will continue at least until 2043. Overall, fossil fuel represented 86% of the energy mix in 2024, with coal at 66.8% and renewable energy only 14%. Renewable energy is only projected to take over fossil fuel share in 2044, which would reach 51.6%. In the latest Electricity Supply Business Plan (RUPTL), the proportion of coal in the energy mix would shrink by less than 20% between 2025-2034. Fossil fuel continues to dominate.

Chart I: RUPTL 2024-2034 Electricity Energy Mix projection 2025-2034[1]

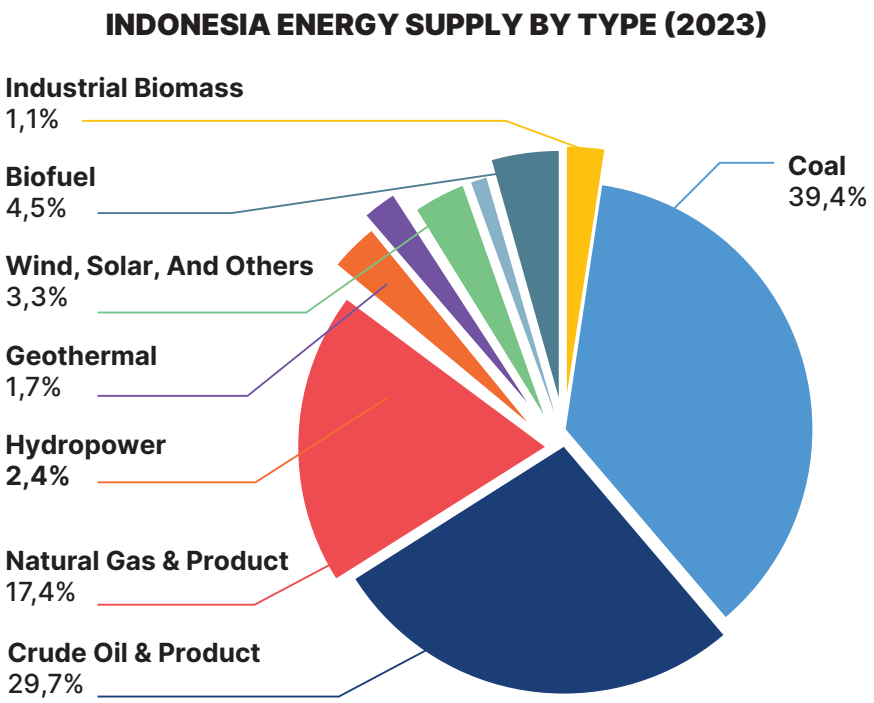


Indonesia relies heavily on fossil fuel to meet its energy needs. In 2023, 86% of Indonesia's primary energy supply was met by fossil fuel. Coal, oil, and gas have historically been Indonesia's primary energy sources[2] and will likely continue unless renewable energy capacity is rapidly deployed.

[1] RUPTL 2025-2034, hlm. 226 PDF.

[2] View Handbook of Energy and Economic Statistics 2023, Ministry of Energy and Mineral Resources for primary energy supply in the past 10 years (p. 20-21)

Chart II: Indonesia primary energy supply in 2023[3]



The industry sector consumption experienced significant growth; in 2022 the industry sector surpassed the transportation sector consumption (see Table I). This growth is likely linked to the government downstreaming policies and rapid industrial parks and smelter construction. In 2023, the industry sector consumes the most energy, followed by transportation and household sectors (see Figure I).

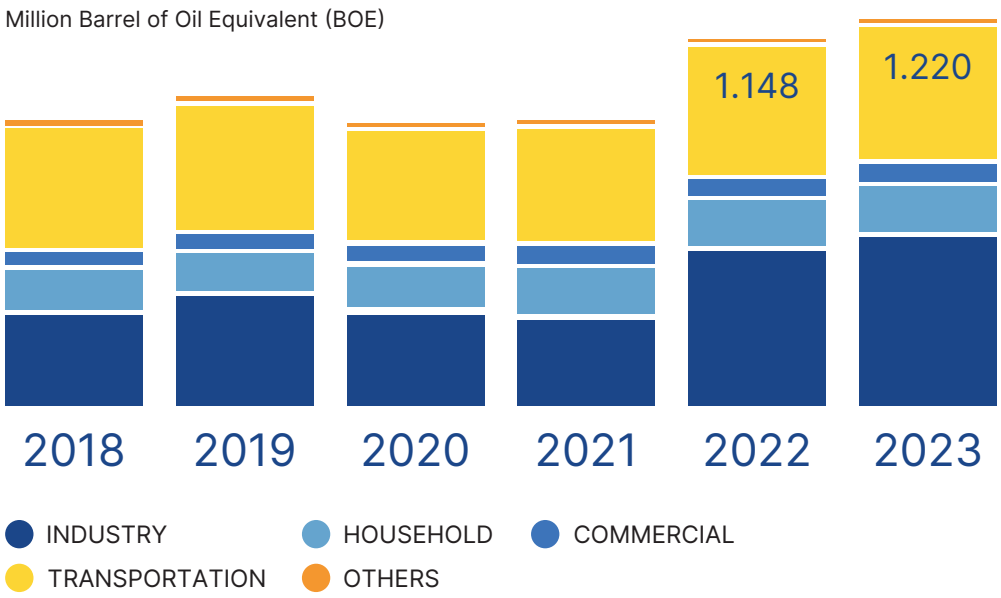
Table I: Industry vs Transportation energy consumption 2021-2023[4]

Year	Industry (%)	Transportation (%)
2021	32.92	44.59
2022	44.56	37.67
2023	45.60	36.74

Share of final energy consumption by sector:
Industry (45.6%)
Transportation (35.74%)
Household (12.35%)
Commercial (4.44%)
Other sectors (0.87%)

[3] Handbook of Energy and Economic Statistics 2023, Ministry of Energy and Mineral Resources (hlm. 26)
[4] Handbook of Energy and Economic Statistics 2023, Ministry of Energy and Mineral Resources (hlm. 26)

Figure I: 2023 final energy consumption by sector [5]



Indonesian electricity is projected to grow on average 3.4% annually, with the industry sector accounting the largest electricity needs projection by 2060 (Table II). This could threaten Indonesia's climate goal especially because of how reliant the industry sector is on fossil fuel. **In the past 2-3 years, consumption of energy from the industrial sector is met largely by coal and natural gas.** The share of coal in the industrial sector was 56.90%, followed by gas at 21.41% and on-grid electricity at 12.7%.

