

Final Report

Political-Economy Landscape for Advancing Indonesia-China Energy Transition Agenda

March 2025

Founded by



TheJakartaPost



UNIVERSITAS
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I. Background

❑ **Indonesia's decarbonization commitment**

- Aims to achieve net-zero emissions by 2060
- Energy transition requires substantial financial, technological support from international partners.

❑ **Declining support from Western-backed climate finance**

- Uncertainty and slow fund disbursement from JETP
- U.S. withdrawal from the Paris Agreement further weakens confidence in JETP and Western-backed climate financing.

❑ **China's growing role in energy transition**

- China is now a key RE investor through the BRI and the AIIB
- Financed 69% of Asia's renewable capacity growth in 2023 and pledged US\$100 billion for developing countries.

❑ **Challenges of China's energy investments**

- Historically, China the largest investor in Indonesia's CFPP, now shifting to renewables,
- Already dominant in EV manufacturing, and critical minerals (nickel)
- Environmental concerns in nickel smelting (pollution, deforestation, marine contamination)

❑ **Given these dynamics, it is essential to analyze the economic and political landscape shaping Indonesia-China cooperation in energy transition.**

Objectives

- 1. Analyze the political-economic landscape of Indonesia-china energy transition**
 - Examine the policies, regulations, and key actors shaping bilateral energy cooperation.
- 2. Identify key factors influencing Indonesia-China relations in advancing Indonesia's energy transition.**
 - Assess investment incentives, regulatory challenges, and China's geopolitical influence in Indonesia's energy sector.
- 3. Evaluate the sustainability impact of energy transition projects**
 - Analyze the environmental, social, and economic effects of Chinese investments in renewable energy, EVs, and nickel downstream industries.
- 4. Assess challenges and opportunities in bilateral and multilateral energy cooperation.**
 - Investigate policy barriers, legal reforms, and the role of initiatives like BRI and JETP in advancing energy transition.
- 5. Develop policy recommendations for strengthening indonesia-china energy cooperation.**

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2. China's Energy Transition Landscape

- China's energy transition development
- China's expansive outward RE Investment

2.1. China's Energy Transition Development

Despite still being the world's largest coal consumer, China has become a global leader in renewable energy development and electric vehicles (EVs).

China's Energy Transition Action Plans

China has adopted a series of policy frameworks to drive its energy transition, including:

- **The Renewable Energy Law (2006 & 2009 Amendment)**, which introduced feed-in tariffs (FIT), mandatory grid connection for renewable energy, and financial incentives.
- **The Five-Year Plans (FYPs)**, particularly the 14th FYP (2021-2025), which sets ambitious targets for renewable energy capacity and carbon intensity reduction.
- **The 1+N Policy Framework (2021)**, outlining China's roadmap for achieving peak carbon emissions by 2030 and carbon neutrality by 2060.
- **The Carbon Neutrality Pledge (2020)**, committing to phasing out coal and accelerating investments in renewables.

China's Renewable Energy Law

The Renewable Energy Law (2006) and its 2009 amendment laid the foundation for China's energy transition by mandating:

- **Mandatory Grid Connection:** Power grid operators were required to prioritize renewable energy purchases, ensuring market access and stimulating investment.
- **Feed-in Tariffs (FIT):** A pricing system to ensure stable & attractive electricity pricing for renewable energy sources.
- **Renewable Energy Development Fund:** A dedicated fund was established to provide subsidies and financial support for renewable infrastructure and technology development.
- **Planning and Target Setting:** The government was mandated to set and enforce national and regional renewable energy targets.
- **Penalties for Non-Compliance:** Fines were imposed on grid operators and entities failing to adhere to mandatory grid connection policies.
- **Technological Development:** The law promoted R&D in renewable energy, driving advancements in solar, wind, and other green technologies.
- **Public-Private Sector Collaboration:** It encouraged partnerships between state-owned enterprises, private investors, and foreign stakeholders to expand the sector.

2.2 China's Power Market (1)

❑ Pre-Reform Structure

- Dominated by State Power Corporation of China (SPCC), a vertically integrated monopoly controlling generation, transmission, distribution and pricing.

❑ The 2002 Reform – the first wave

- It was announced under Document No.5/ 2002 by State Council
- It aimed to dismantle the SPCC's monopoly by separating power generation from transmission and distribution.
- This unbundling of generation and grid operations created a dual structure:
 - **Grid operators (SGCC, CSG)** retained exclusive rights over transmission and distribution infrastructure.
 - **Power Generators ('Big Five' SOEs)** were expected to compete based on efficiency, cost, and performance.

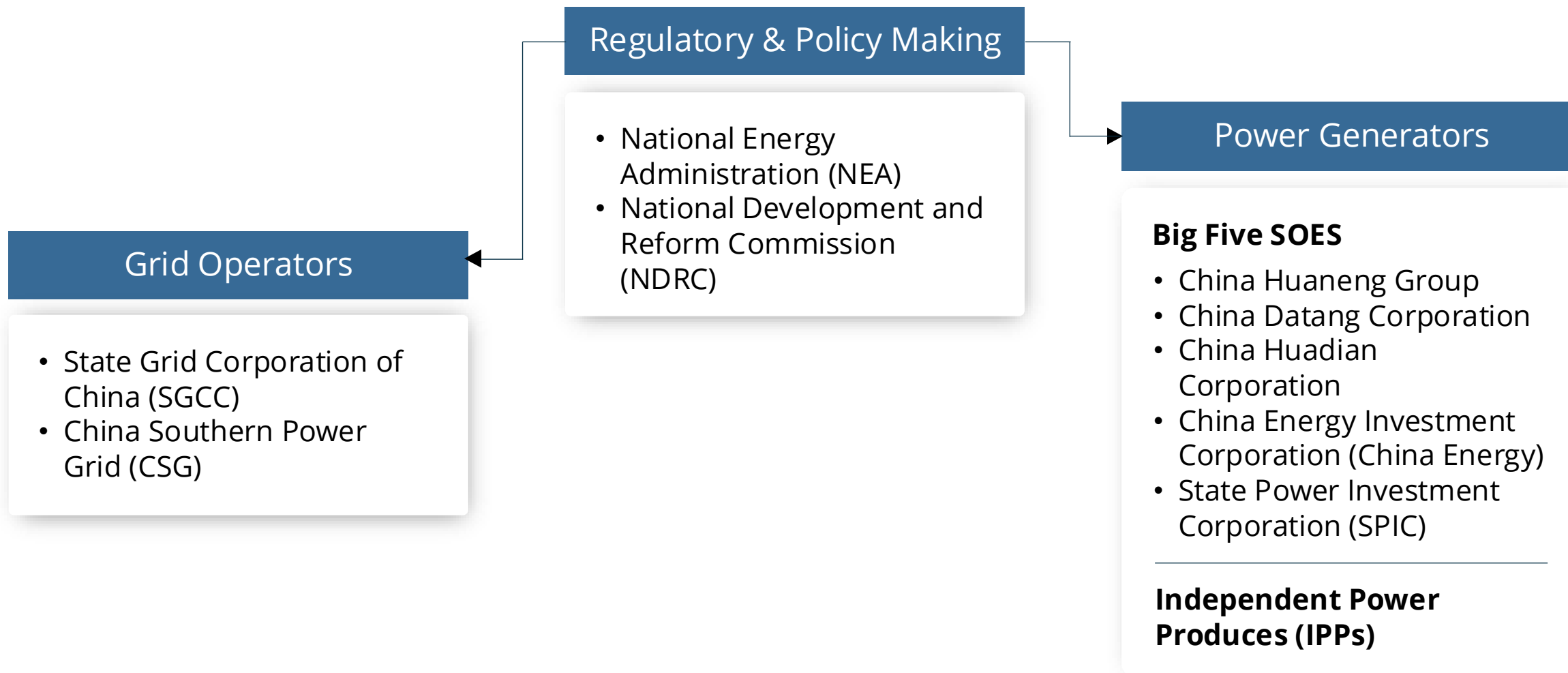
- ❑ Despite these reforms, China's power system remains largely state-controlled, particularly in terms of transmission and pricing.

