

FOUR YEARS ON: ASSESSING CHINA'S OVERSEAS COAL POWER BAN

November 2025



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Centre for Research on Energy and Clean Air



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Four years on: Assessing China's overseas coal power ban

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Authors

Daniel Nesan, CREA

Chengcheng Qiu, CREA

Tom Wang, PACS

Editor

Hannah Ekberg

Contributors

Leovy Ramirez

Bashir Mubiru

Pei Zhao

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The views expressed in this report are those of the authors and should not be attributed to any of the aforementioned.

Cover photo

Delong Nickel Industrial Park, Sulawesi, Indonesia, by Nursadah K.

About CREA

The Centre for Research on Energy and Clean Air (CREA) is an independent research organisation focused on revealing the trends, causes, and health impacts, as well as the solutions to air pollution. CREA uses scientific data, research, and evidence to support the efforts of governments, companies, and campaigning organisations worldwide in their efforts to move towards clean energy and clean air, believing that effective research and communication are the keys to successful policies, investment decisions, and advocacy efforts. CREA was founded in Helsinki and has staff in several Asian and European countries.

About PACS

People of Asia for Climate Solutions (PACS) is dedicated to promoting people-centered climate solutions. We create narratives, build new networks, and establish innovative platforms where different puzzle pieces come together into the vision. Our organization operates through both a China-based team and a Philippines-based team, working to build bridges and strengthen communication between China and climate-vulnerable countries on climate change mitigation and adaptation.



Four years on: Assessing China's overseas coal power ban

Key findings

- China's overseas coal pipeline continues to contract, with the total pipeline (pre-permitted, permitted, and under construction) falling to **31.4 GW** as of July 2025: down from **49.5 GW** in 2024.
- Cancellations accelerated after last year's slowdown, with **16.4 GW** of new capacity officially cancelled in 2025, bringing total cancelled capacity since the 2021 pledge to **59.3 GW**, equivalent to **6.1 billion tonnes** of avoided lifetime carbon dioxide (CO₂) emissions.
- Construction continues in key regions, with **12.1 GW** still under construction across 14 projects: mostly captive coal, which refers to off-grid coal plants that serve mineral-processing and industrial parks, in Indonesia, India, Laos, and Zimbabwe.
- The pre-permitted and permitted pools remain large, at **14.6 GW** and **4.7 GW**, respectively. Many projects have shown no movement since 2023, indicating stalled or speculative developments, yet still pose future risks if revived.
- New 'mothballed' plants emerged as a risk category, with **1.3 GW** of recently built capacity now idle but not retired, notably Bangladesh's Banshkhali (S Alam) power station. These units could be reactivated without new approvals.
- China-backed overseas captive coal projects have added an estimated **1.5 billion tonnes** of lifetime CO₂ representing nearly half of all emissions from projects currently in operation.
- China has yet to designate a lead government agency to coordinate and implement the commitment, leaving gaps in oversight and accountability across overseas energy investments.
- Despite progress, China's overseas coal ban has yet to reach full implementation. The remaining pipeline represents around **3.4 billion tonnes** of potential lifetime CO₂ emissions if completed. Early intervention at the pre-permit and permitted stages remains critical to avoid lock-in.

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Introduction

In September 2021, Chinese President Xi Jinping announced at the United Nations General Assembly that China would ‘not build new coal-fired power projects abroad’, committing instead to supporting green and low-carbon energy development in partner countries. This pledge marked a major shift from the world’s largest public financier of coal, and held the potential to reshape energy pathways across the Global South (Suarez & Wang, 2022).

In the years that followed, the Chinese government formalised the pledge through guidelines under its 14th Five-Year Plan (Meidan et al., 2021) and accompanying ministerial instructions, prompting a visible reshaping of China’s overseas energy pipeline. Many projects were suspended or cancelled outright, while others progressed under new scrutiny. CREA’s earlier analyses have tracked this shift from the announcement in 2021 through its evolving implementation. In particular, our 2024 report assessed the status of 103 coal plants identified at the time of the pledge; representing 102 gigawatts (GW) of capacity under planning, permitting, or construction and evaluated the environmental implications of progress made to date.

According to our 2024 report, as of July 2024, **42.8 GW** of coal projects had been cancelled, preventing an estimated **4.5 billion tonnes** of cumulative CO₂ emissions. However, the overall pace of cancellations slowed significantly between 2023 and 2024, dropping from **15.9 GW** to **5.6 GW**. Meanwhile, **26.2 GW** of new capacity had entered operation since the pledge, including **7.9 GW** commissioned between July 2023 and July 2024 (Nesan, 2024).

Despite the official end to financing of new coal abroad, Chinese-backed coal development continued in several forms. In 2024, **49.5 GW** of capacity remained in development — including projects in pre-permit, permitted, and construction stages — across 52 power plants (Nesan, 2024). Notably, these included newly permitted captive coal facilities that are off-grid and embedded within industrial parks in countries such as Indonesia, Zimbabwe, and Zambia, which remained a significant grey area in the scope of the 2021 commitment.

In September 2025, China and other Shanghai Cooperation Organisation (SCO) member states issued a joint statement on sustainable energy, emphasising China’s role in shaping the global energy landscape and pledging deeper cooperation on renewables (Ministry of Foreign Affairs of China, 2025c). Chinese President Xi announced that ‘we (China) will work



with fellow SCO countries to increase the installed capacity of photovoltaic and wind power each by 10 million kilowatts in the next five years' (Ministry of Foreign Affairs of China, 2025b). Thus, it is important to assess the current status of coal power projects involving Chinese participation in order to support early coal phase-out and make space for the transition to clean energy.

While we have seen Chinese state-owned enterprises and state-owned banks almost immediately stopping all projects and related financing, four years later, Chinese private companies have significantly increased construction of coal power plants in different parts of the world, particularly captive coal power plants to support Chinese-owned mineral extraction and processing plants.

Whether state-owned or privately-owned, these overseas Chinese coal projects are all considered as 'Chinese-backed' to the local communities, therefore, understandably, raising concerns as to why the breaching of China's 2021 pledge is allowed or tolerated by Beijing. At the same time, the combustion of coal has significant economic and health impacts on local and transboundary communities, as well as the climate, whether captive or not, and must be controlled and stopped as soon and as much as possible. The expansion of off-grid captive coal that serves industrial needs has been happening despite the series of guidelines issued by multiple ministries including the Ministry of Ecology and Environment, the Ministry of Commerce, the National Development and Reform Commission, and the Ministry of Foreign Affairs, requiring all Chinese companies to aim for implementing the highest global standards of best available technology (BAT) for coal power plants, and to be aligned with the Paris Agreement.

Since mid-2025, China has been actively promoting and developing zero-carbon industrial parks domestically (State Council Information Office, 2025), even as the construction of captive coal plants overseas continues in countries such as Indonesia and Zimbabwe, which has drawn criticism of double standards by Chinese companies.

The real root cause of these persisting problems of Chinese private companies building more captive coal power plants overseas, besides weak, or in many cases a lack of, policies in the host countries, is the fact that four years later, we are yet to see a specific high-level government agency in China be assigned to lead the coordination and implementation of the 2021 commitment.

As China takes up a growingly prominent leadership role on the global climate mitigation and adaptation arena with more commitments announced, it is critical that a specific



government executive body is tasked with engaging other policy makers and businesses in China, and coordinating with stakeholders in host countries, so that, ultimately, China can ensure delivery and implementation of its international announcements.

The latest Nationally Determined Contributions (NDCs) announced by China in September 2025, reaffirm the country's commitment to accelerating the global clean energy transition, including greater deployment of renewables and electric vehicles. President Xi highlighted that 'the green transition is the trend of our time' and underscored China's role in advancing global sustainability (Volcovici et al., 2025). However, the announcement did not elaborate on how China envisions extending these goals to its overseas investments. Strengthening alignment between China's domestic climate leadership and its international energy activities would be a crucial step in reinforcing its image as a global green leader and in ensuring that its investments abroad contribute meaningfully to the global transition.

This 2025 update builds upon the findings of our previous report and provides a fourth-year assessment of China's overseas coal activity. It evaluates changes in project status since July 2024, identifies continued gaps in enforcement, and highlights risks associated with the remaining coal pipeline. It also examines signs of institutional or policy shifts, the state of renewable energy alternatives in host countries, and the extent to which China's overseas energy investments are aligning with international climate goals.

As in previous editions, the analysis is grounded in plant-level tracking of project announcements, permitting, construction, and operations. By providing a comprehensive overview of China's role in global coal power development, the report aims to support more transparent, accountable, and climate-aligned energy transitions.



Changes in plant statuses over the past four years

This year's report on China's overseas coal power plants continues to assess Chinese-backed coal power projects based on their development stage and any changes observed since the last update. The plants have been grouped into five main categories: officially cancelled, pre-permitted, permitted, under construction, and operational. In addition, a new category has been introduced this year: **mothballed**.

The mothballed category highlights a growing trend of coal plants that were previously completed but are no longer in operation. These units were often built to meet earlier energy capacity projections or to supply specific industrial users, but have since been idle. In most cases, the plants have not been decommissioned and remain technically functional. As such, they represent a latent risk, as they could be brought back online without requiring new approvals, financing, or environmental assessments.

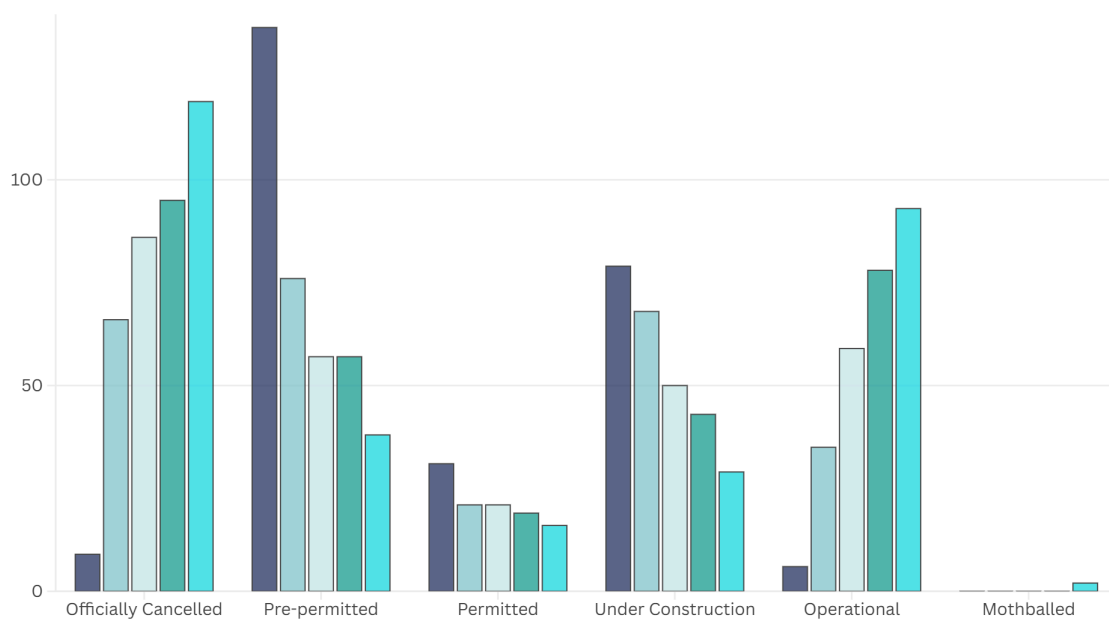
The following sections present a summary of the plants according to their statuses as of July 2025. Each section also includes a summary of the findings from the previous reports in 2022, 2023, and 2024. Notable trends, changes and differences between previous years are highlighted, including new additions, status changes, and projects that have remained stagnant.

As in previous editions, the classification of each plant is based on publicly available information, including host country planning documents, company disclosures, and third-party energy tracking databases. Particular attention has been paid to captive power projects associated with industrial parks, as these continue to fall into grey areas under the current interpretation of the pledge.