Table II: Electricity needs according to consumer types[6]

Year	Energy needs (TWh)	
	2025	2060
Household	158	502
Industry	284	774
Business	70	245
public	26	94
EVs	0.5	198

[5] Chart taken from the Handbook of Energy and Economic Statistics 2023, Ministry of Energy and Mineral Resources (p. X)
[6] RUKN (hlm. 129)

INDONESIA ENERGY TRANSITION

Net Zero Pathways

Indonesia's Net Zero pathways still rely on fossil fuel expansion. If captive, new coal power plants are not prohibited, and gas power plants will be maintained. The pathways also adopt policies that will extend and maintain coal and gas power operations, such as co-firing.

Indonesia's pathways to achieve Net Zero according to **National Electricity Master Plan (RUKN) 2025**

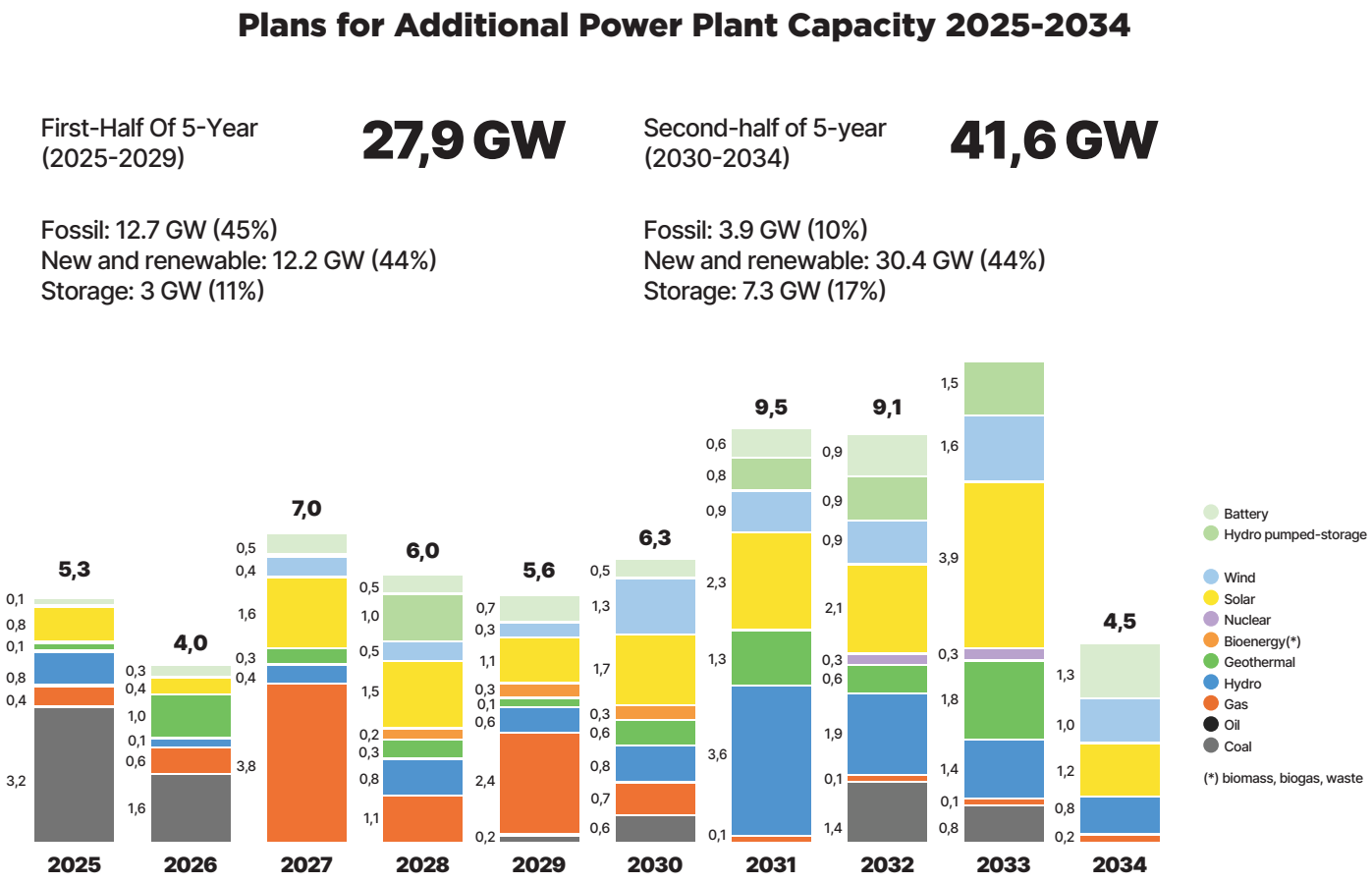
1. Coal fired power plant (CFPP) emission restriction
    a. Restrict new coal fired power plants unless:
        i) Integrated with industrial facilities and contribute to job creation
        ii) Commit to reducing emission by 35% in 10 years compared to 2021 baseline, through carbon offset or blending fuel (co-firing)
        iii) To be retired in 2050
    b. Fuel switching and CFPP retrofitting, by switching coal to biomass or ammonia (co-firing)
2. Gas power plant will be reduced through fuel-switching or retrofitting
3. Remove diesel power plant entirely by 2033
4. Expansion of geothermal power plant
5. Expansion of hydroelectric power plant
6. Expansion of bioenergy power plant; incineration and landfill gas
7. Expansion of solar power plant
8. Expansion of wind energy; offshore and onshore
9. Expansion of ocean power plant
10. Introduce nuclear power plant
11. Development of energy storage

Coal Phaseout

Indonesia plans to phase out coal entirely by 2050, or by 2040 with international finance support. The **Presidential Regulation 112/2022** stipulates that no new coal-fired power plants can be added unless it is included in the latest RUPTL and that the plants operate until 2050 at the latest or linked to industrial facilities. Even though MEMR has indicated it identified **13 CFPPs**, with a total capacity of 4.3 GW, to be retired early, it has not identified retirement date nor the list is included in the **latest RUPTL.** The retirement of PLTU Cirebon-1 began last year, but has been experiencing **financial** barriers. According to the Ministry of Finance, the power plant retirement in 2032 would require **US$1.3 billion**.