China's Power Market (2)

□ The 2022 Reform – The second wave

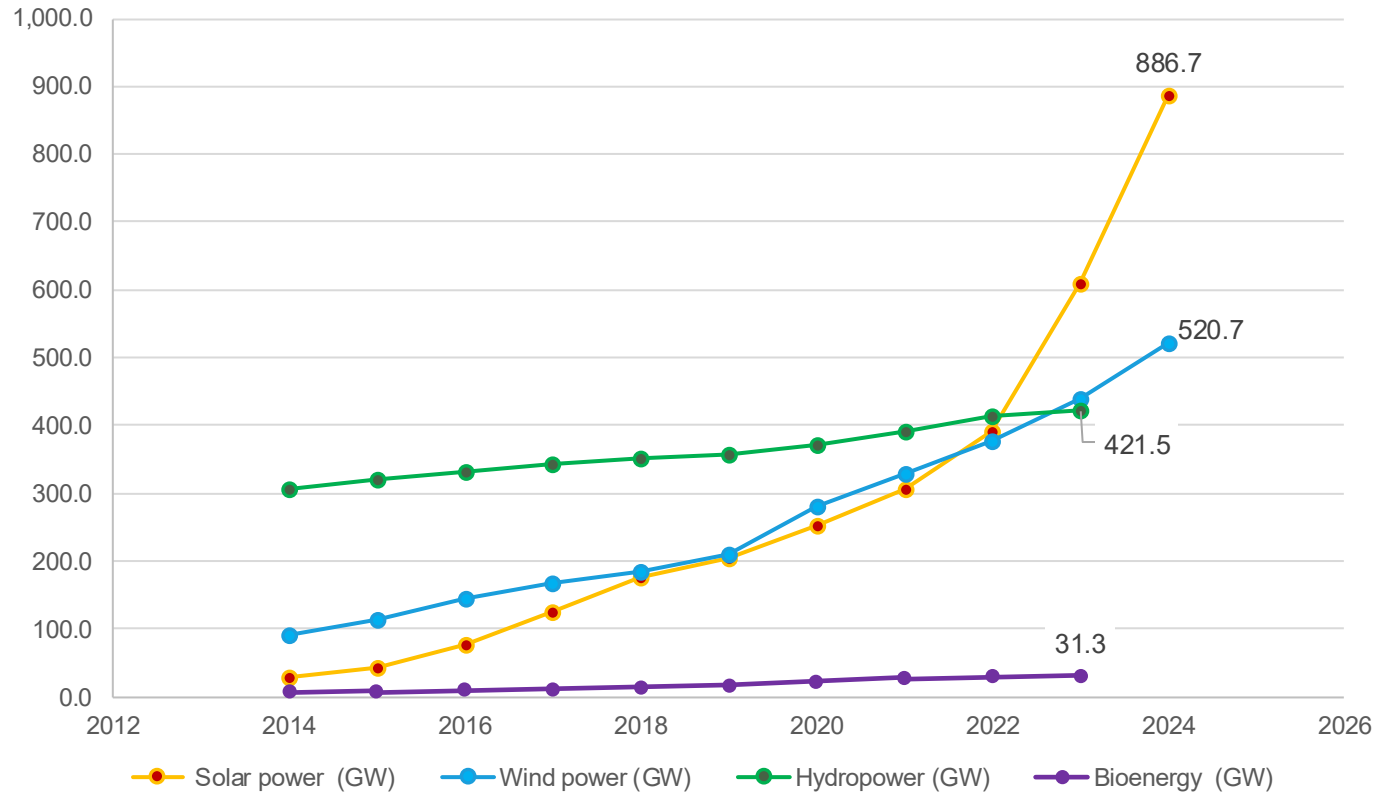
- Aimed to accelerate decarbonization and enhance market integration
- Main goals:
 - Establish a unified national electricity market by 2025.
 - Develop spot markets and direct trading mechanisms.
 - Enhance inter-provincial power trade.
 - Enable large-scale integration of renewables (solar, wind, storage).
- Impacts:
 - Greater access for Independent Power Producers (IPPs) via direct Power Purchase Agreements (PPAs).
 - Mandated grid openness and smart grid development by SGCC/CSG.
 - Integration of green electricity markets and carbon pricing systems.

Key Players in China's Electricity Sector

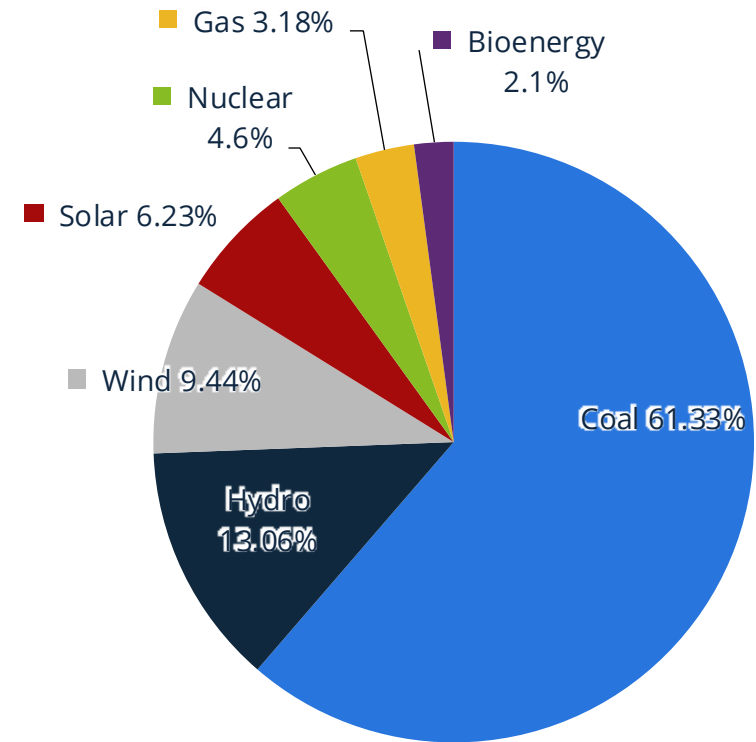


China's Renewable Energy Progress

Cumulative Renewable Energy Capacity in China by Source 2014-2024 (Gigawatts)



China's electricity capacity by source in 2023



2.3 China's Expansive Outward Renewable Energy Investment



❑ Economic opportunity driven by Chinese government subsidies

- **China's clean energy industry was initially export-driven**, supplying Germany and other Western markets in 1990s.
- **The 2006 Renewable Energy Law** and its 2009 amendment provided a strong legal foundation for supporting large-scale renewable energy expansion.
- **Unprecedented scale of industrial subsidies:** As of 2019, China allocated \$237 billion in subsidies (1.73% of GDP) fueling solar, wind, and EV industries to expand rapidly and dominate global markets.
- Gov's subsidies have enabled China to **maintain cost leadership in renewable energy technologies**, despite international trade barriers.

❑ Strategic shift to China's domestic market

After facing tariffs from the US and EU on solar and wind products (2014), China pivoted toward:

- **Expanding its domestic renewable energy market**, installing 392 GW of solar capacity by 2022.
- **Through the Five-Year Plan (FYP)**, China is integrating large-scale renewable energy projects into the national development plan.
- **Scaling up wind and solar mega-projects to achieve 1,454 GW in 2023**, particularly in Xinjiang (wind energy) and the Hexi Corridor (solar energy).
- **The Whole County PV project:** the integration of distributed solar PV systems in rural areas.

❑ **Overcapacity in China's Renewable Energy Sector**

China's rapid renewable energy expansion led to overproduction of solar panels, and wind turbines. Key issues include:

- **Market saturation in China**, forcing manufacturers to seek external markets.
- **Mismatch between production and domestic demand**, leading to falling prices and profitability concerns.
- **Shift towards exporting overcapacity**, particularly to **developing countries** under the Belt and Road Initiative (BRI).
- China's ability to offload excess production into emerging markets has strengthened its global renewable energy footprint.

❑ **China's Market Expansion to Developing Countries**

- **Southeast Asia** (Indonesia, Vietnam, Thailand), where it dominates solar and wind energy projects.
- **Africa and Latin America**, where China finances large-scale hydropower and solar farms.
- **BRI energy projects**, which provide financing for infrastructure development while expanding China's geopolitical influence.
- By capturing these markets, China secures long-term demand for its renewable energy products and technologies.

❑ **China's Geopolitical Strategy for Dominance in the Global South**

China's outward renewable energy investment serves as a strategic tool to:

- Counter Western influence in energy transition financing (e.g., Just Energy Transition Partnership - JETP).
- Secure political and economic leverage over resource-rich developing nations.
- Establish China as a global standard-setter in renewable energy technologies.
- As Western-led financing initiatives face delays, China's fast and large-scale investments make it the preferred partner for many developing economies.

❑ **China Dominating Global Supply Chains of Green Technology**

China controls the global supply chain for key green technologies, including:

- Lithium-ion battery production, with investments in Indonesia, Chile, and Argentina for nickel and lithium extraction.
- Solar panel manufacturing, producing over 80% of the world's solar panels at lower costs than Western competitors.
- EV and battery technology leadership, supported by China's vertically integrated supply chain.
- By dominating these industries, China sets technical standards for the global renewable energy transition, ensuring long-term dependency on its technology and expertise.