Figure 1 shows the trend in China-backed coal power units over the past four years. Figure 2 illustrates the annual shifts in the status of coal capacity between each year since the 2021 pledge, while Figure 3 shows the current status by country.

Cumulative change in status of China-backed units from 2021 to 2025

■ 2021 ■ 2022 ■ 2023 ■ 2024 ■ 2025



Source: GEM Data, CREA Analysis

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Figure 1 — Trends in China-backed overseas coal power: 2021 to 2025 Q3

Trend of Overseas China-Backed Coal Power Capacity

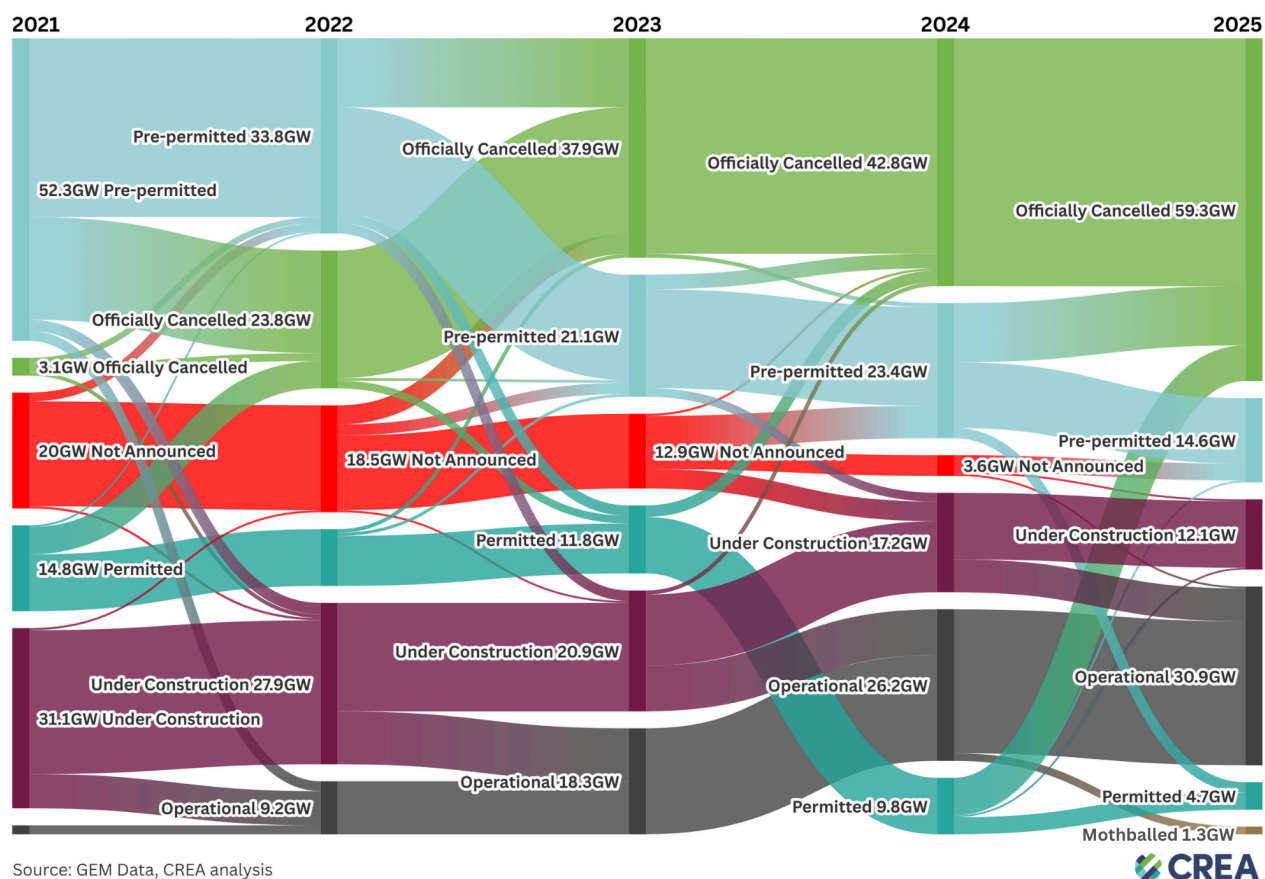
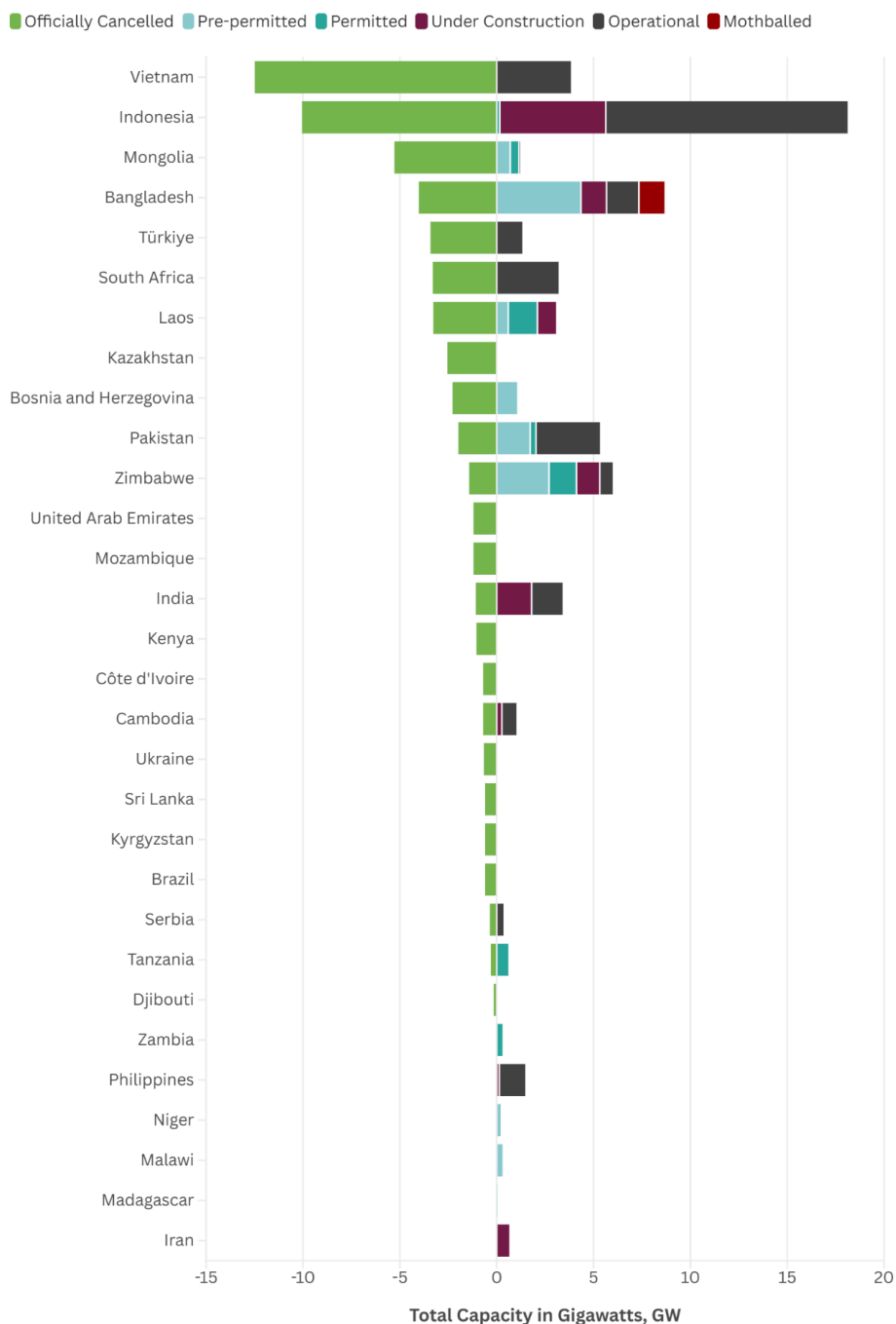


Figure 2 — Trend of overseas China-backed coal power capacity from 2021 to 2024



Current status of China-backed coal power by country



Source: Source: GEM Data, CREA Analysis



Figure 3 — Current status of Chinese-backed coal power by country

Officially cancelled

Trend of Overseas China-Backed Coal Power Capacity

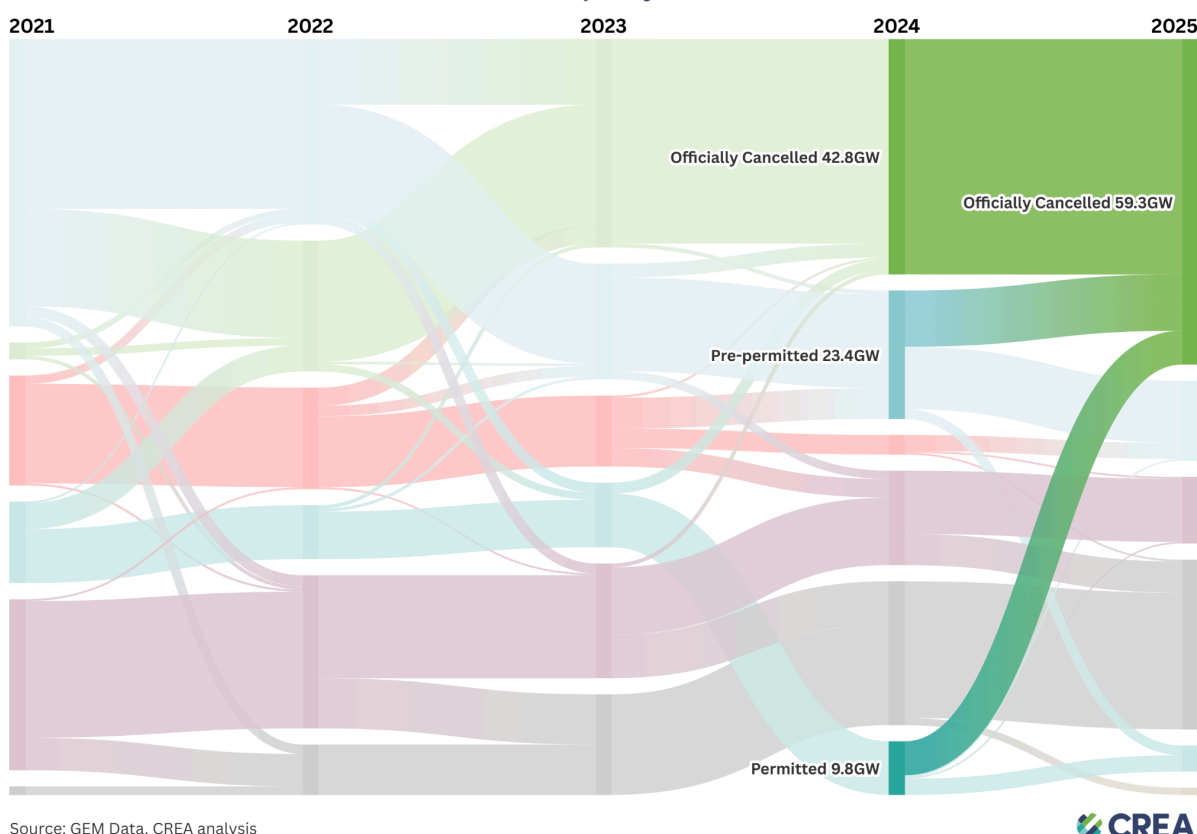


Figure 4 — Changes in officially cancelled China-backed coal capacity between 2024 and 2025

Building on the progress of the previous years, this fourth year assessment, following President Xi’s pledge of no new overseas coal power projects, reveals further cancellations of China-backed coal power projects. The rate of cancellations has accelerated in this fourth assessment year compared to the slowdown between 2023 to 2024. Figure 4 shows that while 42.8 GW of coal capacity was cancelled between the 2021 pledge and 2024, 2025 saw an additional cancellation of 24 units representing **16.4 GW** of capacity.