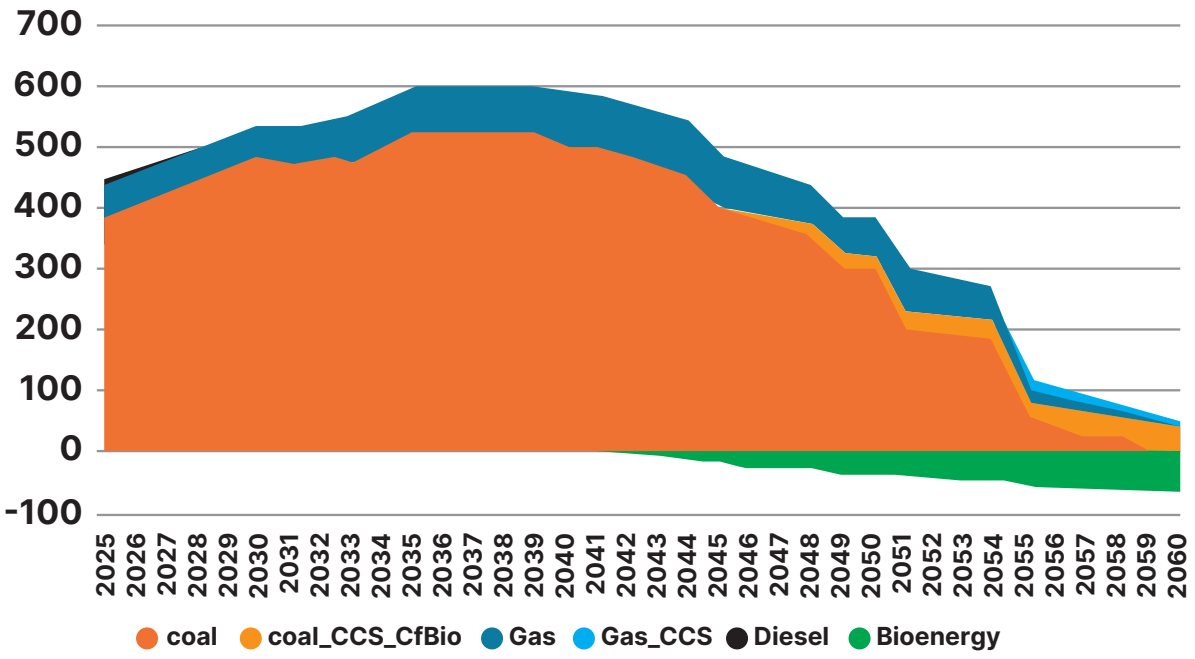
However, despite the new coal phaseout policy, Indonesia plans to add new coal-fired power plants until 2034. According to RUPTL 2025-2034, Indonesia plans to install an additional **6.3 GW** *of new* CFPPs in 2025-2034 (Figure II). According to numerous studies, up to 11 GW of new captive coal plants by 2026. Captive CFPPs is excluded in the Presidential Regulation 112/2022, thus has no regulation or requirements for phase-down.

Figure II: MEMR plans for new installed power plant capacity 2025-2034 [7]



The government projects that electricity from coal will continue to increase until 2035. This is largely to accommodate energy needs from captive power plants in the industrial sector for downstreaming. Subsequently, Indonesia electricity peak CO2 emission is expected to occur in 2037.

Figure III: Projection of CO2 emission in energy sector [8]



[7] Chart is translated and retrieved from MEMR RUPTL 2025-2034 presentation (26 May 2025)
[8] Chart is taken directly from RUKN 2025 (p. 136)

Coal Outlook

Global Coal Outlook

Coal emission increase in 2024 is driven by consumption in China, India, and Southeast Asia. The two countries and regions are estimated to represent three-quarters of total demand in 2024. Southeast Asia became the third-largest coal consuming region in the world in 2023, in which the rise of consumption was driven by Indonesia by its metallurgical industries (nickel), and the Philippines, and Vietnam (power generation).

Three countries - China (34%), India (12%) and Indonesia (13%) - account for 70% of global coal production in 2023 and previous years. Indonesia is the third largest coal producer in the world, and on average exports nearly 70% of its coal production.

State of Indonesian Coal

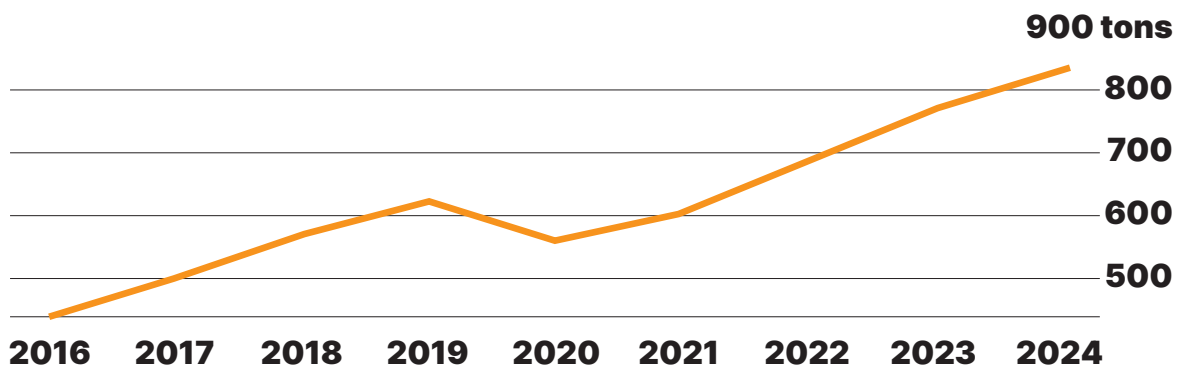
In 2024 coal production stood at 836 Mt, exceeding its 2024 target of 710 Mt. The figure is a record high compared to previous years (Figure IV below). In spite of global coal production nearing its peak, Indonesia does not show any signs of reducing its coal production, and domestically coal will remain relevant as Indonesia's peak coal emission is expected to occur in 2037. Indonesia coal reserve stands at 31.9 billion tonnes, and is expected to last for 50-60 years. [9]

The government has set a 2025 coal production target at 775 Mt. Actual production will likely be higher (view Figure IV) as historically Indonesia has exceeded its coal production target. If Indonesia does not manage its coal production, it has a potential to cause global coal oversupply, and would weaken coal prices further.

Indonesian coal reserves is dominated by coal with low calorific value; 75.28% of low-grade coal, 14.2% medium grade, and 10.5% high grade coal.