3. Indonesia's Energy Transition Landscape

- RI's energy transition policy and development
- Power market
- Policy on EV
- Boosting nickel downstream

3.1 Indonesia's Energy Transition Policy and Development

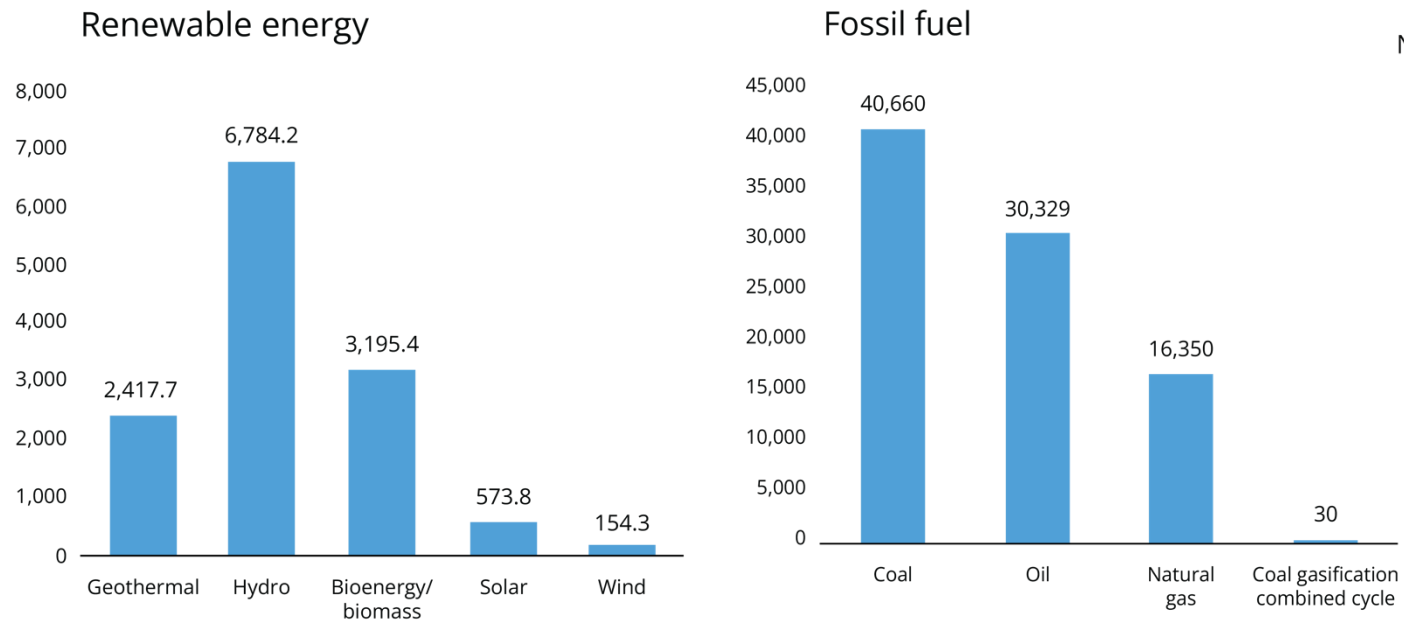
- The country's commitment and energy transition policies are guided by the National Energy Policy (KEN) and the National General Energy Plan (RUEN).
- The revised draft of KEN approved by House of Representatives in Feb 2025 introduces greater flexibility in implementing the energy transition.
- Indonesia's energy policy will focus on energy security and self sufficiency.
- The National Electricity Master Plan (RUKN) 2024-2060 was published on the same day (Nov 29, 2024) when the Constitutional Court ruled that the House must be consulted when issuing the RUKN.
- the RUKN 2024-2060 sets new targets to meet the 8% economic growth and align with NZE target of 2060.

Targets based on energy transition policy

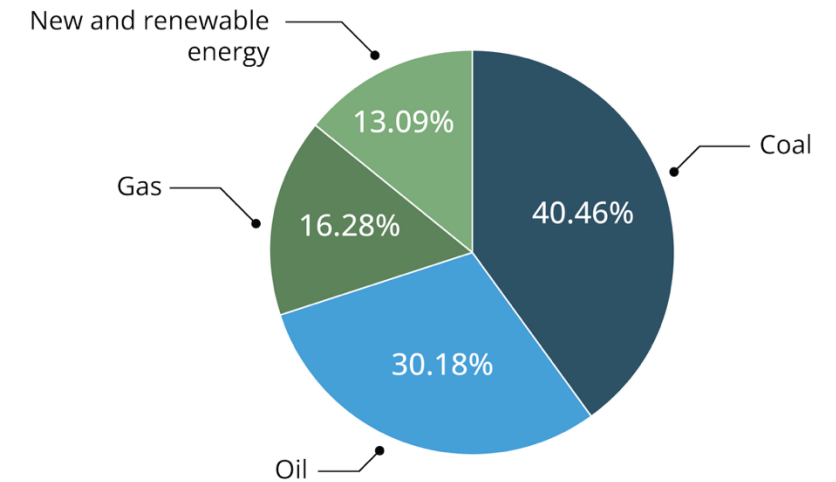
Energy Mix	2023	2030	2044	2060
Total Capacity (GW)	91	260	295	443
Coal + Gas + CCS	86.01%	77%	52%	22.3%
New and Renewable Energy	13.09%	21%	52%	77.7%
Renewable Energy		17%	31.8%	55%
Solar	1%	1.6%	15.9%	32%
Wind	0.2%	0.5%	1.1%	1.3%
Hydro	7.45%	2.2%	3.8%	5.1%
Geothermal	2.66%	3.9%	4.4%	4.4%
Bioenergy	3.51%	8,8%	6,6%	12.2%
New Energy			5.3%	27%
Nuclear	-	-	4.7%	12.1%
Hydrogen	-	-	0.6%	5.6%
NH3	-	-	-	9.3%

Indonesia's Energy Transition Development

Indonesia's power plant capacity by source in 2023 (MW)

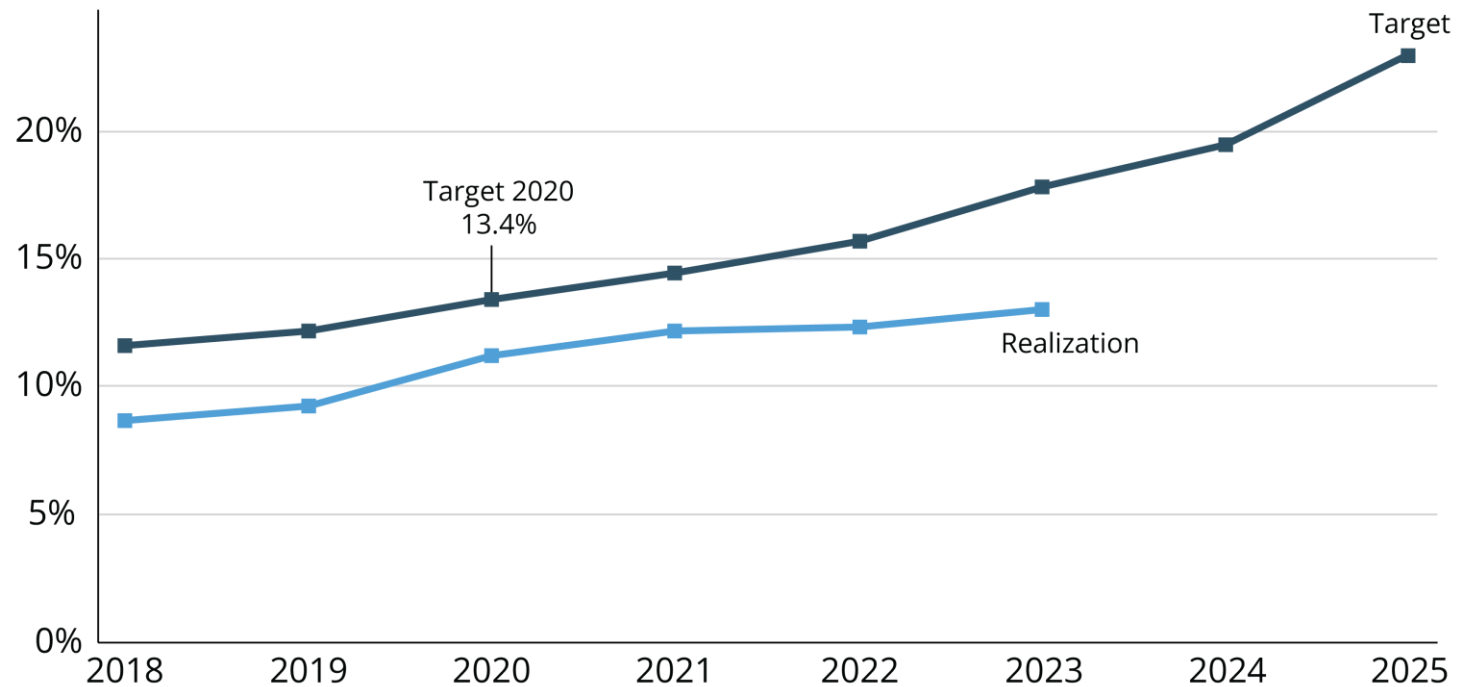


Indonesia's energy mix in 2023



Indonesia's Energy Transition Development (2)

Target and realized renewable energy in the national energy mix



3.2 Indonesia's Power Market

- ❑ PLN, the Main Actor in Indonesia's Power Market
 - PLN tends to sideline variable renewable energy and prefers baseload renewable energy
 - Hydro and geothermal need a huge investment and longer development time
 - Privates face challenges in operating energy supply businesses due to licensing issues

- ❑ Electricity Surplus in Java-Bali Network
 - It makes investment for new electricity (RE) projects not attractive for PLN
 - Oversupply in Java-Bali, present an opportunity for early retirement of coal-fired power plants.
 - Take or Pay (ToP) clause exacerbates oversupply issues.

3.3 Indonesia's Policy on EV

Presidential Regulation No.55/2019 and Presidential Regulation No.79/2023

Supply

Charging Infrastructure (*ESDM Regulation No.13/2020*)

- Charging infrastructure (SPKLU) development

Component localization (*Industry Minister Regulation No.6/2022*)

- 40% Local content requirement (TKDN) to get a VAT reduction until 2026, 60% starting from 2027 until 2029, and 80% starting from 2030.