These newly cancelled projects were previously in the permitted or pre-permitted stages and have now been removed from the pipeline without replacement or conversion to other fossil fuel or renewable energy sources. As with previous years, the pace of



cancellations suggests that most projects still listed in the planning stages are either deeply delayed, under negotiation, or progressing under alternate arrangements.

Among the most notable changes is the cancellation of the **Orion power station** in Bangladesh (700 MW). This plant featured prominently in the 2024 report, as Chinese financing was withdrawn and the government began seeking funding from international lenders, including Cargill Financial Services, Siraj Holding, and the State Bank of India. Although Unit 2 remained in the pre-permit stage at the time of last year's publication, it has now been officially cancelled. The cancellation of Orion marks a rare but important case in Bangladesh where a major China-backed coal project has not been revived through alternative funding or conversion to fossil gas, and serves as a potentially significant shift in the country's energy planning outlook.

Other significant changes include the cancellation of multiple large-scale permitted plants. These include the **Musina-Makhado power station** in South Africa (1,320 MW), the **Kirazlıdere power complex** in Türkiye (1,600 MW), and the **Jamshoro power station (unit 6)** in Pakistan (660 MW). Each of these projects had previously reached permitting stages, and their removal from the coal pipeline marks a substantial shift in their respective national energy development trajectories. These cancellations appear to reflect a combination of changing domestic priorities, regulatory pressure, and a growing lack of commercial viability for new coal investments.

In Laos, the **Boualapha power station** (2,000 MW) has been presumed cancelled. This project had remained on the permitted list last year and was part of a broader cluster of proposed Chinese-backed coal plants in the country. Its cancellation could represent the largest single plant to be removed from the Laos pipeline to date.

In Indonesia, the uncertain status and possible cancellation of the **Xinyi Group captive power station** (2,500 MW) is particularly notable. The plant was a major addition to the pre-permitted category last year and had been classified as a captive facility, intended to serve industrial users in a glass and solar panel-related industrial park¹. Its removal may indicate growing pressure from local residents concerned about land use and around the use of captive coal to support mineral processing infrastructure, although other projects of this kind continue to progress in the country.

¹ Further information and field studies of the local area affected by the Xinyi power station are provided in Annex A.



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Additional cancellations this year include projects in Vietnam, Kazakhstan, Kyrgyzstan, Mozambique, Zimbabwe, and Brazil, all of which had appeared in previous reports as permitted or pre-permitted capacity. The full list of newly cancelled projects is shown in the appendices.

The Lamu Power Project in Kenya (1,050 MW) remains officially cancelled despite the earlier risk that it could have returned to the pipeline. In October 2025, the Environment and Land Court in Malindi upheld a 2019 ruling that revoked the project's environmental impact assessment (EIA) licence, dismissing an appeal by Amu Power Company Ltd and affirming the National Environment Tribunal's decision against the licence issued by the National Environment Management Authority (Kenyan News Agency, 2025). This outcome highlights the ongoing risk that cancelled coal projects can be revived in the absence of clear Chinese policies and financial restrictions preventing the reactivation of such projects.

Although these cancellations are a positive development, the overall pace of removal remains modest when compared to the size of the remaining pipeline. With **31.4 GW** still under development as of July 2025, and with continued activity in captive power construction, there remains a significant gap between the stated intent of the 2021 pledge and its full implementation.

A related concern is that, as coal projects are phased out, some host countries are turning to fossil gas to address near-term reliability gaps. As discussed in our 2024 report, several projects previously backed by China have been replaced or converted to fossil gas. For instance, the Botum Sakor plant in Cambodia (2 × 350 MW) was replaced by an 800 MW gas project, Bangladesh's Orion (Gazaria) Unit 2 was converted to gas, and the Hassyan Clean-Coal Project in the United Arab Emirates transitioned to gas-fired power (Nesan, 2024). These cases demonstrate that while coal cancellations reduce direct emissions, the underlying energy demand persists. Without coordinated support for renewable and storage alternatives, this shift risks substituting one fossil dependency with another and creating new forms of carbon lock-in that undermine the objectives of the 2021 overseas coal pledge.



Pre-permitted

Trend of Overseas China-Backed Coal Power Capacity

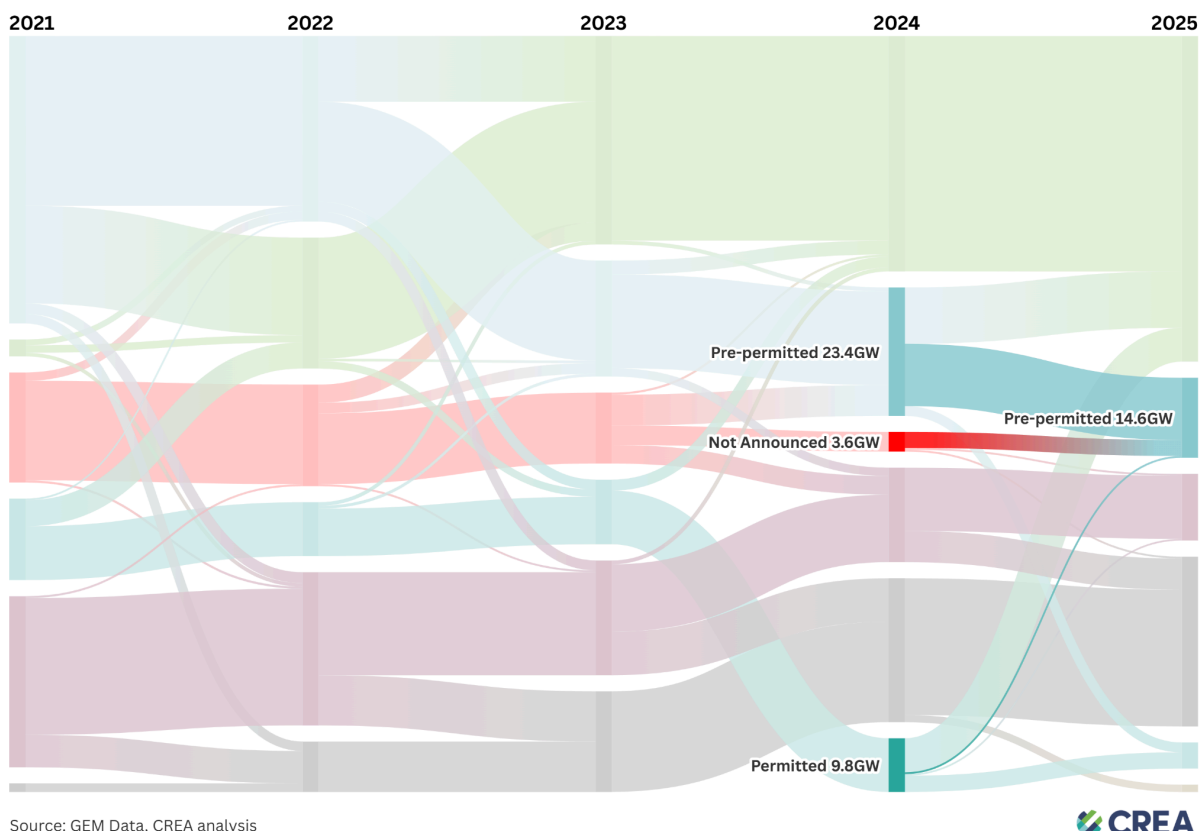


Figure 5 — Changes in pre-permitted China-backed coal capacity between 2024 and 2025

Currently, there are **14.6 GW** of Chinese-backed coal power plants in the pre-permit stage. Figure 5 shows that the pool is largely unchanged year-on-year; out of the 38 units currently in pre-permit, 34 were at the same stage last year. Coal power plants classified under the pre-permit stage are those which have appeared in corporate or governmental planning documents and are still in the process of securing financing and permits.

One notable status change occurred this year, the **Siddiqsons** power station (Thar-K) in Pakistan (330 MW) moved from permitted back to pre-permitted since the project was not officially included in the recent Indicative Generation Capacity Expansion Plan and the



developer K-Electric has expressed reluctance to move the project forward. This change contrasts with the broader pattern of lack of progress observed across most countries.

In addition to these reclassifications, three projects appear in the pre-permit list for the first time that were not announced in 2024: in Indonesia the **Hongshi Silikon** plant (2,000 MW), and in Zimbabwe the **Kalungwizi** (600 MW) and **Kwekwe** (300 MW) plants. All three of these plants are captive power, and their inclusion adds **2.9 GW** to the category. While none of these plants have reported concrete progress on permitting, all three are expected to be financed by Chinese private firms — part of a broader trend of Chinese private industry expanding its investment in both countries. Zimbabwe also saw previously unannounced additions last year, suggesting that even as China's overall overseas coal pipeline contracts, Africa remains an emerging destination for new project proposals, particularly those tied to industrial park and resource-processing developments.

The distribution by country remains similar to the 2024 report. Bangladesh continues to hold the largest concentration in pre-permit, with roughly **4.35 GW** (Barisal Unit 2 and Phulbari Sinohydro Units 1–4). Zimbabwe follows with **2.7 GW** (Hwange Units 9–10² and Sengwa Units 3–8), reflecting the removal of Gweru to the cancelled category. Pakistan now has **1.73 GW** in pre-permit, with the cancellation of Keti Bandar partly offset by the addition of Siddiqsons. In Laos, only **TSBP Sekong** (600 MW) remains in pre-permit, as Hongsa Unit 4 and Houaphanh Unit 1 were cancelled. Smaller projects in Mongolia (Baganuur and Shivee Ovoo), Malawi (Kamwamba), Madagascar (Imaloto), and Niger (Salkadamna) continue to be listed in this stage without observed advancement.

Overall, the pre-permitted category shows limited progress relative to last year. The majority of projects that were in pre-permit in 2024 continue to be so in 2025, indicating continued uncertainty around financing, permitting, and host-country decision-making.

² Further information on the status of Hwange Units 9 & 10 are provided in Annex B.



Permitted

Trend of Overseas China-Backed Coal Power Capacity

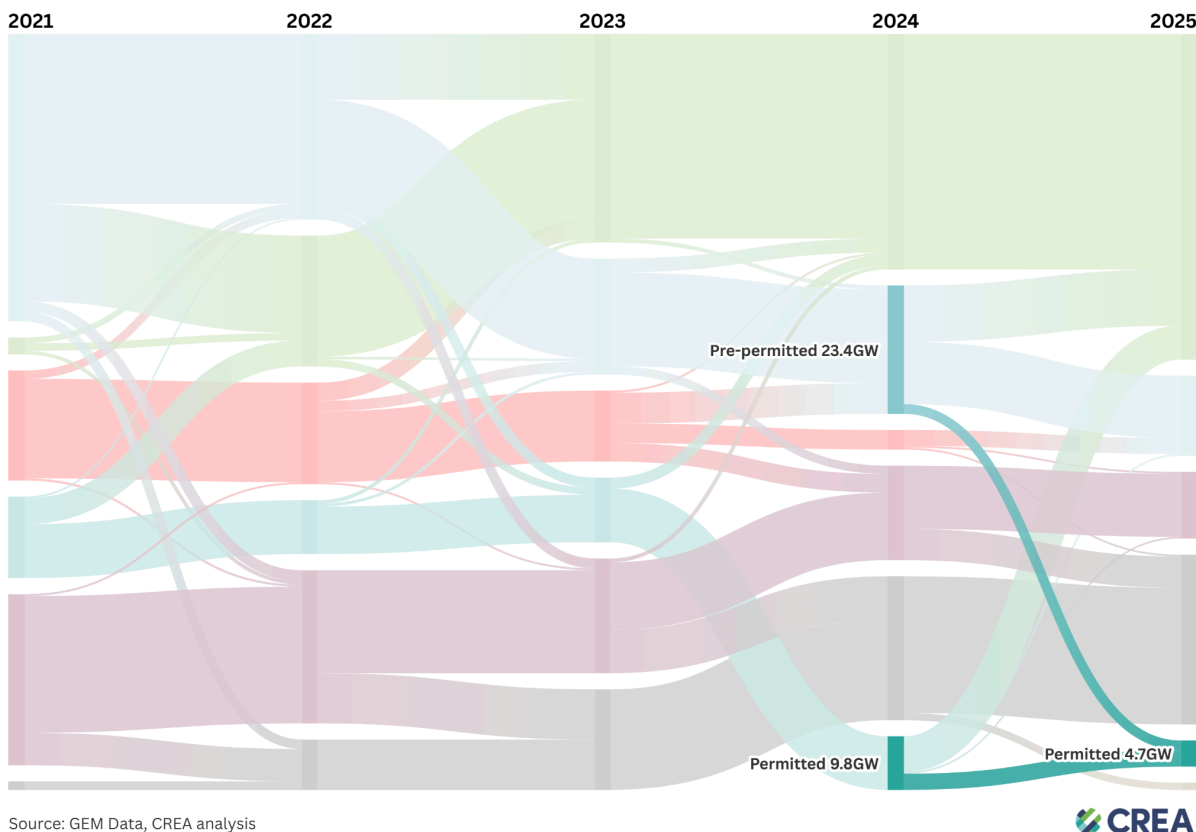


Figure 6 — Changes in permitted China-backed coal capacity between 2024 and 2025

Figure 6 shows the permitted coal fired power plants financed by China in 2025 and their statuses in 2024. As of publication of this report in Q4 2025, the permitted pipeline now totals **4.7 GW**. These projects are in the pre-construction stage and have signed permitting and/or financing contracts. As no physical infrastructure is in place yet, there remains scope to convert or cancel these plants before construction begins.