[9] According to the latest estimate in 2024.

Figure IV: Indonesia hit record coal production in 2024[10]



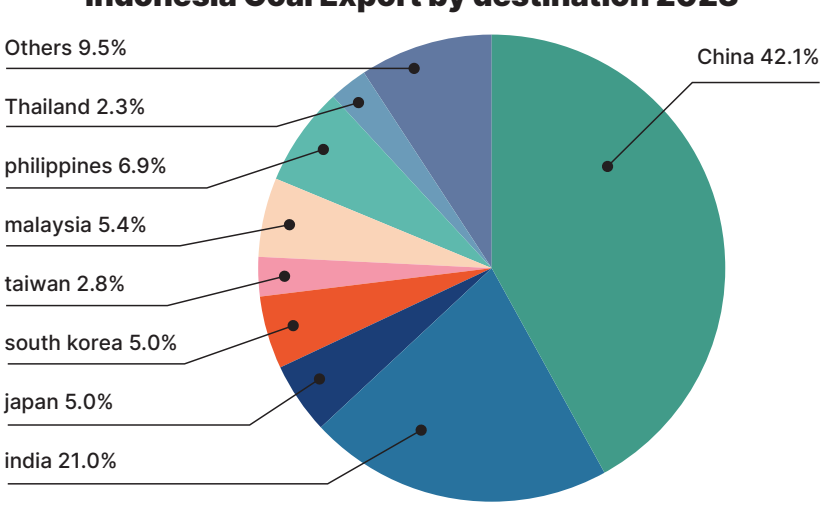
Source: Indonesia's Ministry of Energy and Mineral Resources

Markets

Indonesian coal market outlook in 2025 is bleak, and coal price is expected to continue declining until the end of 2025. Indonesia exports 70-80% of its coal production largely to China and India. The two countries represent 63% of Indonesia's coal export markets (view Chart III).

Q1-2025 saw a record low coal import demand, largely caused by weakening by China and India; both countries are slashing coal imports and shifting to higher-grade coal, shrinking Indonesia's two largest coal markets significantly. Global coal demand is projected to plateau by 2027, while China is expected to peak its coal consumption by 2027. Indonesia exported 218 Mt of coal to China in 2023, and the country's import demand is expected to decline by 100 million tonnes, posing a major threat to Indonesia's coal miners.

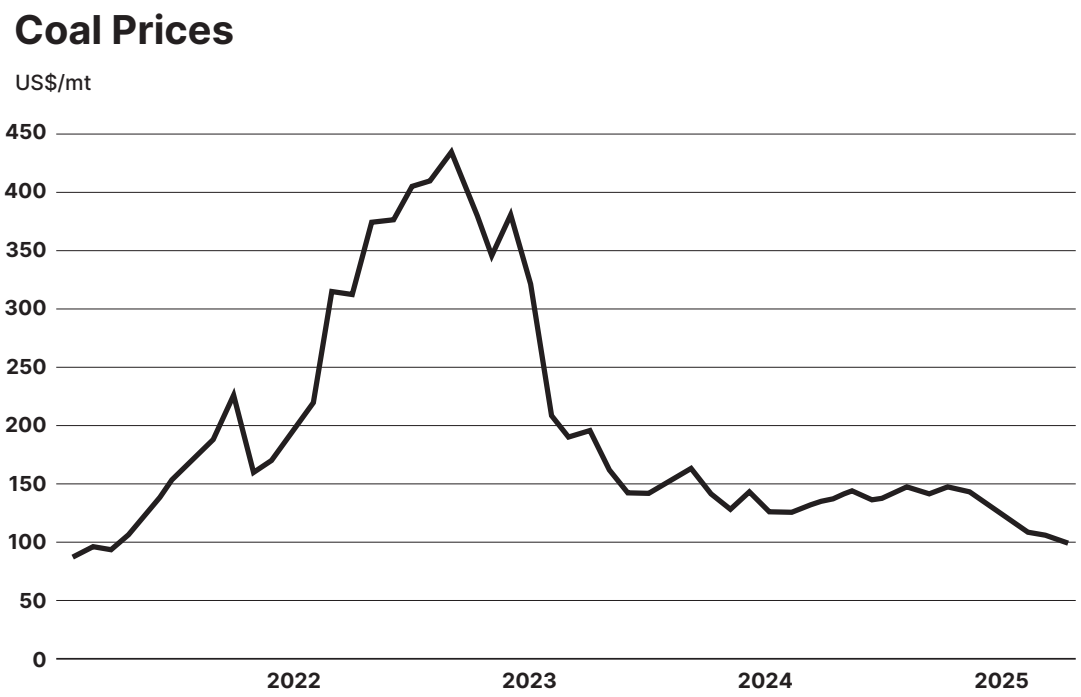
Chart III: Indonesia Coal Export Destinations 2023[11]



[10] Figure is taken directly from Bloomberg (January 2025)

[11] Handbook of Energy and Economic Statistics 2023, Ministry of Energy and Mineral Resources

Figure V: Coal prices fluctuation (World Bank)



Note: Monthly data of australian coal prices. Last observation is april 2025.
Source: Bloomberg; World Bank.

Coal prices are expected to decline in 2025, and further in 2026. Sluggish demand has implications on coal prices; rising coal supply and weaker demand are driving coal prices down. The World Bank projects that coal prices would fall by 27% in 2025, and a further 5% in 2026. The Director Indonesia Mining Association and the Chairman of Indonesia Energy & Mining Forum projected coal price would continue to decline until the end of 2025. Currently, there are "no fundamental factors that would increase coal coal prices sharply."

Coal price decline gives an edge to higher-grade coal. Indonesian coal loses, while countries like South Africa and Mongolia are benefitting from China and India's shift to higher-grade coal.

Given the sluggish global coal demand, Indonesia is turning to its domestic coal demand to absorb its coal production, largely to meet demand from nickel smelters. Domestic consumption share from Indonesia's coal supply is poised to hit a record share at 48.6%, according to MEMR data reviewed by Reuters.

Overseas Markets

Snapshot: China coal consumption and policies

According to Li Xuegang, an analyst at the China Coal Transportation and Distribution Association, the government's "tighter emission controls will slash demand for low-heating and poor-quality grades," which China imported from Indonesia. China is reducing its import for low-grade coal, which make up the majority grade of Indonesian coal.