Tax holiday (*PMK No.69/2024*)

Corporate income Tax Holiday up to 20 years

- 50% tax reduction for investment Rp100 billion up to less than Rp500 billion
- 100% tax reduction for investments Rp 500 billion and more.

Import tariff exemption (*BKPM No.6/2023 and PMK No. 10/2024*)

- 0 import duty for CBU and CKD BEVs until Dec. 31, 2025.
 - CKD needs to comply with TKDN of 20% - 40%

Demand

Value Added Tax reduction (*PMK No.8/2024*)

- VAT reduction for BEVs from 11% to 1% for EV with 40% TKDN

Luxury goods tax exemption (*PMK No.9/2024*)

- Luxury goods tax (PPNBM) are covered by the government for CBU and CKD EV

Down payment exemption

- 0 percent down payment requirement for EV since 2020 and has been extended to all vehicles.

Road restriction exemption (*Government Regulation No.88/2019*)

- EV is exempted from Jakarta's odd-even license plate regulation

Public procurement (*Presidential Instruction No.7/2022*)

- Mandated government officials to use BEVs as official government vehicles

Result of the Policies on EV

- ❑ Supply Side: The entrance of global EV manufacturers
 - Entry of EV assembling facilities investment from China (Wuling, BYD, Sokon, MG, Cherry, Neta) and South Korea (Hyundai)

- ❑ Demand Side: The boosting of EV adoption in Indonesia.
 - In 2024, Indonesia's EV sales jumped from 13,916 units last year to 43,188 units, an increase of 153% year-on-year.
 - Total sales of EVs since 2021-2024 reached 65,378 units (Gaikindo)

3.4 Boosting Nickel Downstream Industry

- Over the next 20 years, demand for battery materials is expected to increase by 60 to 70%. Indonesia supplies more than 40% of the world's nickel needs, boasting over 14 operating mines.
- The government, through the Energy and Mineral Resources Ministry Regulation No.11/2019 concerning nickel downstream policy, bans exports of nickel ore beginning Jan. 1, 2020.
- The ban has benefited smelters, mostly owned by Chinese investors, that process nickel into pig iron, ferro-nickel and nickel-metal.
- Indonesia's export value of processed nickel products jumped from US\$3.3 billion in 2018 to US\$30 billion by 2022.
- **Key criticism:** domestic processing currently stops at nickel pig iron, ferronickel, and nickel matte, requiring further refining abroad.

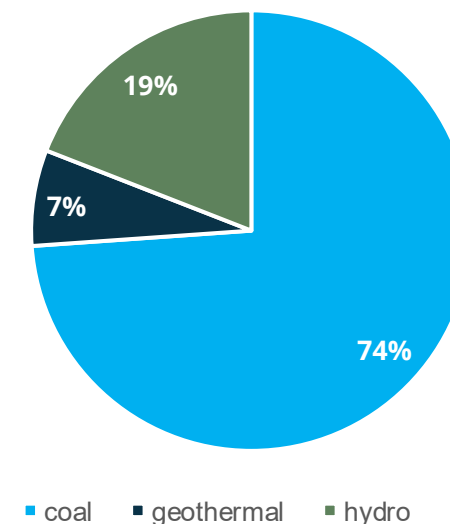
4. China's clout in Indonesia's Energy Transition

- Clout in electricity and renewable energy
- Dominance in RI's EV industry
- Dominance in RI's nickel downstream
- Challenges of China's dominance

4.1 China's Clout in Electricity and Renewable Energy

- China's energy investments in Indonesia are dominated by Coal-Fired Power Plants (CFPP).
- China's investment in captive power plants for nickel processing continues to expand.
- China's renewable energy investments began with hydropower under Belt-Road Initiative (BRI).
- Chinese firms had heavily invested in nickel mining and processing, securing a dominant position in the sector.
- China dominates 90% of Indonesia's EV market, with 6 Chinese firms establishing local assembly plants (BYD, Wuling, Sokon, Chery, Neda and MD)

Chinese investment through BRI
(2013-2023)



Coal-fired power plant (on-grid)

Investor/ Bank	Investment amount	Power plant name
China Datang Corporation Ltd (equity)	US\$ 1.09 billion	CFPP Meulaboh – Aceh (400 MW) CFPP Sumsel (SS-5) – South Sumatra (350 MW) CFPP Kalteng-1 – Central Kalimantan (200 MW) CFPP Kendari-3 DSSA – Southeast Sulawesi (100 MW) CFPP Pindo Deli-II – West Java (50 MW)
Shenhua Holding Group (equity)	US\$ 2.05 billion	CFPP Jawa-7 - Banten (2,100 MW) CFPP Simpang Belimbing (300) CFPP Sumsel-1 (700)
China Huadian Co. (equity)	US\$ 2.38 billion	CFPP Bangko Tengah (SS-8) - Jambi (1320 MW) CFPP Celukan Bawang – Bali (426 MW)
Power Construction Corporation of China	US\$ 360 million	CFPP Pulau Baai Bengkulu (300 MW)
Export Import Bank of China (Debt)	US\$ 2.9 billion	CFPP Pangkalan Susu – North Sumatra (440 MW) CFPP Parit Baru – West Kalimantan (110 MW) CFPP Takalar – South Sulawesi (200 MW) CFPP Pacitan – East Java (630 MW) CFPP Pelabuhan Ratu – West Java (945 MW) CFPP Paiton Baru – East Java (660 MW) CFPP Tanjung Kasam – Riau (945 MW) CFPP Teluk Naga – Banten (945 MW) CFPP Suralaya – Banten (625 MW) CFPP Labuhan Angin – North Sumatra (230 MW) CFPP Nangroe Aceh – Aceh (220 MW)

Investor/ Bank	Investment amount	Power plant name
State Development & Investment Corp Ltd	US\$ 990 million	CFPP Banten Serang - Banten (660 MW)
China Development Bank (debt)	US\$ 2.6 billion	CFPP Cilacap Sumber 4 – Central Java (1000 MW) CFPP Cilacap Sumber 3 – Central Java (660 MW) CFPP Adipala – Central Java (700 MW) CFPP Teluk Sirih – West Sumatra (224 MW) CFPP Indramayu – West Java (990 MW) CFPP Rembang – Central Java (632 MW)
Bank of China (debt)	US\$ 724 million	CFPP Tanjung Awar-Awar – East Java (700 MW) CFPP Jawa 9 & 10 – Banten (2000 MW) CFPP Indramayu – West Java (990 MW) CFPP Rembang – Central Java (632 MW)

Captive Coal Power Plant (off-grid)