Compared to 2024, the permitted category has contracted. In 2024, the permitted pool stood at **9.8 GW**. The reduction in 2025 reflects several changes in status. Five projects that were permitted last year have been cancelled: **Pedras Altas** in Brazil (600 MW), **Boualapha** in Laos (2,000 MW), **Jamshoro (unit 6)** in Pakistan (660 MW), **Musina-Makhado** in South Africa (1,320 MW), and **Kirazlıdere** in Türkiye (1,600 MW). In addition, **Siddiqsons** in



Pakistan (330 MW) moved out of the permitted category and is now listed as pre-permitted. Offsetting part of this decline, three projects advanced from pre-permitted to permitted: **PT Tianshan Alumina** in Indonesia (160 MW), **Mchuchuma** in Tanzania (600 MW), **Mulungwa** in Zambia (300 MW), and **Titan**³ in Zimbabwe (720 MW).

The largest permitted capacity this year is in **Laos**, where **Phonesack Xekong (phase II and III)** remains the single biggest project at **1,500 MW**. **Zimbabwe** follows with **Sengwa** (unit 1 and 2) at **700 MW**⁴, and **Tanzania** with **Mchuchuma** at **600 MW**. Other permitted projects include **Tavan Tolgoi** in Mongolia (450 MW), **Gwadar** in Pakistan (300 MW), **Mulungwa** in Zambia (300 MW), and **PT Tianshan Alumina** in Indonesia (160 MW).

While the contraction of the permitted pool is a positive development, the remaining projects continue to pose a risk of lock-in if they proceed to construction. As in previous years, this stage presents a practical opportunity for governments and financiers to renegotiate toward renewable alternatives or to cancel projects outright before significant costs are incurred.

³ Local reports indicate that some site preparation has begun for the Titan plant as of September 2025. However the project officially remains in the permitted stage. Full details are provided in Annex C.

⁴ The Sengwa plant is facing financial issues and a lack of investors to proceed to the construction stage; additional information is provided in Annex D.



Under construction

Trend of Overseas China-Backed Coal Power Capacity

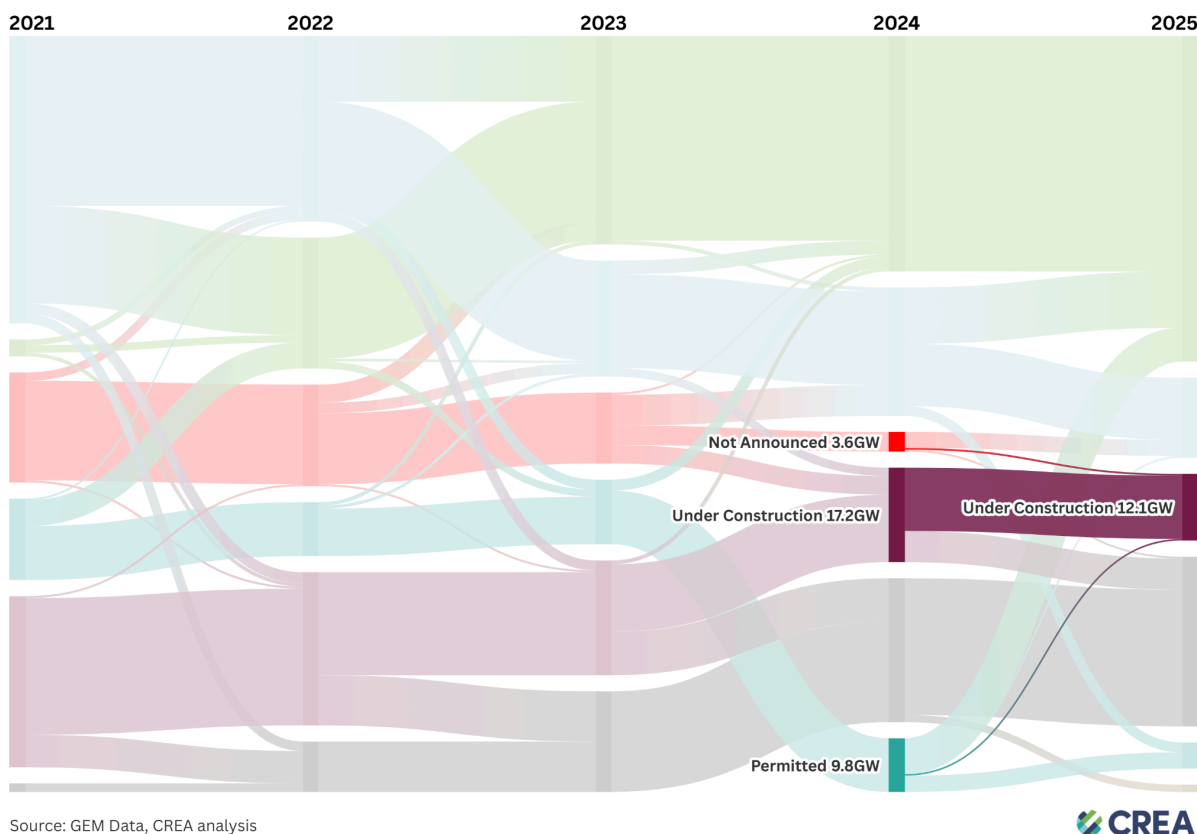


Figure 7 — Changes in under construction China-backed coal capacity between 2024 and 2025

Figure 7 shows that the under construction pipeline in 2025 totals **12.1 GW across 14 projects**. The majority of this capacity was already under construction in the previous year, with one project advancing from permitted status: **Phonesack Xekong Unit I in Laos** (300 MW), and one new project that was not announced in 2024, **Delong Nickel Phase IV** in Indonesia (330 MW). The remaining **11.5 GW** consists of projects that continued from last year.

Indonesia continues to account for the largest share of projects under construction, now totalling **about 5.8 GW** across **Banten Suralaya** (2,000 MW), **Delong Nickel Phase III** (1,350 MW), **Delong Nickel Phase IV** (330 MW), **PT Halmahera Persada Lygend** (1,140



MW), **Sumsel-1** (600 MW), and **Weda Bay** (380 MW). India remains the next largest with **KSK Mahanadi** (1,800 MW). Other ongoing projects include **Payra Phase II** (1,320 MW) in Bangladesh, **Prestige** (1,200 MW) in Zimbabwe, **Nam Phan** (660 MW) in Laos, **Tabas** (650 MW) in Iran, **Han Seng** (265 MW) in Cambodia, and **Concepcion** (135 MW) in the Philippines.

As in previous years, captive power remains a prominent feature of the under construction category. Several Indonesian projects continue to be developed to supply industrial parks and mineral-processing facilities, and the **Prestige** project in Zimbabwe is also classified as captive power. The movement of **Phonesack Xekong Unit 1** to the construction stage indicates incremental progress in Laos, while **1,500 MW** of the same project remains in the permitted stage.

Overall, the under construction category shows continuity rather than expansion. Most projects that were already underway have continued, with only two projects newly added this year.

Operational

Trend of Overseas China-Backed Coal Power Capacity

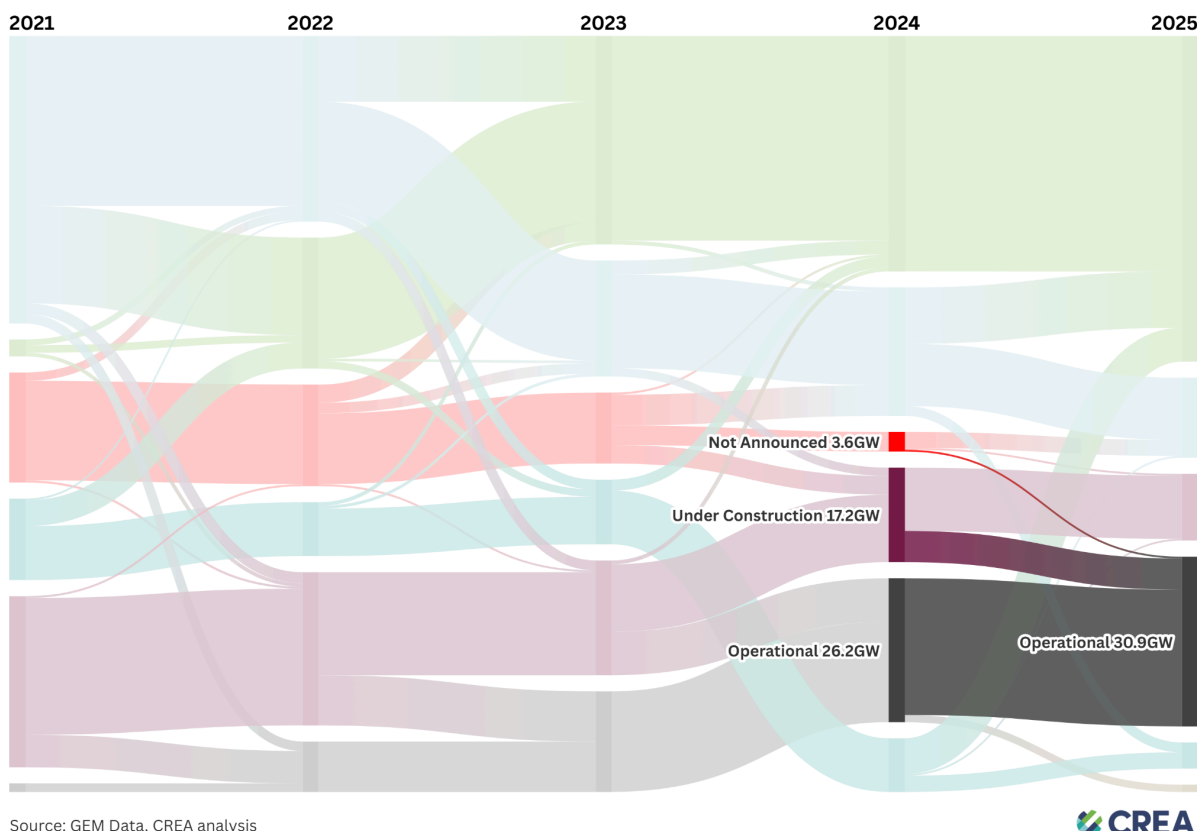


Figure 8 — Changes in overseas operational China-backed coal capacity between 2024 and 2025

Figure 8 shows that China’s overseas operational fleet continued to expand in 2025, with several plants moving from construction to operation over the past year. All of the new additions to the operational stage this year were projects that were under construction in 2024 or newly commissioned during 2025, consistent with the pattern observed over the past four years that once a plant enters the construction stage, it is unlikely to be cancelled.