China plans to peak its coal consumption in 2025 and has announced net-zero 2060. In 2021, China announced a net zero target by 2060, and planned to stop coal overseas financing. Achieving the net zero target would require China to peak its carbon emission by 2030 and this will have implications on the Indonesian coal export market. Over 62% of China's coal imports come from Indonesia. A study by Australian National University (ANU) in 2022 estimated that China coal imports will shrink by 49% in 2025.

China's no new overseas coal financing has a significant impact on overseas coal, but loopholes remain. To date, China is the world's largest overseas coal financier. In 2000-2020, China Export Import Bank and China Development Bank were responsible for 87% of the total amount loaned for overseas coal-fired generation. China's no new coal financing policy has a significant impact on overseas coal, including in Indonesia. 19.2 GW (18 plants) of planned projects fall into a grey area of China's pledge and around 8 GW captive coal projects located in industrial parks in Indonesia successfully reached financial closing and are moving ahead in 2022. In May 2023, Halmahera Persada Lygend (HPL) successfully obtained a syndicated loan of US$780 million for Phase III of the HPAL project. Phase III refers to the 4 × 380 MW coal plant. As of 2024, the construction was 77% complete. Most of these captive coal plants are off-grid, therefore aren't recorded in the public document and have been overlooked due to the little transparency of the projects.

China investment is still heavily linked to Indonesia's industrial parks and captive coal. Majority of tenants in Indonesia's industrial parks (especially in South Sulawesi, Central Sulawesi, Southeast Sulawesi, and Maluku) are financed, constructed and operated by Chinese companies, through both loans and equities. In a joint-statement by Prabowo and Xi Jinping, both have identified "green minerals" as a strategic partnership area.

Snapshot: India coal consumption and policies

India cuts coal import from Indonesia, relying on domestic coal and shifting to higher-grade coal. India coal import demand decreased by 23.1%, as domestic coal supply continued to increase and reliance on coal power plants decreased. India plans to rely more on domestic coal supply and reduce coal import dependency. In 2024, India produced 1 billion tonnes and plans to boost coal production by 42% in 2026. 56% of India's coal imports come from Indonesia. India's plan to rely on domestic coal supply and cut import will have a significant implication for Indonesian coal miners. Coal traders expected India's coal import to fall by 10% in 2025.

Overview: Indonesia mineral downstreaming

Mineral downstreaming is not a focus of this research, however the expansion of smelting and mineral refining capacities become extremely relevant as coalemission and captive CFPPs expansions have been rapidly increasing to meet industry energy needs. As the largest nickel producer in the world, Indonesia plans to position itself as a global player for battery and electric vehicles supply chain in 2025. According to MEMR data, there will be 190 nickel smelters in 2025, (54 smelters in operation, 120 construction, 16 planning). 80% of coal new capacity in 2024 was captive power plants.

Captive power plants and smelters are parts of a complex mineral processing supply chain.[12] Financing is rarely treated as an individual or separate project finance loan, therefore tracing specific captive coal plants requires further attention and deeper research. Nickel extraction and processing companies are often joint ventures between domestic and Chinese companies. Tsingshan, Lygend Resources, Huayou Cobalt are few of the dominant Chinese multinational companies operating mineral processing facilities in Indonesian industrial parks (heavily in Sulawesi's Morowali, and Maluku). Banks providing loans and investment to industry projects in Indonesia are largely Chinese banks (view Table VI), and Indonesian domestic banks. For instance, BNI and BCA are members of a loan syndicate in 2022 of Gunbuster Nickel Industry (GNI), a subsidiary of Chinese giant steel companies Jiangsu Delong.

[12] View Nickel Industry Tree Infographic from Kompas' article (March 2025)

Policies

Governments extended coal licences through revising UU Minerba No.3/2020. Many of the mining companies' PKP2B licences that were ending soon are now replaced with IUPK through the UU Minerba No. 3/2020. The government regulation under the UU Minerba No.3/2020 requires **all coal companies to pursue downstreaming.** A revision of UU Minerba in 2025 grants religious groups and small and medium enterprises to participate in coal mining concessions.

Given Indonesia's abundance of coal, the government continues pushing coal downstreaming and domestic consumption. The latest new and renewable energy draft bill ("RUU EBET") draft plans to increase domestic coal sales obligation (DMO) from 25% currently to 30%. Increased DMO was confirmed by MEMR, 2025 volume is higher than 2024.

COAL PROJECTS

Key Coal Miners

This section examines the coal supply chain (upstream to downstream) and maps out stakeholders.

Companies

no	Company name	2024 target production (Mt)	2025 target production (Mt)	Bank Loan (outstanding only)
1	Bumi Resources	74.5 Mt	80 Mt	Yes, 1 loan. Non-bank lender.
2	Adaro Andalan (subsidiary of Alamtri Resources , formerly Adaro)	65 Mt	65.5 Mt	9 loans
3	Bayan Resources	57.4 Mt	72 Mt	4 loans
4	Golden Energy Mines Tbk (GEMs), subsidiary of Dian Swastatika Sentosa (DSSA) affiliate of Sinar Mas Group	50.7 Mt	51-52 Mt	4 loans
5	Bukit Asam	43.3 Mt	50 M	2 loans
6	Indika Energy	30.7 Mt	30.5 Mt	8 loans
7	Indo Tambangraya Megah (ITMG)	20.2 Mt	22 Mt	3 loans
8	Baramulti Suksessarana (BSSR)	21.3 Mt	18.5 Mt (est)	1 loan
9	ABM Investama (Reswara Minergi Hartama is the coal mine holding)	0.66 Mt	11,4 Mt	17 loan

Coal Projects

According to Indonesia's 2025-2034 RUPTL, the government plans to add an additional 6.3 GW of coal capacity (3.7 GW of PLTU mulut tambang and 2.6 GW of non-mulut tambang) **until 2033.** Table III shows breakdown of new coal capacity retrieved from RUPTL each year.

Table III: Summary of RUPTL 2025-2034 additional CFPP capacity

Year	total capacity	Total (MW)	PLN CFPP	IPP CFPP	IPP-CFPP MT
2025	3.2 GW	3226	326	200	900
2026	-	34	34	-	-
2029	0.2 GW	206	6	-	200
2030	0.6 GW	624	24	-	600
2032	1.4 GW	1406	6	-	1400
2033	0.8 GW	847	233	14	600
Total	6.3 GW	**6.342 GW**	PLN: 629 MW	IPP: 5700 MW (5.7 GW)	

Despite the number of proposed new coal projects in Indonesia declining, operating capacity is increasing. The share of industrial coal power plants is rising over the past five years, as the government is accelerating industrialization downstreaming. In the past 10 years, the share of captive coal plants in industrial areas has increased from 8% to 31%.