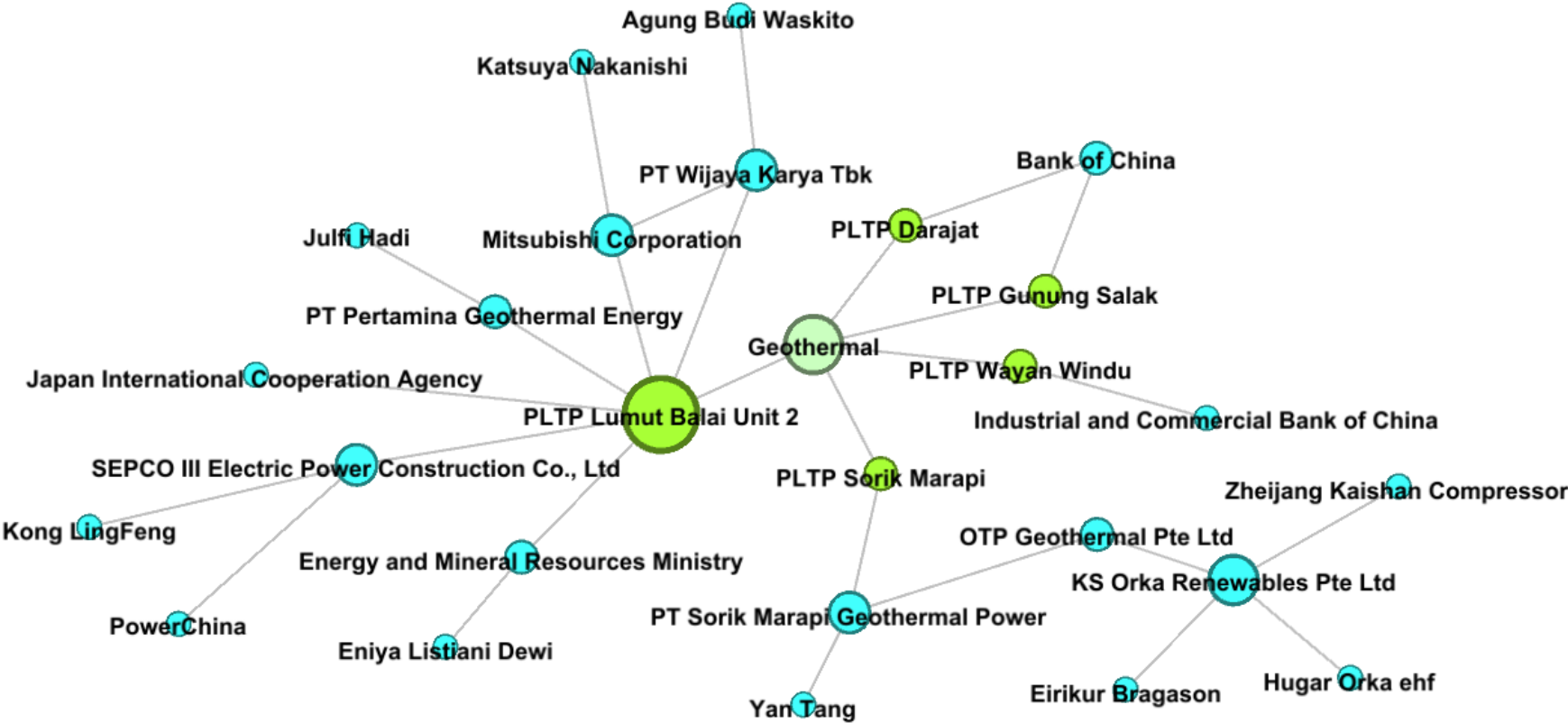
Chinese Investor	Affiliates	Location
Tsingshan Holding Group (THG)	Sulawesi Mining Investment (510 MW) Tsingshan Steel Indonesia (130 MW) Indonesia Tsingshan Stainless Steel (1400 MW) Hua Chin Aluminium Indonesia (380 MW) Indonesia Guang Ching Nickel and Stainless Steel Industry (300 MW)	Indonesia Morowali Industrial Park (IMIP) - Morowali, Central Sulawesi
Jiangsu Delong Nickel Industry Co.Ltd	Gunbuster Nickel Industry (Delong Nickel Phase III power station) (2295 MW) PT Dexin Steel Indonesia (150 MW)	PT Stardust Estate Investment (SEI) - North Morowali, Central Sulawesi
Huayou Holding Group	Huake Nickel Indonesia (250 MW) Huayou Nickel Cobalt (250 MW)	PT Indonesia Pomalaa Industrial Park (IPIP) - Kolaka, Southeast Sulawesi
Jiangsu Delong Nickel Industry Co.Ltd	Obsidian Stainless Steel (2220 MW) Virtue Dragon Nickel Industry (530 MW)	The Virtue Dragon Nickel Industrial Park (VDNIP) - Konawe, Southeast Sulawesi
Tsingshan Holding Group (THG)	Weda Bay Nickel (250 MW) Angel Nickel Industry (760 MW)	Indonesia Weda Bay Industrial Park (IWIP) - Halmahera, North Maluku
Tsingshan Holding Group, Huayou Holding Group, Zhenshi Holding Group	Indonesia Weda Bay Industrial Park (1140 MW) Youshan Nickel Indonesia (250 MW)	
Tsingshan Holding Group, Zhenshi Holding Group Co.,Ltd, Zhejiang Huajun Investment Co., Ltd.	Yashi Indonesia Investment (250 MW)	
Lygend Resources & Technology Co,Ltd	Halmahera Jaya Feronikel (1074 MW) Obi Nickel Cobalt (1520 MW)	Obi Industrial Estate - Obi Island, North Maluku

China's investment in Hydropower & Geothermal

Hydro Power Plant	Investor	Total Investment (US\$ million)
Hydropower Development	Yellow River Engineering Consulting Co., Ltd. (YREC) and Changjiang Institute of Survey, Planning, Design, and Research (CISPDR)	
Kayan (9,000 MW)	Power Construction Corporation of China (PowerChina)	
Sembakung (250 MW)	China Huadian Hongkong	
Kusan (41 MW)	Guang Yin New Energy Indonesia	216
Asahan-I (180 MW)	China Huadian Corporation Ltd	300
Jatigede (110 MW)	The Export-Import Bank of China (debt)	470
Batang Toru (510 MW)	State Development and Investment Corp	1,670
Karama (450 MW)	China Gezhouba Group Corp	2,199

Geothermal Power Plant	Investor	Total Investment (US\$ million)
Lumut Balai Unit 2 (51 MW)	SEPCO III Electric Power Construction	
Sorik Marapi (240 MW)	KS Orka Renewables Pte Ltd	1,000
Gunung Salak (37 MW)	Bank of China (debt)	37
Wayang Windu (18 MW)	Industrial and Commercial Bank of China (debt)	18
Gunung Salak (37 MW)	Bank of China (debt)	37
Darajat (41 MW)	Bank of China (debt)	41

Geothermal

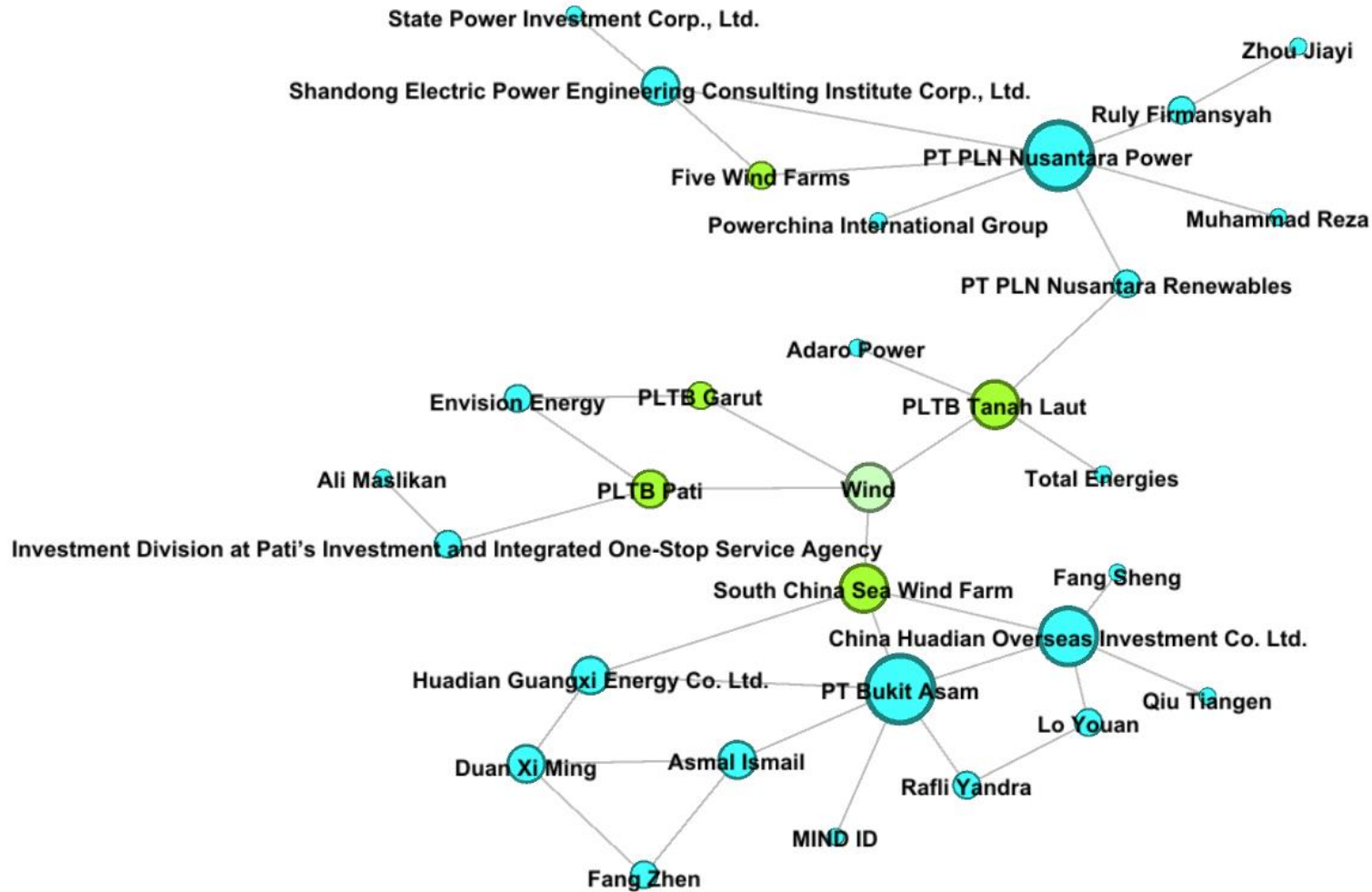


China's investment in Solar & Wind Energy

Solar Power Plant	Investor	Total Investment (US\$ million)
Rempang Eco City (NA)	Xinyi Group	11,600
Gunung Salak (1 Gwp/year)	Trina Solar	100
South Sumatra Solar Power Plant (300 MW)	Tebian Electric Apparatus Co., Ltd. (TBEA)	
Floating Solar Power Plant (200 MW)	Envision Energy	

Wind Power Plant	Investor	Total Investment (US\$ million)
Pati Wind Power Plant (255 MW)	Envision Energy	283
SCS Wind Farm (1,300 MW)	China Huadian Overseas Investment Co. Ltd. and Huadian Guangxi Energy Co. Ltd.	NA
Five Wind Farms (1,000 MW)	Shandong Electric Power Engineering Consulting Institute Corp., Ltd. (SDEPCI) and PowerChina	NA