New operational capacity totals about 4.1 GW, drawn largely from last year’s under-construction list. Notable additions include **Kusile power station Units 5–6** (1,600 MW), **PT Halmahera Persada Lygend Nickel Smelter power station Phase II Units 1–4**



(740 MW), **Weda Bay power station Units 12–13** (760 MW), **Sulawesi Labota power station Units 1–9** (350 MW), **Kostolac power station Phase B Unit 3** (350 MW), **Hwange power station Unit 8** (335 MW), and **Sihanoukville SEZ power station Unit 2** (50 MW). One unit, **Delong Nickel Phase IV power station Unit 3** (330 MW), moved into operation within the year, from the not-announced stage in 2024.

Indonesia again accounts for the largest share of new operational capacity, now exceeding 2.1 GW, reflecting continued progress in industrial and captive coal power linked to mineral-processing hubs.

The rest of the operational fleet remains broadly unchanged. Large projects that were already online in 2024 continue to operate, including **Patuakhali** and **Barisal**, **Adani Godda**, multiple Indonesian captive and grid plants such as **Bangko Tengah**, **Delong Nickel Phase II and III**, **Nanshan Industrial Park**, **Ketapang**, **Sulawesi Labota**, and **Weda Bay**, the Pakistan plants at **Port Qasim Lucky**, **ThalNova**, **Thar Block I**, and **Thar Energy Limited**, as well as **Dingin**, **Hunutlu**, **Duyen Hai**, **Thai Binh**, and **Van Phong**.

Captive power⁵ continues to be prominent within the set of projects reaching the operation stage, particularly in Indonesia, and is becoming increasingly prominent in Zimbabwe, with Beijing significantly increasing investments in the region. This pattern reinforces the importance of interventions before projects reach the construction stage, since the transition from construction to operation remains the dominant pathway once ground has been broken.

⁵ Additional discussion and field studies on the troubled Delong Nickel power plant in Indonesia is provided in Annex E.

Mothballed

Trend of Overseas China-Backed Coal Power Capacity

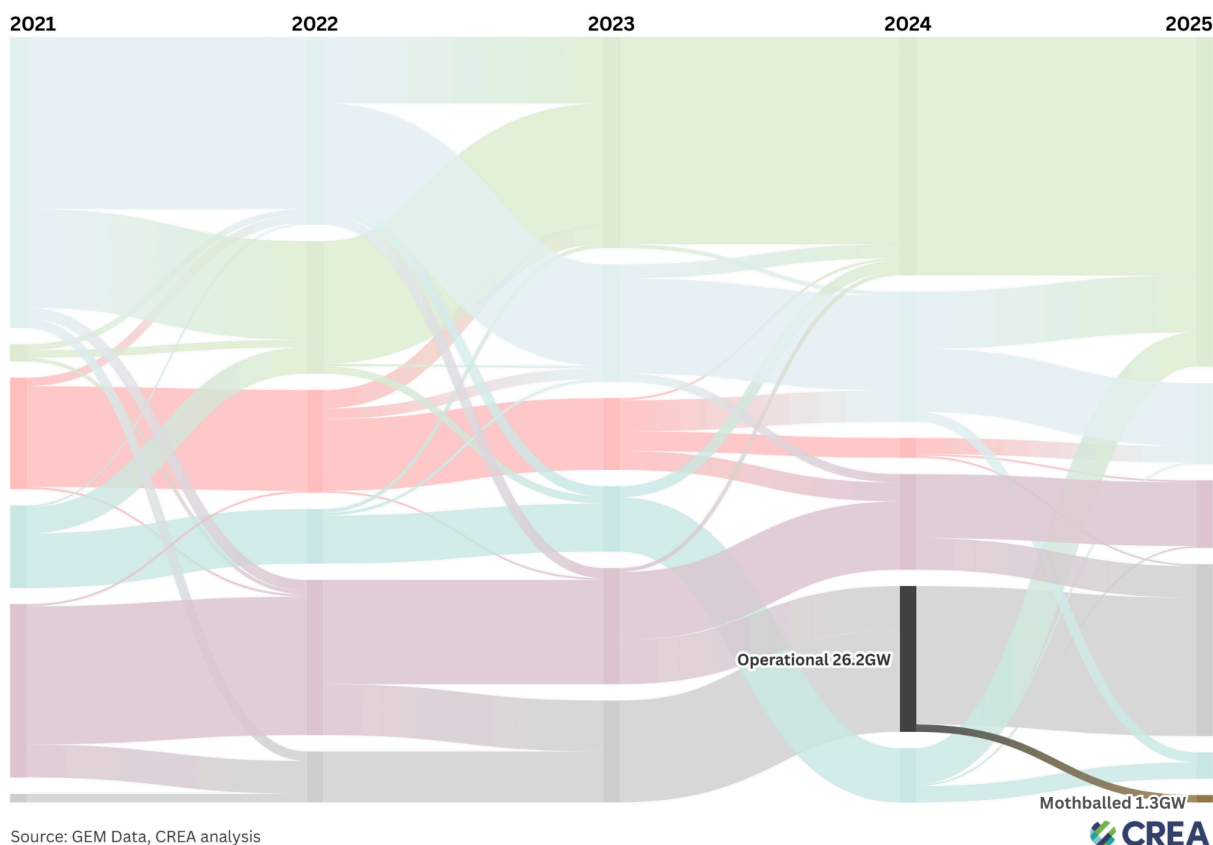


Figure 9 — New mothballed overseas China-backed coal capacity between 2024 and 2025

This year's report, 2025, introduces a new category of coal power plants: mothballed. These are plants or units that were built or advanced toward completion to meet earlier capacity needs, are not operating at present, and could be restarted with limited additional work. They have not been permanently decommissioned and therefore remain a latent risk in the pipeline.

As shown in Figure 9, there is **1.3 GW** of confirmed mothballed capacity across a single plant in Bangladesh. The Banshkhali power station (S Alam) Units 1 & 2 have been moved from operational to mothballed status, totalling 1,320 MW. The power station was shut



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down indefinitely after the owner was accused of corruption, including embezzlement and money laundering.

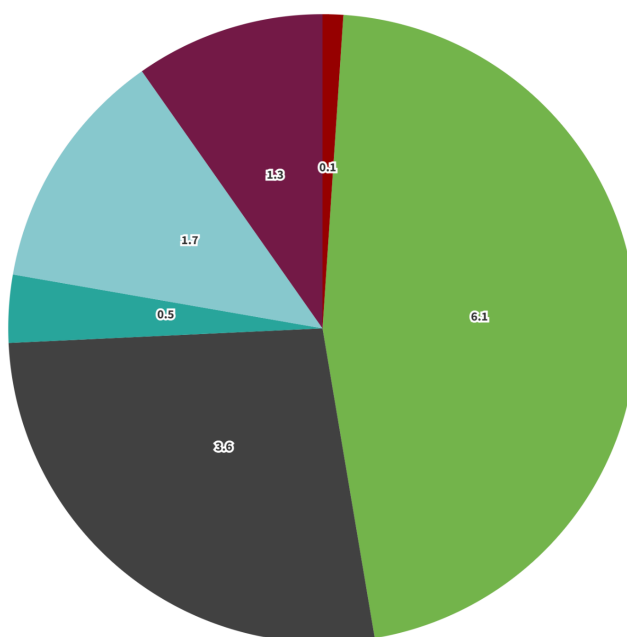
The emergence of mothballed units reinforces a pattern observed elsewhere in the pipeline: once plants move into construction or operation, they rarely exit the system entirely, even when they are no longer running. Without clear decommissioning pathways or formal retirements, these plants can return to service during periods of tight supply or policy change. The mothballed category is therefore tracked separately to reflect the distinct risk profile of units that are idle but not retired.

Climate implications

The changes in status across Chinese-backed coal power plants have important implications for emissions and, therefore, the climate. The updated dataset for 2025 shows a larger volume of cancelled capacity, a modest increase in operating capacity, and a smaller pipeline concentrated in pre-permit, permitted, and under-construction stages. Figure 10 shows the cumulative lifetime CO₂ emissions associated with each status category and Figure 11 shows the year-to-year change since the pledge.

Estimated cumulative lifetime emissions from China-backed coal, billion tonnes CO₂

- Officially Cancelled
- Operational
- Permitted
- Pre-permitted
- Under Construction
- Mothballed



Source: GEM Data, CREA Analysis

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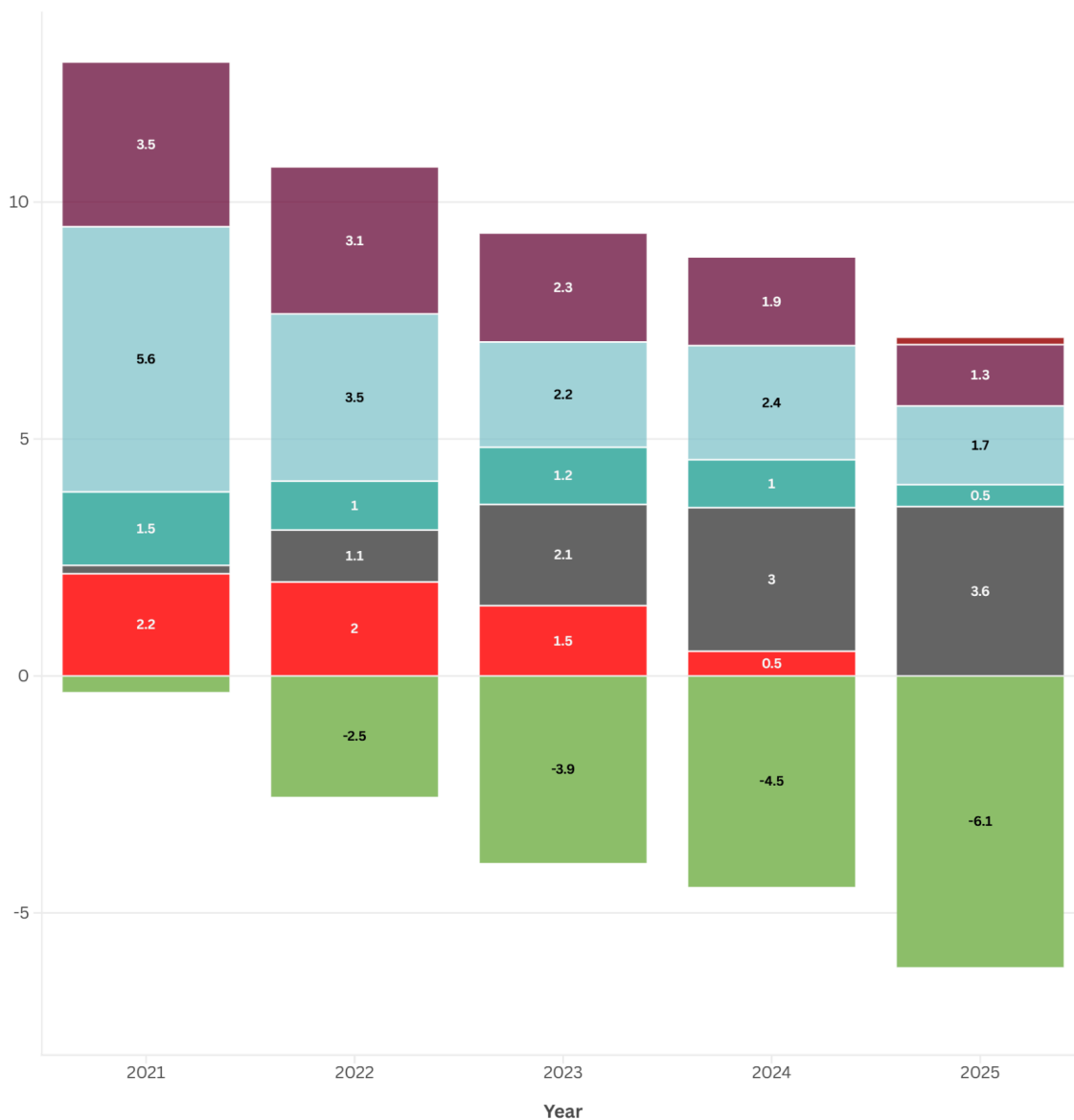
Figure 10 — Estimated cumulative lifetime emissions from overseas China-backed coal



Change in Lifetime Emissions by Year

Not Announced Officially Cancelled Operational Permitted Pre-permitted Under Construction Mothballed

Lifetime CO₂e Emissions (billion tonnes)



Source: GEM Data, CREA Analysis

Figure 11 — Yearly change in estimated cumulative lifetime emissions from overseas China-backed coal



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At a glance, **59.3 GW** of capacity has been **officially cancelled** since the pledge in 2021, avoiding an estimated **6.1 billion tonnes** of lifetime CO₂. **30.9 GW** is **operational**, committing an estimated **3.6 billion tonnes** over plant lifetimes. A further **31.4 GW** remains in the **pipeline** across the pre-permitted, permitted, and under construction stages. If these plants proceed, they would add about **3.4 billion tonnes** of lifetime CO₂. In addition, **1.3 GW** is classified as **mothballed**. If reactivated, these units would add a further **140 million tonnes** of lifetime CO₂, highlighting a latent risk that sits outside standard project pipelines.