Coal Fired Power Plants

The list of on-grid captive coal-fired power plants is summarized and retrieved from the latest 2025-2034 RUPTL, news article, and company official websites.

Table IV: List of planned on-grid coal fired power plants 2025-2033 (>300 MW)

No	Project title	Location	Capacity (MW)	COD	Status	Project owners
1	PLTU Mulut Tambang Sumatera (hybrid)	Sumatra	2 × 600	Unit 1: 2032 Unit 2: 2033	Planned	PLN (likely)
2	PLTU Jambi-1 & 2	Jambi	2 × 300	Unit 1: 2026 Unit 2: 2027	Planned	IPP
3	PLTU Mulut Tambang Sumbagsel-1	South Sumatra	2 × 150	2026	Under construction	PLN and private shareholders

PLTU Jambi-1 & 2

- The latest RUPTL announced that it would construct transmission infrastructure of 500 kV and 275 kV with completion dates in 2030 and 2032 respectively.
- PLTU MT Jambi 1 & 2 plans and completion date were mentioned in RUPTL 2021-2030

Captive Coal-Fired Power Plants

The numbers of smelters in 2025 are rising compared to previous years. In March 2024 there were 44 operating nickel smelters. In 2025, there will be 190 nickel smelters (54 smelters in operation, 120 construction, 16 planning).

Energy demand from the smelters will be largely met with coal, demand for coal energy has soared and will likely continue. In the past 10 years, the share of captive coal plants in industrial areas has increased from 8% to 31%. In 2023, coal represented the largest share of industry energy consumption at 56.9%, followed by gas at 21.41% and electricity at 12.7%.

The status of the projects in the national strategic list varies from planned, under construction, and operational. Nickel smelters are located in industrial parks and often powered with captive coal fired power plants or on-grid electric power.

Coal fired power plants (CFPPs) that have been completed are not included, only announced/planned or under construction.

Table V: List of known captive-coal fired power plants 2025-2033 (>500 MW)

No	Project title	Location	Capacity (MW)	COD	Status	Project owners
1	PLTU Halmahera Persada Lygend (HPL)	Obi Islands, Maluku	1,200	Unknown	Planned	Harita subsidiaries (Halmahera Persada Lygend & Obi Nickel Cobalt)
2	PLTU Sulawesi Labota	Central Sulawesi	Unit 1: 1 × 350 Unit 3: 1 × 380	Unit 1: 2025	Under construction	Unit 1: Walsin Nickel Industrial Indonesia (Walsin Lihwa Corp) Unit 3: Indonesia Huaqing Aluminium

Other coal projects that have been announced in public, their statuses remain unclear.

Xinyi group

- Mentioned in CREA's Indonesia's captive coal on the uptick report.
- According to Global Energy Monitor, Xinyi group plans to construct a new coal-fired power plant with a capacity of 2.5 GW in Rempang Island, Riau.
- In December 2024, Xinyi provided a response stating that it does not plan to construct a new CFPP.

Nanshan Industrial

- Mentioned in CREA's Indonesia captive coal report, located in Bintan Alumina Indonesia's (BAI) industrial park.
- Only 160 MW of CFPP was constructed, the rest of the electricity is provided by PLN.

Weda Bay CFPPs

- According to CREA and GEMs, the CFPPs cluster has a total capacity of 4.5 GW (2 × 250 MW, 8 × 380 MW). Most of the power plants have already been constructed, with an exception of 1 × 380 expected to be completed in 2024.
- An article mentioned that all the construction of the coal plants are expected to be completed in 2024.

Smelters are often owned by a joint venture between a domestic corporation and Chinese companies. Lenders tend to come from Chinese banks (view table below).

Table VI: Past examples of smelters investors

Name of Project	Location	Project Owner(s)	Coal power plant	Project status	Financing status
Delong nickel station	Konawe, Southeast Sulawesi	PT Virtue Dragon Nikel Industri (VDNI)	Delong Nickel Phase II Power Station 10 units, total capacity 1460 MW all operating	Financial close in December 2020	Bank of China (BOC), China Development Bank, China Construction Bank, ICBC, Agricultural Bank of China, CITIC bank, China Merchants Bank, and Tai Fung Bank
Indonesia Morowali Industrial Park (IMIP)	Central Sulawesi	Indonesia Morowali Industrial Park (IMIP) is a JV between Shanghai Decent Investment (Group) Co., Ltd. (49.69% shareholder), Bintang Delapan (25.31% shareholder), a domestic Indonesian firm, and Sulawesi Mining Investment (SMI) (25% shareholding)	This complex is powered by a series of captive CFPP of over 2 GW capacity, 700 MW under construction as of 2021. List of plants in Table 8.1.	Most units achieved financial closure. Phase 5 started construction in 2020, financial status unknown.	China Development Bank, BOC, EXIM Bank of China, HSBC (Hong Kong), Reed International, China-ASEAN Investment Cooperation Fund
The Obi high-pressure acid leach (HPAL) nickel-cobalt project/the OBI Ferronickel Project	Obi Islands, Maluku	Halmahera Persada Lygend, a joint venture between Indonesia's Harita Group and China's Ningbo Lygend	600 MW coal fired projects currently at permitting stage, construction will commence in 2023.	In 2021, it was at permitting stage. Financial close in May 2023, US$780 million syndicated loan.	Agricultural Bank of China, Bank of China, China CITIC Bank Corporation Limited Ningbo Branch, Shanghai Pudong Development Bank Co., Ltd. Ningbo Branch, Industrial Bank Co., Ltd. Ningbo Branch and China Guangfa Bank Co., Ltd. Ningbo Branch

Co-firing

Co-firing or fuel-switching is widely recognized as "low-carbon" solutions by MEMR and PLN, an option that would prolong the usage of CFPPs instead of decommissioning the plants. Co-firing involves mixing biofuel into existing coal plants. Low capex is cited as the main reason the government resorts to co-firing as a transition strategy, because co-firing doesn't require building new power plant infrastructure and can extend the lifespan of existing coal plants. As of February 2025, the government has implemented co-firing in 47 CFPPs, and plans to co-fire 52 CFPPs in 2025. The 52 CFPPs to be co-fired would need an approximate 10.2 million tonnes of biomass. The expansion of co-firing can potentially drive the demand for biomass industrial land (Hutan Tanaman Industri - HTI), which have implications on land conflict as some areas fall within the indigenous group land and emission increase from land use.