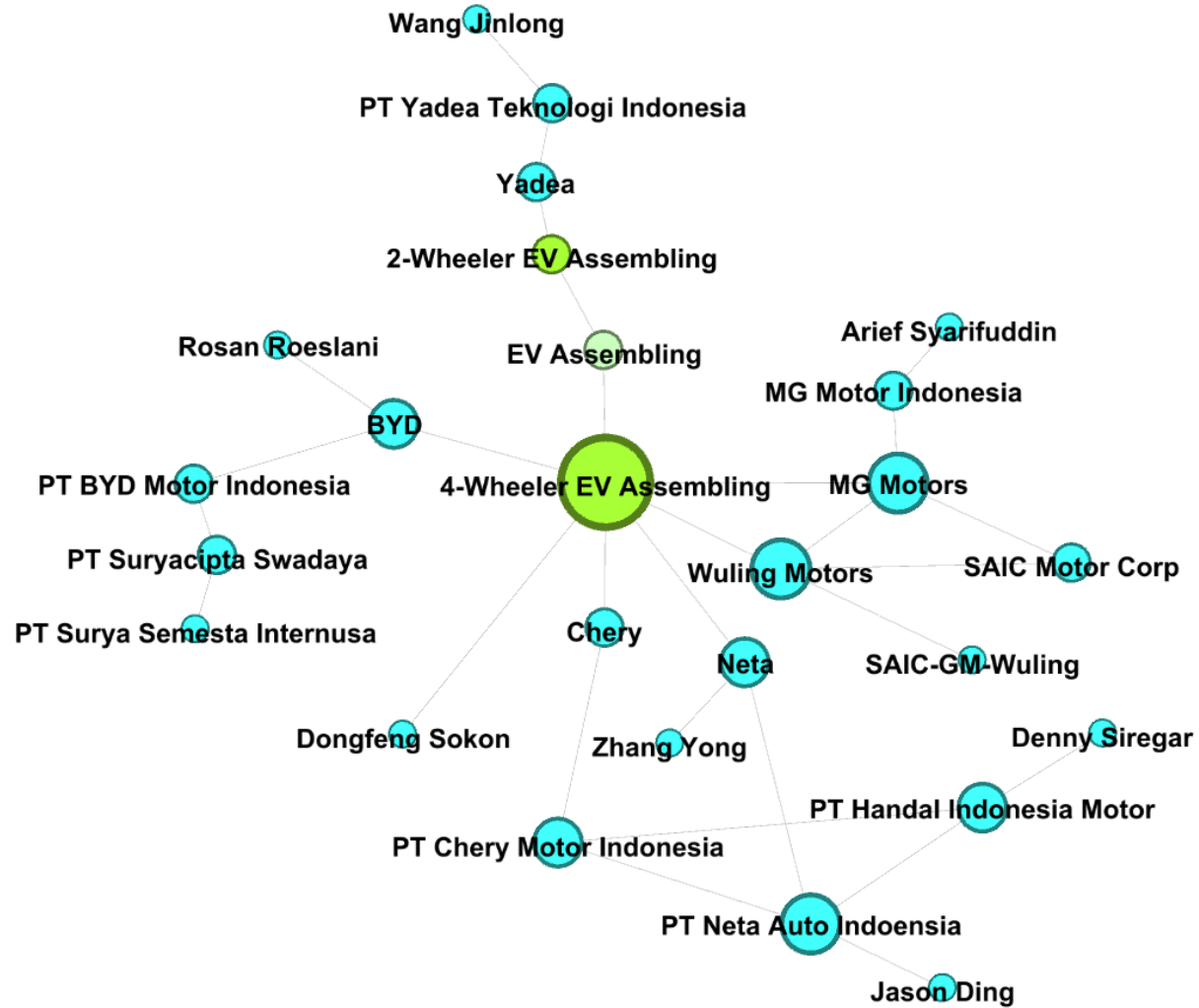
Wind



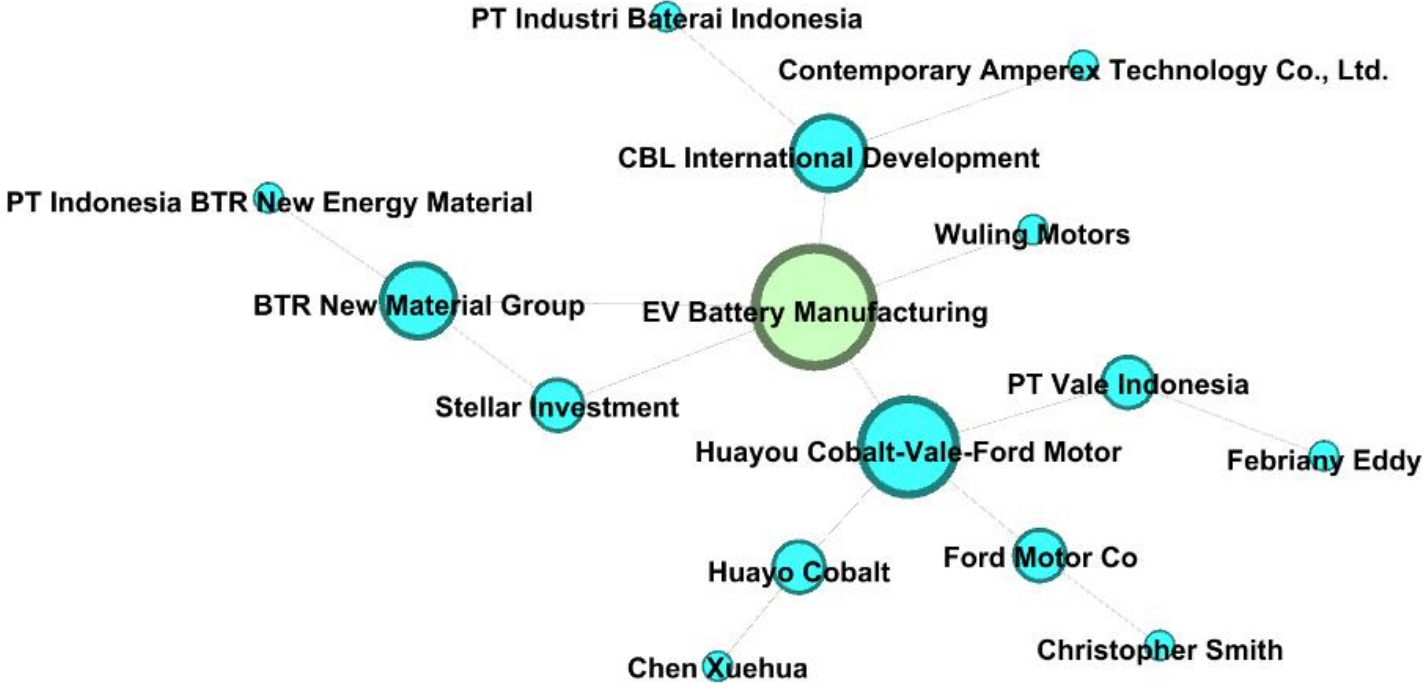
4.2 China's Dominance in Indonesia's EV Industry

EV Facilities	Investor	Production Capacity	Total Investment (US\$ Million)
EV Assembling	BYD (Equity)	150,000/year	1,300
EV Assembling	Wuling (Equity)	120,000 units	1,000
EV Assembling	Sokon (Equity)	50,000/year	150
EV Assembling	MG (Equity)	NA	258
EV Assembling	Chery (NA)	8,000/year	16
EV Assembling	Neta (NA)	9,300/year	NA
2W EV Assembling	Yadea (Equity)	3 million/year	150
EV Battery Manufacturing	Wuling (Equity)	20,000 units/year	484
EV Battery Manufacturing (HPAL)	Huayou Cobalt (Equity)	120,000 tons of MHP/year	NA
EV Battery Manufacturing	CATL (Equity)	15 GWh/year	1,180
EV Battery Manufacturing (Anode)	BTR (Equity)	80,0000 metric tons/year	478