Within the pipeline, the **pre-permitted** and **permitted** categories together account for about **2.1 billion tonnes of potential lifetime CO₂**, representing projects that have not yet advanced to physical construction. These plants remain at the stage where cancellation, conversion, or redesign is still possible. Several have stayed in the pre-permit stage since before the September 2021 pledge, with little sign of progress on financing or permitting. Their continued presence reflects a lack of formal closure rather than ongoing development. This highlights the need for a clear institutional framework within China, ideally through the appointment of a single coordinating agency, to manage implementation of the pledge and support structured renegotiations with host countries. Establishing a transparent timeline for final decisions on these long-stalled projects would help bring policy alignment between China's overseas commitments and its domestic energy transition goals.

Captive coal power has also emerged as a major contributor to post-pledge emissions. Since September 2021, operational captive coal plants account for an estimated **1.5 billion tonnes** of lifetime CO₂, equivalent to almost half of all emissions from operating overseas Chinese-backed coal capacity. These projects, which primarily serve industrial and mineral-processing facilities, show how coal use is being allocated away from grid-linked power to captive industrial supply. While **1.1 billion tonnes** of lifetime CO₂ have been averted from cancellations since the pledge, a further **1 billion tonnes** remain in the pipeline across the pre-permitted, permitted, and under-construction stages just from captive power. This continuing expansion of industrial coal risks undermining the intent of the 2021 pledge unless clear criteria are applied to captive power and consistent oversight ensures that industrial projects are subject to the same scrutiny as grid-connected plants.

Taken together, the composition of avoided, committed, and at-risk emissions reinforces a pattern seen throughout the past four years. Reductions are driven by cancellations at earlier stages, while projects that advance to construction tend to proceed to operation.



The addition of a mothballed category captures a separate source of risk, since idle units can return to service without entering the standard planning or permitting pipeline.

Health and economic impacts

While China's overseas coal engagement is often discussed in terms of capacity, finance, and technology transfer, its implications for public health and local economies are equally significant. Coal power is a major source of air pollution, releasing fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and nitrogen oxides (NO_x) that harm human health and the economy. Evidence from CREA's health impact assessments in countries hosting China-backed energy projects underscores the broader societal costs of continued coal dependence. These findings highlight the importance of aligning China's overseas energy investments with its global commitments on health, development, and climate.

In Indonesia alone, emissions from existing coal-fired power plants were responsible for approximately 10,500 deaths annually and USD 7.4 billion in health costs in 2022, according to CREA's joint assessment with the Institute for Essential Services Reform (IESR). Under current policies, these figures could rise to 16,600 deaths per year and USD 11.8 billion in annual health costs by 2030. A faster coal phase-out by 2040 would prevent 182,000 cumulative deaths and save USD 130 billion in avoided health costs, equivalent to IDR 1.9 quadrillion, from 2024 until the end-of-life of all plants. Beyond this, captive coal power plants were found to be responsible for one-fifth of all health impacts of coal-fired plants in Indonesia. Excluding them from the 2040 coal phase-out policy could cause an additional health burden of 27,000 air pollution deaths and health costs of USD 20 billion, highlighting its significance in Indonesia's energy transition agenda (Myllyvirta et al., 2023).

Similarly, CREA's Bangladesh assessment found that exposure to ambient PM_{2.5} pollution causes around 102,456 deaths each year, alongside 263 million lost workdays, 900,485 preterm births, and 696,389 low-birth-weight births. Meeting the WHO 2021 guideline of 5 µg/m³ could reduce mortality by 79%, saving over 81,000 lives annually, and avoiding 262 million sick leave days, demonstrating the immense economic and social co-benefits of cleaner air (Nesan et al., 2025).

These findings highlight the health and productivity gains of cutting coal emissions. CREA's studies in the Delhi-NCR and Maharashtra's Chandrapur region reinforce this link, showing that unabated coal generation contributes to economic losses and widespread health



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impacts, including severe respiratory illness, premature deaths and pre-term births, and extends hundreds of kilometres due to the transboundary nature of pollution (Dahiya et al., 2022; Myllyvirta et al., 2021).

Beyond grid-connected coal power, industrial expansion powered by captive coal plants is also worsening air quality. In Indonesia's nickel processing hubs located in Central Sulawesi, Southeast Sulawesi, and North Maluku, CREA and the Center of Economic and Law Studies (CELIOS) estimated in a 2024 report that the nickel smelting and processing activities, powered by captive coal power, could cause up to 3,800 deaths annually by 2025, rising to 5,000 deaths by 2030, with an annual economic burden of USD 2.6 billion in 2025 and USD 3.4 billion by 2030. Without stronger emission controls, cumulative losses could reach USD 38 billion and 55,600 deaths by 2060 (Myllyvirta et al., 2024).

A growing number of new, privately financed captive coal projects — primarily in Indonesia's industrial parks and often owned, constructed, or operated by Chinese companies — is directly fueling the surge in regional air pollution. With Chinese stakeholders controlling more than 75% of Indonesia's nickel refining capacity, these coal plants, built to power resource-intensive processes like nickel smelting for the global electric vehicle supply chain, are major sources of health-harming pollutants and toxic heavy metals (C4ADS, 2025).

The continued development of China-backed coal projects, including captive plants serving industrial zones, would worsen the pollution burden by increasing emissions of harmful pollutants and deepening long-term health and economic losses. Together, CREA's findings show that these projects could lock host countries into decades of elevated mortality, healthcare costs, and productivity losses. Conversely, cancelling or retiring such plants and redirecting investments toward clean energy would deliver measurable gains in public health and economic resilience, reinforcing China's stated vision of building a truly 'Green Belt and Road'.



Conclusion

As the world continues to navigate the energy transition, China's role remains pivotal. This report provides an updated assessment of the overseas coal pledge and its implementation across project stages and countries as of 2025.

The composition of the pipeline has shifted substantially since the pledge in 2021. The permitted pool has declined to 4.7 GW, while 15.6 GW remains in the pre-permitted stage and 12.1 GW is under construction. Projects that advance to construction continue to move almost inevitably into operation, reinforcing the need for early intervention before ground is broken. The addition of a mothballed category highlights a potentially growing set of idle but intact plants that could return to service without entering the formal permitting process.

Overall, implementation of the pledge has reduced the overseas coal pipeline and prevented billions of tonnes of future emissions. Yet critical gaps remain. Progress now depends on closing the captive power loophole, converting or cancelling projects that remain in the pre-permitted and permitted stages, and establishing clear pathways for the permanent retirement of mothballed and ageing units. Equally important is the need for coordinated governance. Despite major progress, China has not yet established an early retirement mechanism and appointed a lead government agency to oversee implementation of the pledge and to support structured renegotiations with host countries.

China's growing engagement in international climate initiatives, including the Just Transition Summit in April 2025 (Ministry of Foreign Affairs of China, 2025a), the commitments under the Shanghai Cooperation Organisation (Daily CPEC, 2025), and the release of its new Nationally Determined Contribution earlier this year (Civil, 2025; Myllyvirta, 2025), underscores its position as a global leader in the energy transition. Aligning overseas investments with these milestones would demonstrate that China's climate leadership extends beyond its borders and reflects the principles of fairness, shared responsibility, and sustainable development on a global scale. Taken together, these steps would consolidate the gains achieved so far, reduce the risks associated with the remaining coal pipeline, and ensure that China's overseas energy engagement is consistent with its domestic transition goals while supporting host countries in securing reliable, renewable, and affordable power.



Recommendations

Address the captive power loophole. Captive coal plants in industrial parks continue to obscure the interpretation of President Xi's 2021 pledge and make up a large share of new and ongoing projects. The pledge should explicitly cover captive coal. Approvals and financing should require renewable or hybrid alternatives, best available technology (BAT), environmental standards, and time-bound retirement plans. Given the rapid spread of captive coal from Southeast Asia to Africa, especially Zimbabwe and Zambia, the same accountability standards should apply to private Chinese companies that develop these projects. The combustion of coal and its subsequent climate impacts are the same regardless of where or how it is used.

Lock in conversions at the permitted stage. The permitted pool, now around 4.7 GW, creates a critical window for conversion or cancellation before construction begins. Financiers and host governments should prioritise renegotiation toward renewable energy at this stage and adopt clear criteria that rule out new fossil alternatives. Since many permitted projects have shown no recent progress, China should encourage their closure or redesign to renewable power supply.

Prevent backsliding from cancelled to pipeline. The movement of projects such as Barisal Unit 2 in 2024 from cancelled to pre-permitted highlights the need for clear closure. China and host governments should commit to a no-revival principle for cancelled coal projects, maintain a shared public registry of project status decisions, and align permitting rules to prevent re-entry into the pipeline. This principle should also apply to captive coal projects that may otherwise reappear under industrial or private funding arrangements.

Create a mothball-to-retirement pathway. The new **mothballed** category highlights units that are idle rather than retired. These plants should be placed on formal retirement schedules with dedicated decommissioning plans, repurposing options, and financial support where appropriate. Clear rules should limit restarts to emergency circumstances and require disclosure, justification, and mitigation if a restart is sought.

Co-design pathways for early retirement and repurposing. China can play a catalytic role in co-designing and supporting pathways for the early retirement or repurposing of coal power assets in partnership with host countries. For projects already in operation or close to commissioning, co-operation should prioritise plans that enable an accelerated and just transition. This includes: early retirement, repowering with renewables, grid



integration, storage, and site repurposing. Through its leadership in renewable manufacturing, grid technology and clean energy financing, China can help partner countries develop technical and financial packages that make early phaseout more feasible while ensuring energy security in host countries.

Prioritise renewable energy investments. Redirect overseas financing toward solar, wind, hydro, storage, and grid modernisation. In host countries with large pre-permit pools, targeted support for project preparation, land and transmission access, and power market reforms can accelerate renewable pipelines and reduce coal dependence. Industrial parks that would otherwise rely on captive coal should be guided and supported to adopt clean power systems.

Support host country transition strategies. Many host countries face structural barriers to moving away from coal. China and international partners should expand technical and financial assistance for national transition plans, including grid upgrades, storage, flexible generation, and demand-side efficiency. Cooperation with local authorities can help ensure that the shift away from coal also supports economic resilience and local employment.

Avoid gas lock-in. Shifting from coal to fossil gas risks prolonging carbon dependency. Where reliability concerns are cited, support should prioritise non-fossil flexibility options such as storage, demand response, and grid reinforcement rather than new long-lived gas infrastructure.

Strengthen transparency and accountability. Require plant-level disclosure for all overseas power engagements, including captive projects. Publicly report status changes, financing arrangements, environmental approvals, and construction milestones on a regular schedule. Stronger disclosure reduces the likelihood of unannounced movement from planning into construction, and supports accountability to the pledge.