The role of biomass in blending in coal plants is expected to increase in the 2035-2040 period, blending of fuel may reach up to 100% with coal plants retrofitting. The latest RUPTL identified that biomass needs for co-firing would reach 7.7 million tonnes in 2030.[13] The government does not identify the list of CFPPs to be co-fired. Coal plant fuel blending with biomass, ammonia, and hydrogen is expected to rapidly increase - potentially up to 100% blend with retrofitting - after 2035.[14]

Coal Downstreaming

Derivatives of coal such as coal bed methane, liquefied coal and coal gasification have been identified as sources of "new" energy in the latest RUPTL. All coal concession permit holders are required to develop coal derivatives. This demonstrates the government's attempts to continue coal's relevance. In 2020, MEMR has identified seven coal downstreaming products, namely: coal gasification, coke making, underground coal gasification, coal liquefaction, coal quality enhancement, briquette making, and coal slurry/coal water mixture. One coal downstreaming flagship project is Bukit Asam's Muara Enim dimethyl ether (DME) plant. One of coal downstreaming products, dimethyl ether (DME), is claimed to be used to replace domestic LPG and reduce reliance on imported LPG.

All holders of Perjanjian Karya Pertambangan Batu Bara (PKP2B) and IUPK permit holders are required to develop coal downstreaming products.[15] As of May 2025, 7 coal mining companies received IUPK extension. These companies are required to pursue coal downstreaming and have proposed the following projects:

1. PT Kaltim Prima Coal (Bumi): Methanol, US$ 2.17 billion
2. PT Arutmin (Bumi): Methanol and ammonia, estimated COD 2026. US$2.7 billion
3. PT Adaro: DME (coal to methanol), 1.34 million DME/year, estimated COD 2027
4. PT Kideco Jaya Agung (Indika): Ammonia and urea conversion using gas
5. PT MHU: Semi-coke, US$ 81.3 million
6. PT Tanito Harum: Semi-coke US$42.23 million
7. PT Berau Coal: Methanol, US$774.8 million

[13] RUPTL 2025-2034, p. V-95. (PDF 331)
[14] According to CREA's study, starting from 2040. Starting 2035-2040, blending of biomass, ammonia, and hydrogen would increase in existing CFPPs

[15] According to Minerba Law No 3/2020

Challenges

Coal downstreaming projects require sizable investment but have struggled to attract investors. In early 2025, the government has approved a total of 4 coal downstreaming projects, with investment needs of US$11 billion. The challenge of attracting investors stems from the weak economic case. Indonesia's Head of Mining Association cited technology barriers, offtaker business schemes, and investment challenges as major barriers to DME and coal downstreaming projects.

Existing DME projects have lost investors. Bukit Asam and Kaltim Prima's DME projects lost Air Products and Chemicals (APCI) in 2023. APCI initially signed a US$15 billion planned investment for Indonesian DME plants, and withdrew its investment in 2023 citing weak economic case as the reason. Bukit Asam is still seeking further investment.

Financing Scheme

MEMR introduced multiple fiscal and non-fiscal incentives to accelerate coal downstreaming projects. One of the incentives stipulated in Perpu Cipta Kerja in 2022 includes a 0% royalty tariff for companies pursuing coal downstreaming, however the impacts of the policies have yet to be seen. The government further signals the priority of coal downstreaming projects, by prioritizing coal downstreaming investments under Danantara - Indonesia's Sovereign Fund's (Danantara). The government stated that state-owned banks may be mandated to invest in downstreaming projects.

INVESTORS: BANKS

Indonesian domestic banks have provided a total of US$7.2 billion in 2021-2024.[16] Mandiri and BNI appeared as lenders in nearly all 7 companies examined.[17]

The 5 Indonesian banks (Mandiri, BRI, BNI, BCA, Permata) alone have provided US$5.6 billion to coal companies in 2021-2024. Bank Mandiri has provided the largest loan amount to coal companies and highest frequencies compared to other banks (see Table VIII).

Table VII below shows the breakdown of each bank.

Table VII: Amount of Funding to Indonesian 7 Largest Coal Companies

Indonesian banks loans (2021-2024)*	
Mandiri	$3,200,871,299.00
BRI	$809,584,872.00
BNI	$719,663,030.00
BCA	$450,912,525.70
Permata	$424,076,938.46
Total loans by 5 banks	**$5,605,108,665.16**

Table VIII: Banks Loans Distribution

Indonesia coal companies	ADRO	BYAN	GEMS	PTBA	ITMG	ABMM	Total (since 2021)
BCA	2	1					3
BNI	2			1	1	4	8
BRI	2					1	3
Danamon			1				1
OCBC NISP						1	1
Mandiri	2	1	2	1		4	10
Mega		1					1
Permata	2	1	1		2		6

[16] According to Bersihkan Bankmu Coalition's internal analysis

[17] According to Bersihkan Bankmu Coalition's internal analysis. Coal companies that have outstanding loans: Alamtri Resources / Adaro (ADRO), Bayan Resources (BYAN), Bukit Asam (PTBA), Bumi Resources (BUMI), Golden Energy Mines (GEMS), Indo Tambangraya Megah (ITMG), ABM Investama (ABMM)

Banks Coal Policies Overview

Otoritas Jasa Keuangan (OJK) has published two versions of taxonomy which became the reference points for the banks. The latest version was published in February 2025. In order to prioritize green sectors, the taxonomy used a traffic light system (red, green), and have identified "coal mining" and "unabated coal power generation" as projects that harm the environment and climate. **Given how 5 Indonesian banks do not prohibit lending to coal power generation and coal mines, the banks are endorsing and enabling investment in projects threatening the climate. ESG policies of Indonesian banks contradict the spirit of the ASEAN Taxonomy.**

Excerpt from ASEAN Taxonomy

The ASEAN Taxonomy aims to promote environmentally sustainable activities. The automatic 'Red' classification of certain Activities reflects a commitment to mitigating climate change and transitioning towards cleaner, more sustainable energy sources. In this way, the ASEAN Taxonomy signals a focus on investments that align with the region's environmental goals, fostering a shift towards low-carbon and climate-resilient economies within the AMS. The following Activities may not be classified as 'Green' or 'Amber' by either the FF or the PS, and are ***therefore automatically classified as 'Red'.***[18]

Energy

- Coal or oil power generation without CCUS;
- Heat recovery from coal or oil fuelled power generation;
- Coal mining or oil extraction, refining, processing or production and associated supply chain infrastructure.