EV Assembling



EV Battery

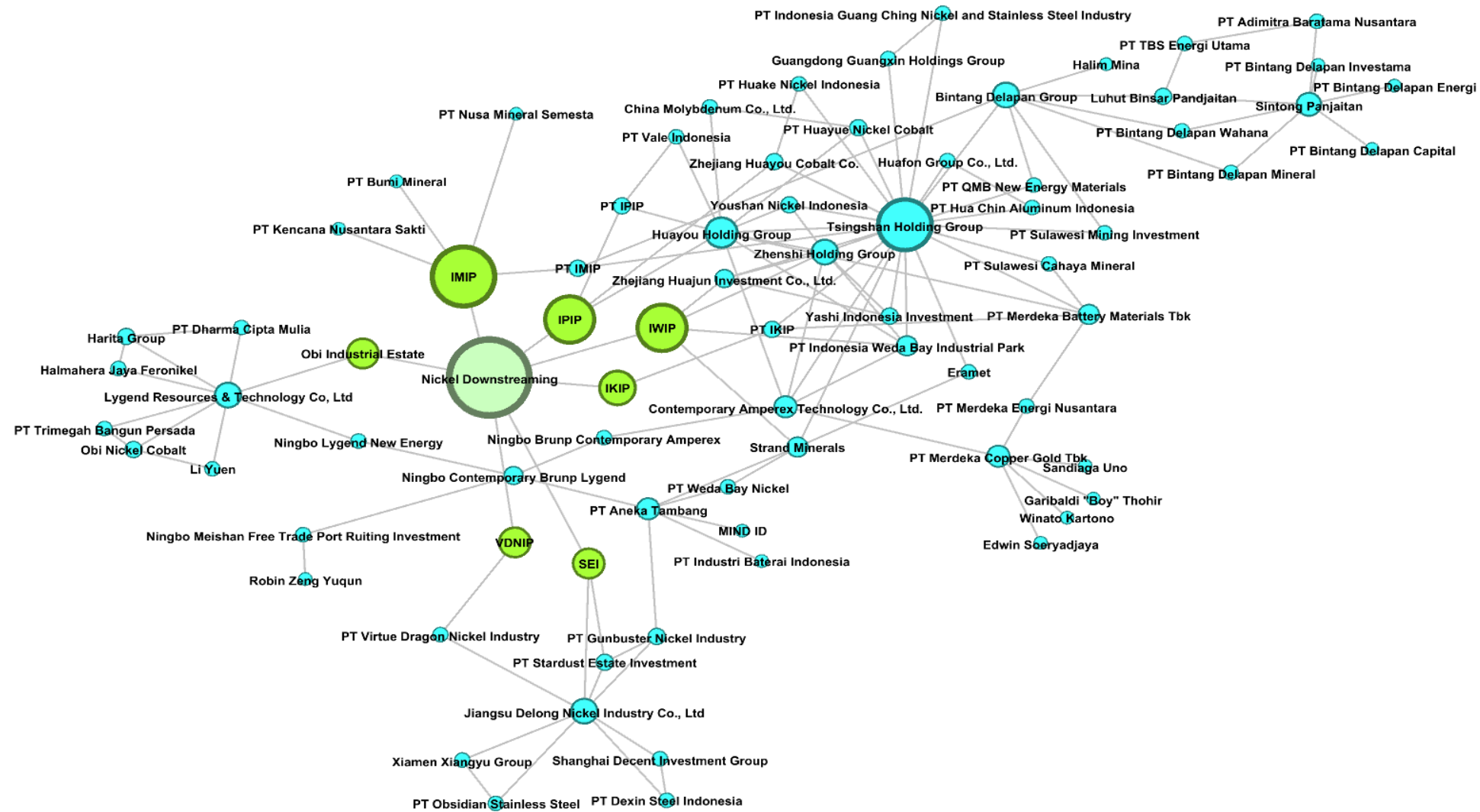


4.3 China's Dominance in Nickel Downstream

Industrial Park	Chinese Investor	Partner	Investment Amount	Joint Venture
IMIP, Central Sulawesi	Tsingshan Holding Group	Bintang Delapan Group (Indonesia)	US\$20.93 billion (Rp 324.4 trillion)	PT IMIP
				PT Sulawesi Mining Investment
				PT QMB New Energy Materials
		Huafon Group Co., Ltd. (China)	US\$921.18 million (Rp13.82 trillion)	PT Hua Chin Aluminum Indonesia
	Guangdong Guangxin Holdings Group (China)	US\$1 billion (Rp15 trillion)	PT Indonesia Guang Ching Nickel and Stainless Steel Industry	
IPIP, Southeast Sulawesi	Huayou Holding Group	PT Vale Indonesia (INCO)	US\$10 billion (Rp 162.9 trillion)	PT Indonesia Pomalaa Industrial Park (IPIP)
	Huayou Holding Group	China Molybdenum Co., Ltd. (China)	US\$1.28 billion (Rp 19.2 trillion)	PT Huayue Nickel Cobalt
		Tsingshan Holding Group (China)		
	Zhejiang Huayou Cobalt Co.	Tsingshan Holding Group (China)	US\$500 million (Rp 7.5 trillion)	PT Huake Nickel Indonesia
VDNI, Southeast Sulawesi	Jiangsu Delong Nickel Industry Co., Ltd	Xiamen Xiangyu Group (China)	US\$ 973.04 million (Rp15.77 trillion)	PT Obsidian Stainless Steel
	Jiangsu Delong Nickel Industry Co., Ltd	-	US\$ 1.4 billion (Rp 22.76 trillion)	PT Virtue Dragon Nickel Industry
SEI, Central Sulawesi	Jiangsu Delong Nickel Industry Co., Ltd.	PT Gunbuster Nickel Industry (GNI)	US\$2.6 billion (Rp42.9 trillion)	PT Stardust Estate Investment (SEI),
	Jiangsu Delong Nickel Industry Co., Ltd.	Shanghai Decent Investment Group (China)	US\$2.86 billion (Rp42.9 trillion)	PT Dexin Steel Indonesia

Industrial Park	Chinese Investor	Partner	Investment Amount	Joint Venture
IWIP, North Maluku	Tsingshan Holding Group	Eramet (France)	US\$8.55 billion (Rp 128.25 trillion)	Strand Minerals
	Strand Minerals	PT Aneka Tambang (Indonesia)	US\$15 billion (Rp 225 trillion)	PT Weda Bay Nickel
	Tsingshan Holding Group	Huayou Holding (China)	US\$ 11 billion (Rp165 trillion)	PT Indonesia Weda Bay Industrial Park (IWIP)
		Zhenshi Holding Group (China)		
		Contemporary Amperex Technology (China)		
	Tsingshan Holding Group	Huayou Holding (China)	US\$406.79 million (Rp 6.1 trillion)	Youshan Nickel Indonesia
	Zhenshi Holding Group			
	Tsingshan Holding Group	Zhenshi Holding Group Co., Ltd.		Yashi Indonesia Investment
Zhejiang Huajun Investment Co., Ltd.				
Obi Industrial Estate, North Maluku	Lygend Resources & Technology Co, Ltd	Harita Group (Indonesia)	US\$ 594 million (Rp 9.63 trillion)	Halmahera Jaya Feronikel
	Lygend Resources & Technology Co, Ltd	Li Yuen (Singapore)	US\$ 140 million (Rp 2.27 trillion)	Obi Nickel Cobalt
		PT Trimegah Bangun Persada (Indonesia)		
	Lygend Resources & Technology	Harita Group (Indonesia)	Rp 31 trillion (US\$1.91 billion)	PT Dharma Cipta Mulia
IKIP, Southeast Sulawesi	Tsingshan Holding Group	PT Merdeka Battery Materials Tbk (MBMA) (Indonesia)	US\$5 billion (Rp 81.14 trillion)	PT IKIP
	Tsingshan Holding Group	PT Merdeka Battery Materials Tbk (MBMA) (Indonesia)	51% MBMA 49% Tsingshan	PT Sulawesi Cahaya Mineral

Nickel Downstreaming



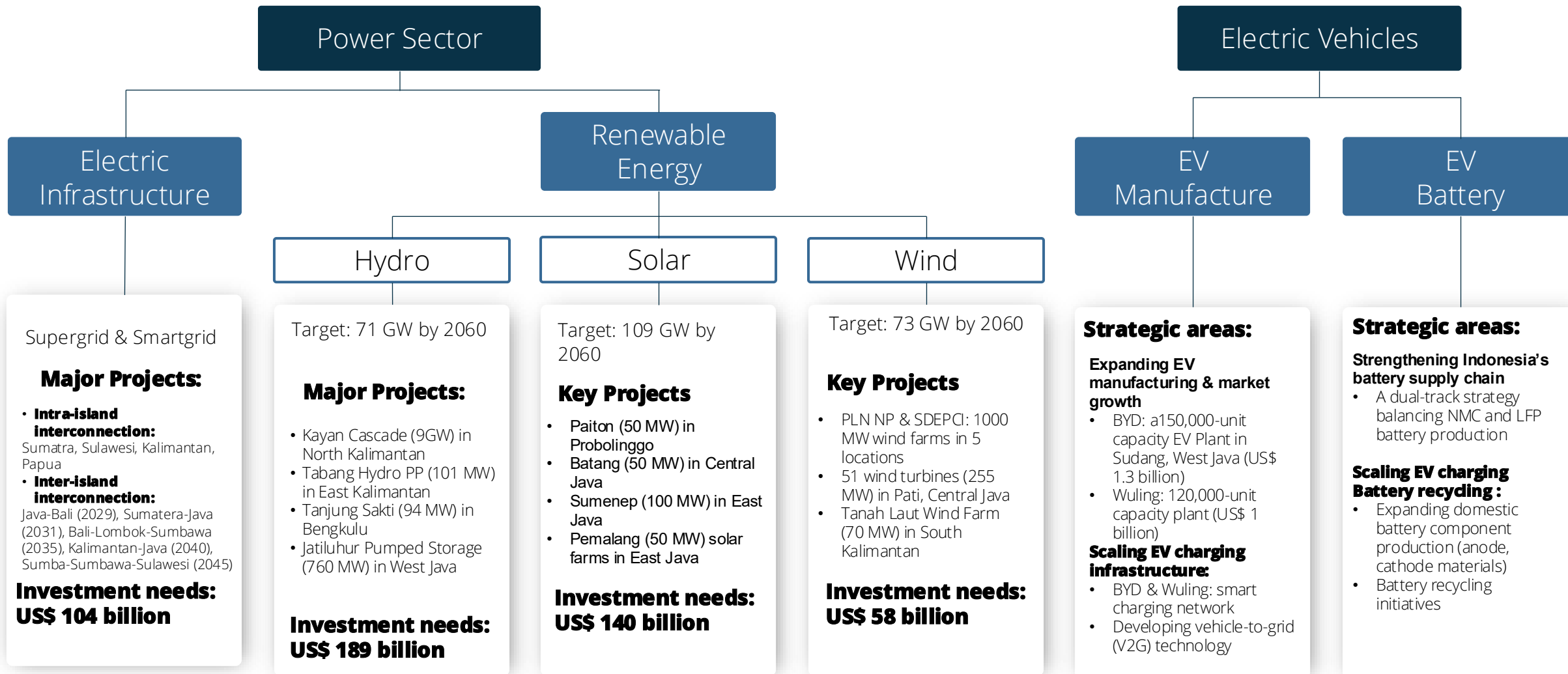
4.4 Challenges of China's Rising Investment in Indonesia