Assign a dedicated coordinating agency. Since the September 2021 pledge, China has yet to designate a government body responsible for its implementation. As such, China's current overseas energy investments and projects by state-owned enterprises are monitored and governed by multiple ministries and sometimes local governments. As China is expecting to take up a stronger climate leadership role, a dedicated agency should be set up, whose top concern is China's global green leadership impact, and which has been granted strong coordinator roles and regulator responsibilities to support businesses



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to initiate or lead renegotiations or to intervene and call off irresponsible or illegal operations when necessary.

Promote zero-carbon industrial parks overseas. China's recent domestic progress in developing zero-carbon industrial parks provides a model for decarbonisation of overseas operations. The same policies, technologies, and management standards should be extended to Chinese-invested industrial parks abroad to ensure that the brand 'Made in China' aligns with the country's broader green development vision.

Considered together, these recommendations outline how China should translate its overseas coal pledge into concrete green transition strategies. The objective is not only to close the remaining gaps in implementation but to ensure that China's overseas energy engagement reflects the same ambition driving its domestic transition. By addressing the loophole of captive coal, developing pathways for renewable energy transition, and supporting host countries in building resilient energy systems, China can move from the phase of withdrawal to one of proactive leadership, helping to shape a more just and sustainable energy future across partner countries.



Methodology

In this report, only the Scope 1 direct CO₂ emissions associated with coal combustion for power generation were estimated. For each coal plant unit, carbon dioxide emissions were calculated using a modified version of the Global Energy Monitor (GEM) methodology, which considers the following information:

- Unit capacity in megawatts (MW).
- Emission factor (kilograms of carbon dioxide produced per gigawatt hours) for each type of coal.
- Heat rate as a measurement of how well a plant performs the task of converting coal into electricity.
- Capacity factor based on the actual utilisation rate of coal plants in each country in 2022.
- An operating life of new coal plants assumed to be until 2050, in line with recommendations for coal phase-out in developing countries by the IEA and IPCC. If the start year for plants that are in the approval stage was not available in the GEM database, 2025 was assumed to be the start date.

Except for the capacity factor and years of operation, individual plant information was obtained from the Global Coal Plant Tracker database (Global Energy Monitor, 2025). Further details can be found at Estimating Carbon Dioxide Emissions from Coal Plants on GEM.wiki (Global Energy Monitor, n.d.).

Information regarding the financial involvement of Chinese banks and EPCs was determined using a combination of the following sources:

- China Global Power Database (Boston University Global Development Policy Center, 2022)
- AidData's Geospatial Global Chinese Development Finance Dataset (Goodman et al., 2024)
- Global Coal Project Finance Tracker (Global Energy Monitor, 2025)



Annex — Field studies

A. Xinyi group captive power: Postponed indefinitely

In late July 2023, while Indonesian President Joko Widodo was making a state visit to China, Indonesian Minister of Investment Bahlil Lahadalia told media that a memorandum of understanding (MoU) had been signed between Indonesia and Chinese glass maker giant Xinyi Glass Holdings Ltd on an investment package of USD 11.5 billion to build a quartz sand processing plant in Rempang Island, Indonesia (Imaniah, 2023).

In early October 2023, Minister Bahlil Lahadalia revealed an initial plan of a USD 2.5 billion investment as part of the whole package by Xinyi to build a 2.5 GW coal- and gas-fired power station to supply electricity to its nine factories, whose products would include glass and solar panels (Arief, 2023)

For the previous two decades already, tension had been building between communities in Rempang and the Batam Business Agency (BP Batam), a central government agency that had been promoting the Rempang Eco City project as ‘Indonesia's new economic engine’, aiming to transform Rempang into an integrated industrial, trade, residential, and tourism hub (Lubis, 2023).

The recently proposed Xinyi project triggered a new wave of protests by local communities who had been earmarked for relocation and voiced strong concerns over environmental pollution and health hazards.

Less than one month later, Minister Bahlil Lahadalia described the project as ‘postponed’, due to the need to relocate 961 households (Zona Satu News, 2023) .

Throughout 2024, protests and demonstrations continued and expanded, even from Rempang to Jakarta, in front of Indonesian ministries, as well as the Chinese Embassy.

In a February 2025 statement on the Business & Human Rights Resource Centre, Xinyi Group denied involvement in the Rempang Eco City project, stating it had not made any related agreements. In the letter, Xinyi also stated it has not agreed to or decided on building a power plant or what method of power generation to use, and has not reached

any agreements or contracts. There are no coal-fired power plants or solar projects in Batam that are under our application, being reviewed, or already approved’ (Business & Human Rights Resource Centre, 2024).



Figure 12 — Banners reading ‘Reject Rempang Eco City’ hang at the Dapur 6 Intersection, the access point to villages

A field study in October 2025 to Rempang found that the area is still being developed using government funds. The team documented houses displaying banners stating, ‘we refuse to be relocated/displaced’. A few houses have been demolished after owners chose to move to relocation housing in Tanjung Banun. There is no visible sign of Xinyi in Rempang.

"The Indonesian government still continues to push for producing solar panels in Rempang, Batam," said Bhima Yudhistira Adhinegara, Executive Director of Celios Center of Economic and Law Studies.

"There are indications that in 2025, the Indonesian Ministry of Public Works will continue to relocate 36.77 hectares of residential areas in the Tanjung Banun area, worth IDR 164.78 billion. The ongoing forced relocation of residents in Rempang is related to the ASEAN power grid integration project. The MoU between the Indonesian state-owned electricity company PT PLN and Singapore includes a commitment to export 3.4 GW of electricity.

Rempang is also selected as a source of raw materials for solar panel glass. Going forward, the Indonesian government is still seeking new investors in Rempang. It is highly possible that Chinese companies will collaborate with Singapore to continue the solar panel installation and manufacturing project in Rempang.”



B. Hwange unit 9 and unit 10: Stalled physically

The ambition to expand Hwange, already the largest thermal power station in Zimbabwe by adding two more units, namely 9 and 10, to its existing fleet underscored the country's anxiety over power cuts, especially when droughts threatened hydro power productivity (Axis, 2024).

During a trip in January 2024 to China to look for energy investment, Zimbabwe Energy and Power Development Minister Edgar Moyo and Zesa Holdings were introduced to Shandong Dingneng New Energy Company, who expressed interest in investing in Zimbabwe. Two months later, Shandong Dingneng, led by its president Lining Liu, visited Zimbabwe for a feasibility study of the construction of Unit 9 and Unit 10 in Hwange (Mutuvaviri, 2024).

In July 2024, the Zimbabwe government said preparatory work had started for the construction of the units, while Shandong Dingneng stayed silent until September 2024, when a new deal was announced about its involvement in a 100 MW wind power project in Chiwu and a 100 MW photovoltaic power project in Selous in Zimbabwe (Seetao, 2024).

A field trip by a local consultant of PACS to the Unit 9 and Unit 10 site in Hwange revealed that it was still left unprepared and untouched. There is no publicly available plan yet regarding how and when these two units could be brought back again, but local communities are highly concerned about worsening water scarcity and air pollution.

In the midst of energy shortages and a lack of financial support, the Zimbabwean government has prioritised the refurbishment of 920 MW of facilities, namely Units 1 to 6, which were built in the 1980s, and Unit 7 and 8, with a total capacity of 600 MW, which were completed in 2023 (Global Energy Monitor, 2025).

A deal worth USD 455 million was reached and signed between Zimbabwe and India's Jindal Steel for the refurbishment project, which will last at least four years (Reuters, 2025).

'It is hard to find financial support for coal projects now without China. Before this refurbishment is over, the government will have to look elsewhere for (financial support for) Unit 9 and Unit 10', an official of the Ministry of Energy and Power Development told the PACS consultant.



C. Titan Power: Signs of early construction

The Titan Power Project, also known as Beifa Power Station or Dinde Power Station, is a planned 720 MW coal-fired power plant in Hwange District, Matabeleland North, Zimbabwe. The project is a joint venture between Titan New Energy (Pvt) Ltd and ZESA Holdings Ltd (Global Energy Monitor, 2025).

Initial exploration by Beifa Investments (Pvt) Ltd began in 2019, with the Zimbabwe Energy Regulatory Authority (ZERA) granting a 270 MW generation licence in 2021. The licence was amended in February 2024 to expand capacity to 720 MW.

Available public records identify Huaxi Energy Group, and mining company Jin'an (Jin An) Group as key backers. Huaxi, also known as China Western Power Industrial Co., Ltd., a Shenzhen-listed boiler maker from Sichuan Province, China, would serve as engineering, procurement, and construction (EPC) lead. Jin'an Group, a local ferrochrome smelting company founded and funded by another independent investor from Sichuan, has a metallurgical coal processing facility neighbouring the Titan power project site (Pindula News, 2024).

Titan's plan included the 720 MW waste-to-energy power plant and a 200 MW solar farm, with a total investment of USD 1 billion, which were expected to be operational by the end of 2028. The 'waste' referred to low-grade or waste coal from the Beifa Mine, according to Titan and Jin'an Group. Reports also suggested Titan would act as a captive power plant to support ferrochrome or smelting operations rather than a full grid supplier (Zimbabwe Situation, 2024).

A groundbreaking ceremony took place on 3 December 2024, officiated by President Emmerson Dambudzo Mnangagwa, who described Titan as central to 'Zimbabwe's industrialisation and energy sovereignty agenda'. Huaxi Chairman Renchao Li attended the ceremony as the main Titan investor and contractor of the project (Zimbabwe Situation, 2024).

In April 2025, speaking at the Zimbabwe International Trade Fair in Bulawayo, Chinese Ambassador Zhou Ding reaffirmed China's strong commitment to supporting Zimbabwe's industrialisation and sustainable development agenda, highlighting projects such as Titan as key examples of China's approach of 'people-centered industrialisation' (Business Daily, 2025).

Despite this diplomatic endorsement, no Chinese state bank or export credit agency has disclosed participation or financing. Huaxi's annual reports from 2000 to 2024 showed a total deficit of CNY 2.5 billion (USD 350 million) (Huaxi Holdings Company Limited, 2024).



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In May 2025, Huaxi announced that its controlling shareholder and actual controller, Li Renchao, had been detained and a case had been filed against him. The detainment was listed in September 2025 (电鳗快报, 2025). In October 2025, Huaxi announced that the company received a ‘disposition decision’ issued by the Shenzhen Stock Exchange over a violation of relevant regulations (Zhitongcaijing, 2024; 华夏能源网, 2025). The Shenzhen Stock Exchange decided to punish the company and chairman Li Renchao, financial director Meng Haitao, and then-president Mao Jihong.

A field study of the Titan project site in late September 2025 by a PACS consultant revealed that only basic groundwork had occurred, including site clearance, boundary pegging, and borehole drilling. The site remained unfenced. Local elected leaders, councillors from neighbouring villages Ward 14 (Ngumija/Raylton townships) and Ward 3 (Ingagula township), confirmed that they were neither consulted nor provided with a copy of the project’s environmental and social impact assessment (ESIA).



Figure 13a and 13b — Land cleared on site of Titan Power Project, Hwange District, Matabeleland North, Zimbabwe; 22 September 2025



Figure 14 — Villagers and their herds from neighbouring village Ward 14 in Ngumija township passing the planned gate of the Titan power project, Hwange District, Matabeleland North, Zimbabwe; 22 September 2025



D. Sengwa power station: No funds to proceed

A visit in late September 2025 to the proposed site for the Sengwa Power Station in Zimbabwe revealed that hardly any physical construction has been made. According to local authorities, the project development has largely stalled because of lack of financing, although feasibility studies, permitting process, and preliminary investor engagement for some units have all been completed (Chronicle Editor, 2024). Potential financiers that had been engaged included Industrial and Commercial Bank of China (ICBC), which, however, withdrew due to environmental concerns (Lo, 2021). Other financiers remain hesitant without sovereign guarantees given Zimbabwe's debt profile and the current economic instability (Gerede, 2021).

Civil society groups have also raised concerns about potential environmental impacts such as air pollution, water use, community displacement, and climate change concerns, given Zimbabwe's NDC moving towards reduction of emissions (The China-Global South Project, 2021).