From March 2025, exporters of natural resources in nickel, coal, and palm oil are required to keep all export proceeds 100% onshore (domestically) for 12 months - compared to 30% of proceeds for 3 months previously. This policy is intended to strengthen Indonesian foreign currency reserves and increase by US$90 billion a year. **However, this policy also has the potential to increase banks liquidity and allow banks to provide more lending to its coal clients.**

[18] View Appendix G "Activities Classified as Red" from the ASEAN Taxonomy document.

Table IX: Summary of banks coal policies

Banks	ESG or Coal Policies	Policy details	Status and involvement
Domestic Banks			
BCA	ESG Policy on Financing Coal (Feb 2023)	Conclusion: Lending to coal is not prohibited	Alamtri Resources (Adaro) Bayan Resources
BNI	ESG Risk Management Policy (2024), p. 45 of PDF NZE 2060	Conclusion: Lending to coal is not prohibited Metal Ore Mining & Refiner Smelter: • There is no bad news about violations of environmental regulations, both local and international. • Zero Accidents or at least work accidents in the last 3 years are prioritized. Workers have used adequate Personal Protective Equipment (PPE), adhered to work SOPs, work training & personal safety, occupational health and safety insurance, working in shifts. For coal-fired power plant financing, priority is given to those who already have one or more of the strategies below: • Energy transition; or • Emission reduction strategy; or • Strategies to reduce negative impacts on the environment	Bukit Asam ABM Investama

BRI	Coal Loan Policy (June 2024) [19] NZE 2050 (SBTi certified)	Conclusion: Lending to coal is not prohibited No specific document on "Coal Loan Policy," however parameter is outlined in investor presentation, below: • Requires borrower to have Energy Transition Roadmap for reducing GHG emissions and implement energy management in compliance with regulations (NZE 2060) • Prohibits Black PROPER	GEMS ABM Investama
Mandiri	Coal mining sector policy (Dec 2024) Energy sector policy (Dec 2024) NZE 2060	Conclusion: Lending to coal is not prohibited COAL MINING POLICY **Borrower's Criteria** • Fulfilling Environmental Impact Analysis (AMDAL) or Environmental Management Efforts and • Monitoring Efforts (UKL-UPL) in accordance with applicable laws and regulations (including reclamation and post-mining assurance). • PROPER Assessment Results (Company Performance Rating Assessment Program in Environmental Management) minimum green. • Having Occupational Health and Safety (OHS) Management Plan covering risks, mitigation, and monitoring processes such as OHSAS 18001 or other similar documents acceptable to the Bank. • Aligning with the government's coal phase-out regulations (for coal-fired power plant suppliers).	Aggregate lending Industry grew by 13.93% Mining grew by 39% (highest across all economic sectors) (Mandiri Annual Report 2024, p. 203 PDF) Bukit Asam Bayan Resources GEMS ABM Investama

[19] This is an assumption. Oil & Gas Sector Policy published in June 2024.

		Prohibition Bank Mandiri **will not** knowingly finance activities or projects including but not limited to: • Financing projects that endanger the environment. • Violating or not in accordance with applicable legal provisions. • Seriously endanger the environment and/or protected areas (such as UNESCO World Heritage Sites). • Other activities prohibited by laws and regulations. ENERGY POLICY (coal-fired power plant) **Criteria** • For the construction of a new Coal-fired Power Plant, has considered the suitability of the financing period with the government's energy transition timeline. **Prohibits** • Financing projects that endanger the environment • Violating or not in accordance with applicable legal provisions • Seriously endanger the environment and/or protected areas (such as UNESCO World Heritage Sites) • Other sectors prohibited by laws and regulations.	

Permata	Sustainability Report 2024	No prohibition to finance coal Referred to "Credit Policy and the Sustainable Financing Special Policy" – but the document has not been found? Permata Bank incorporates environmental, social, and governance (ESG) criteria into its credit approval process, as outlined in the Credit Policy and the Sustainable Financing Special Policy. Specific requirements are in place for mining and palm oil industries through specialized Mining ESRA and Palm Oil ESRA assessments.	Bayan Resources Indo Tambangraya Megah
Regional Banks (Singapore)			
DBS	Approach to Coal Phaseout	From January 2026, we will stop financing customers who derive more than 50% of revenue from thermal coal, except for their non-thermal coal or renewable energy activities. DBS approach to responsible financing document (March 2022)	
OCBC	Sector Specific Policies (July 2024)	We will not finance, new financing or **refinancing** to thermal coal mines including significant expansion and refinancing of existing / operating thermal coal mines.	

Reputational Risks

Changing perception of financial institutions' customers or partners can lead to potentially damaging reputation risks. Climate or environmental issues are linked to reputational risks to organizations affiliated to a project. Banks linked with projects containing poor reputation are at risk of losing investors and stakeholder trusts. For example, Adaro lost a major potential buyer due to Hyundai's decision to withdraw from Adaro after the company's reputation came under fire due to its new coal plant.

Examples of coal plants and mining projects prone to reputation risks:

1. Indramayu 2 CFPP - Bandung Administrative Court revoked Indramayu's coal plant environmental permit after a lawsuit by residents of Mekarsari village and surrounding area.
2. Cirebon 2 CFPP - Is under investigation due to allegations of bribery between project developers and local government authorities.
3. Multiple CFPPs in Java (Adipala Cilacap, Batang, Tanjung Jati B, Jepara) - Residents from Java Northern Coastal areas and Save Central Java Sea advocacy group filed a lawsuit to the Central Java Provincial Government due to its negligence in managing wastewater from multiple coal plants.
4. Multiple CFPPs in Sumatra (Aceh, North Sumatra, Bengkulu) - Multiple groups submitted environmental and human rights violations of three CFPPs to United Nations Human Rights High Commission (UNHCR).
5. PT Dairi Prima Mineral (DPM), zinc and tin mines - Indonesia's Ministry of Environment revoked DPM's environmental permit due to strong opposition by local communities given the environmental damages of zinc and tin mines.

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