- ❑ **Illegal Workers, Perceived Discrimination Against Local Workers:** Due to a shortage of skilled workers for nickel processing, Chinese investors often need to bring in workers from China
- ❑ **Weak Health, Safety, Environmental (HSE) Standards:** Chinese-funded projects have poor safety records, with high workplace fatalities and hazardous conditions.
- ❑ **Displacing Local Communities:** Large-scale projects displaced thousands of locals, often without proper compensation or legal recourse, sparking violent protests.
- ❑ **Triggering Deforestation & Carbon Emissions:** Chinese-backed captive CFPP in nickel hubs increase Indonesia's coal dependency, contradicting green energy transition efforts.
- ❑ **All Chinese Technology:** Chinese investments enforce exclusive use of Chinese technology, limiting local industry participation.
- ❑ **Below-par Infrastructure to Support Renewable Energy:** Indonesia's inadequate electricity infrastructure limits the scalability of Chinese renewable energy investments.

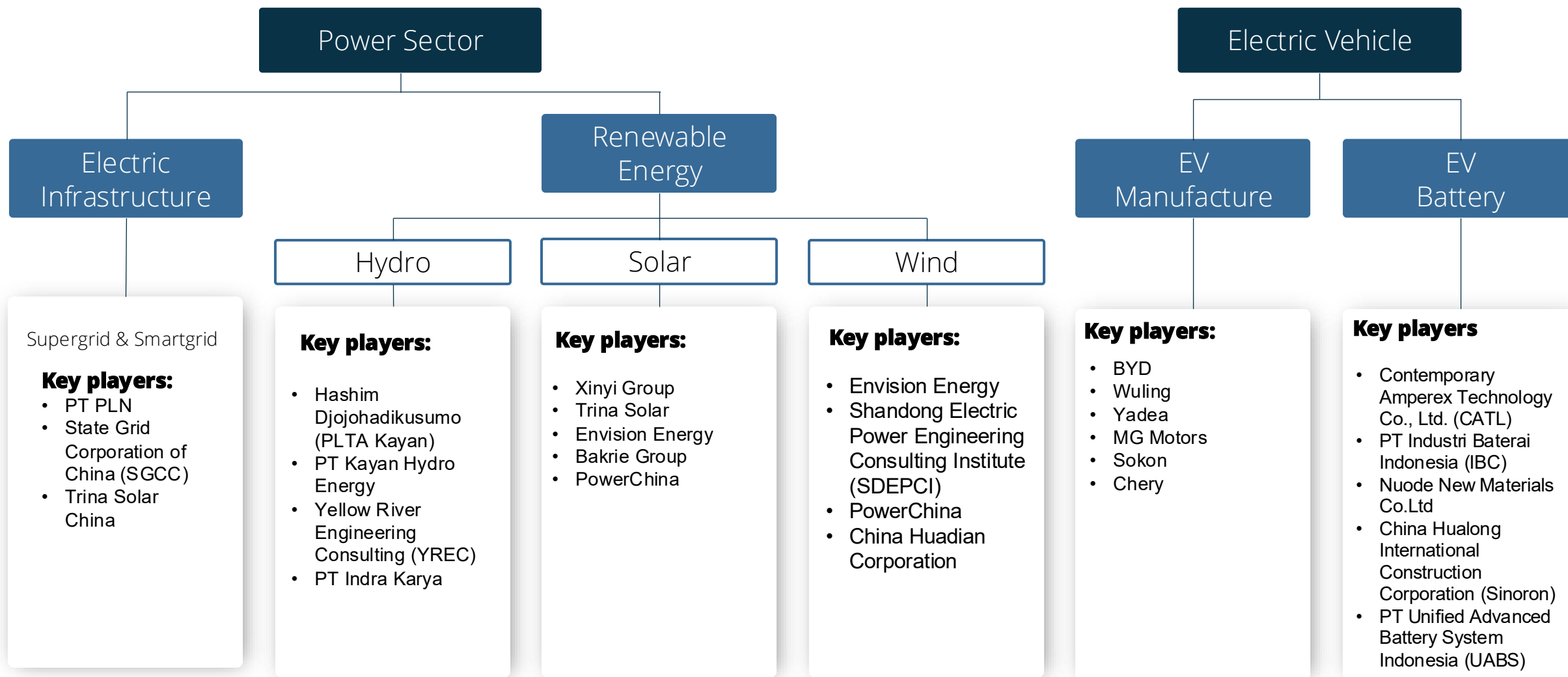
5. Political-Economy Landscape on Advancing China-Indonesia Energy Transition Agenda

- Key potential sectors: RE and EV
- Key potential players in RE and EV
- Key bilateral, multilateral channels

5.1 Potential key sectors for advancing Indonesia-China Energy Transition Cooperation



5.2 Potential key players for advancing Indonesia-China Energy Transition Cooperation



5.3 Advancing Energy Transition via Indonesia-China Bilateral and Multilateral Channels



- Bilateral Cooperation Channels
 - Indonesia China Energy Forum (ICEF)
 - To establish energy cooperation between two countries
 - A bilateral cooperation instrument in which the forum results in foreign direct investment, trade, and macro-economy
 - Joint Commission for Bilateral Cooperation (JCBC)
 - Partnership on investment, technology, capacity building, research, and development in respect of commercial principles
 - To strengthen the comprehensive strategic partnership in increasing investment cooperation in the energy transition sector
 - High-Level Dialogue on Cooperation Mechanism (HDCM)
 - To discuss various related issues of trade barriers, investment, and energy and encourage the acceleration of the implementation of cooperation on the use of local currency/local currency swap
 - President Prabowo's 2024 visit to Beijing
 - MoUs worth US\$10.07 billion (equivalent to Rp 157.64 trillion), which shows the commitment of Indonesia and China to expand investment cooperation in various sectors in line with the government's priority programs, including renewable energy
- Multilateral Cooperation Channels
 - ASEAN & China Partnership
 - RCEP
 - BRICS

5.4 Challenges of Advancing Indonesia's Energy Transition

- ❑ No focal point for Chinese investors
 - Disabandment of Coordinating Ministry for Maritime Affairs and Investment
- ❑ Less willing to advance energy transition
 - Amendment of Coal and Mineral Mining Law
 - Revision of 2025-2029 National Energy Policy (KEN)

Recommendations

Recommendation

1. **Aligning energy transition with long-term electricity targets**

- Integrate investments with RUKN 2024–2060, RUPTL 2025–2034 for policy alignment and stability.
- Expand grid infrastructure by prioritizing HVDC transmission projects with China’s expertise in smart grids and energy storage.
- Prioritize government-backed renewables (hydropower, solar, wind) to ensure long-term investment security.

2. **Learning from China’s Power Sector Reform**

- Draw lessons from China’s power sector reforms that shifted from a centralized monopoly to a more competitive and renewable-friendly system.
- Key takeaways include unbundling, market-based trading, and private sector participation.

3. **Boosting demand for renewable energy**

- Leverage China’s renewable energy surplus through green data centers and energy exports to Singapore.
- Strengthen China-Indonesia corporate partnerships to enhance local industry participation.
- Secure long-term buyers to justify large-scale infrastructure projects.

Recommendation (2)

4. Boosting domestic adoption of EVs

- Extend EV incentives (tax breaks, subsidies) to sustain affordability.
- Expand charging infrastructure by easing investment barriers and standardizing charging ports.
- Strengthen battery warranties to boost consumer confidence

5. Strengthening bilateral & multilateral partnerships

- Enhance Indonesia-China agreements (ICEF, JCBC, HDCM) for investment, expertise, and technology transfer.
- Leverage BRICS & ASEAN+China for green financing and regional energy cooperation.
- Expand China's renewable energy investments under Belt and Road Initiative (BRI).

6. Creating a focal point for Chinese investors

- Assign a dedicated ministry to streamline Chinese investment negotiations.
- Focus on renewables, EV manufacturing, and energy storage as priority sectors.
- Ensure regulatory stability to attract sustained Chinese investment.