Speaking to a local consultant of PACS, an official in the Ministry of Energy and Power Development reiterated the government's confidence in finding investors. The project remains central to government ambitions to expand domestic generation capacity and reduce reliance on imports, said the official.

E. Captive coal

Captive coal plants are off-grid projects used for industrial purposes (Parapat & Hasan, 2023). The construction of these off-grid coal-fired power plants continues unabated to meet the electricity needs of the nickel processing industry in the Indonesian province of Central Sulawesi.

According to data from local NGO, WALHI Central Sulawesi, around 40 captive coal plants are currently operating in Central Sulawesi, mainly concentrated in the three districts of: Morowali, North Morowali, and Bungku. Their ownership is dominated by Chinese companies, including the DeLong Group (tanah.air, 2025).

The highest concentration of captive coal plants is in Morowali. At least 20 units with a total generating capacity of 2,970 MW are now operating to meet the needs of Indonesia Morowali Industrial Park (IMIP), with another 16 units (2,600 MW) currently under reconstruction .

'We see a surge in coal plant usage in IMIP. If we total the plants currently under



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reconstruction, the capacity will reach 5,000 MW', said Wandu, a campaigner at WALHI Central Sulawesi.

This industrial landscape is shaped by volatile corporate fortunes. The story of PT Delong Nickel Indonesia (DNI), a flagship smelter within IMIP, serves as a cautionary tale. The company accumulated massive debts, estimated at over USD 1.3 billion, leading to a bankruptcy administration process (China Labor Watch, 2025; Nangoy, 2024).

In a debt-to-equity swap, a consortium of creditors, including China Shuifa Singye Energy, took control of the company. The original owners lost their stakes. The DNI smelter has now resumed operations, but its primary goal is to run the plant profitably to service the outstanding debt (Max Hall, 2019; Stanton, 2021).

In stark contrast, DNI's subsidiary, Gunbuster Nickel Industry (GNI), has not only survived but is expanding. Established as a separate entity with a focus on the electric vehicle (EV) battery supply chain, GNI was insulated from its parent company's direct bankruptcy. GNI is actively operating in IMIP and is leading a major new project outside of Morowali, building a new industrial park and smelter complex in Konawe Regency, Southeast Sulawesi. This new park signifies GNI's strength and a strategic pivot towards the high-growth EV battery market (Research and Markets, 2024).

However, this corporate restructuring has left significant infrastructure in limbo. The dedicated 2160 MW Delong Nickel Phase III coal plant in IMIP is a casualty. While likely mechanically complete, its operation is stalled. Funding from the parent company, Tsingshan, has frozen, and the demand from the smelters it was built to power has collapsed due to the corporate crisis. The plant is now potentially a stranded asset with an uncertain future (Denise Jia & Lu Yutong, 2024).



Figure 15 — Coal plant for nickel smelting, a joint venture of Jiangsu Delong Nickel Industry (currently in Administration), and Dexin Steel Indonesia (PTDSI), in Indonesia Morowali Industrial Park (IMIP); photo and text by Nursadah K, 6 October 2025



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Appendix

A. List of plants by status

Officially cancelled

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Bangladesh	Orion power station	700	2.7	64.8
	Patuakhali power station (RPCL/NORINCO) Phase II Units 1 & 2	1320	5.4	102.6
	Phulbari power station (China Gezhouba) Phase II Units 1 & 2	2000	7.8	195.0
Bosnia and Herzegovina	Banovici power station	350	1.6	40.0
	Kakanj Thermal Power Plant Units 8 & 9	600	2.8	64.4
	Kamengrad Thermal Power Plant Units 1 & 2	430	2.2	55.0
	Tuzla Thermal Power Plant Units 7 & 8	900	3.8	102.6
Brazil	Pedras Altas power station Units 1 & 2	600	2.6	62.4
Cambodia	Botum Sakor power station Units 1 & 2	700	3.2	80.0
Côte d'Ivoire	San Pedro Port power station Units 1 & 2	700	3.0	78.0
Djibouti	Djibouti power station Units 1-3	150	0.6	15.0
India	JSW Barmer Jalipa Kapurdi power station Units 9 & 10	1080	4.4	110.0
Indonesia	Banyuasin power station Units 1 and 2	240	1.2	34.8
	Delong Nickel Phase II power station Unit 11*	380	1.7	42.5
	Jambi-2 power station Units 1 & 2	700	3.2	76.8
	Jawa-5 power station Unit 1	1000	4.0	108.0
	Nanshan Industrial Park power station Phase II Units 1-6, Phase III Units 1-4 and Phase IV Units 1-8*	2700	12.6	365.4
	Qingdao Zhongsheng captive power station Units	260	1.2	30.0



	3-6*			
	Riau-1 power station Units 1 & 2	600	2.8	61.6
	Sumsel-5 power station Unit 3	350	1.6	43.2
	Tanjung Jati A power station Unit 1 & 2	1320	5.4	132.3
	Xinyi Group captive power station*	2500	10.1	253.2
Kazakhstan	Ekibastuz-2 power station Units 3-6	2544	10.0	222.5
Kenya	Lamu Power Project Unit 1-3	1050	4.5	112.5
Kyrgyzstan	Kara-Keche power station	600	2.6	63.9
Laos	Boualapha power station Unit 1 & 2	2000	7.8	202.8
	Hongsa power station Unit 4	626	2.7	67.5
	Houaphanh power station Unit 1 & Unit 2	650	2.9	70.9
Mongolia	Shivee Ovoo power station Proposal 1	5280	21.4	535.0
Mozambique	Nacala power station	200	1.0	28.0
	Ncondezi power station Unit 1 & 2	300	1.4	35.0
	Tete power station Unit 1 & 2	700	3.2	80.0
Pakistan	Jamshoro power station Unit 6	660	2.7	56.7
	Keti Bandar power station Unit 1 & 2	1320	5.6	140.0
Serbia	Kolubara B power station Unit 1	350	1.6	41.6
South Africa	Musina-Makhado power station Other capacity & reduced capacity*	3300	13.2	330.0
Sri Lanka	Lakvijaya Power Plant Unit 4 and 5	600	2.8	68.6
Tanzania	Mbeya Coal to Power Project	300	1.4	35.0
Türkiye	HEMA Amasra power station Unit 1 and 2	1320	5.2	130.0
	Ilgin power station Unit 1 and 2	500	2.6	65.0
	Kirazlıdere power complex Unit 1 & 2	1600	6.2	179.8
Ukraine	Slavyansk power station Unit 6a and 6b	660	2.8	68.6
United Arab Emirates	Hassyan Clean-Coal Power Project Unit 3 and 4	1200	4.6	126.5
Vietnam	An Khanh - Bac Giang power station Unit 1 & 2	650	3.0	81.0
	Cong Thanh power station Unit 1 and 2	660	2.8	70.0
	Hai Phong Thermal Power Station Phase III Unit 1 and 2	1200	5.0	107.5
	Nam Dinh power station Phase 1 Unit 1 & 2	1200	5.0	120.0

	Quang Trach Power Center Unit 2-1 and 2-2	1200	4.6	115.0
	Quang Tri power station Phase 2 Unit 1 and 2	1200	4.6	101.2
	Quynh Lap power station Phase 1 Unit 1 and 2, Phase 2 Unit 1 and 2	2400	9.2	230.0
	Song Hau Thermal Power Plant Units 2-1 and 2-2	2000	7.8	195.0
	Vinh Tan power station Phase 3 Unit 1-3	1980	7.8	192.4
Zimbabwe	Binga power station Unit 1A and 1B	700	3.0	79.5
	Gweru power station Unit 1*	720	2.9	75.8

Pre-permitted

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Bangladesh	Barisal power station Unit 2	350	1.5	37.5
	Phulbari power station (Sinohydro) Units 1-4	4000	15.6	390.0
Bosnia and Herzegovina	Gacko Thermal Power Plant Unit 2	350	1.6	40.0
	Ugljevik power station Expansion Unit 1 and 2	700	3.2	80.0
Indonesia	Hongshi Silikon power station*	2000	8.4	294.26
Laos	TSBP Sekong power station Unit 1 & 2	600	2.6	65.0
Madagascar	Imaloto Coal power station	30	0.1	2.5
Malawi	Kamwamba power station Units 1-6	300	1.2	30.0
Mongolia	Baganuur power station Unit 1 & 2	400	2.0	48.0
	Shivee Ovoo power station Proposal 2	300	1.0	25.0
Niger	Salkadamna power station Phase 1 Units 1-4	200	1.2	30.0
Pakistan	Siddiqsons power station	330	1.5	36.0
	Thar Block VI power station Units 1 and 2	1400	5.8	139.2
Zimbabwe	Hwange power station Units 9 & 10	600	2.7	66.8
	Kalungwizi power station Unit 1*	600	2.5	88.3
	Kwekwe power station Unit 1*	300	1.4	48.6
	Sengwa power station Units 3-8	2100	9.6	240.0



Permitted

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Indonesia	PT Tianshan Alumina power station*	160	0.8	19.4
Laos	Phonesack Xekong power station Phase II-III	1500	6.0	142.8
Mongolia	Tavan Tolgoi power station (Rio Tinto) Unit 1 and 2 (Phase I), Unit 3 (Phase II)*	450	2.1	50.4
Pakistan	Gwadar power station Units 1 and 2	300	1.4	35.0
Tanzania	Mchuchuma power station Units 1-4	600	2.8	70.0
Zambia	Mulungwa power station Unit 1	300	1.2	30.4
Zimbabwe	Sengwa power station Unit 1 and 2	700	3.2	80.0
	Titan power station Unit 1	720	1.4	34.7

Under construction

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Bangladesh	Payra power station (BCPCL) Phase II Units 1 and 2	1320	5.2	127.4
Cambodia	Han Seng power station Units 1 and 2	265	1.4	37.8
India	KSK Mahanadi Power Project Unit 4-6	1800	7.2	180.0
Indonesia	Banten Suralaya power station Unit 9 and 10	2000	7.8	191.1
	Delong Nickel Phase III power station Units 8-12*	1350	6.3	157.6
	Delong Nickel Phase IV power station Unit 2*	330	1.5	38.1
	PT Halmahera Persada Lygend Nickel Smelter power station Phase III Units 2-4*	1140	5.1	127.5
	Sumsel-1 power station Units 1 and 2	600	2.8	75.6
	Weda Bay power station Units 14*	380	1.7	44.2



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Iran	Tabas power station Units 1 and 2	650	2.8	72.8
Laos	Nam Phan power station Units 1 and 2	660	2.8	70.0
	Phonesack Xekong power station Phase I	300	1.3	32.5
Philippines	Concepcion power station Unit 2	135	0.7	17.5
Zimbabwe	Prestige power station Unit 1 and 2*	1200	4.9	121.5

Operational

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Bangladesh	Barisal power station Unit 1	350	1.5	42.0
	Patuakhali power station (RPCL/NORINCO) Phase 1 Units 1 and 2	1320	5.4	140.4
Cambodia	Sihanoukville CIIDG power station 2 Units 1 and 2	700	3.0	84.0
	Sihanoukville SEZ power station	50	0.2	5.8
India	Adani Godda power station Units 1 and 2	1600	6.2	167.4
Indonesia	Bangko Tengah power station Units 1 and 2	1200	4.8	129.6
	Delong Nickel Phase II power station Units 2-10*	1705	8.3	240.4
	Delong Nickel Phase III power station Units 2-7*	810	4.2	117.6
	Delong Nickel Phase IV power station Unit 3*	330	1.5	51.88
	Ketapang Smelter power station Phase II Units 1-3*	190	0.9	26.1
	Nagan Raya power station Units 3 and 4	400	2.0	54.0
	Nanshan Industrial Park power station Phase I Units 1-6*	180	0.6	17.2
	PT Halmahera Persada Lygend Nickel Smelter power station Phase I Units 2&3, Phase II Units 1-4 and Phase III Unit 1*	1070	4.9	126.4
	Qingdao Zhongsheng captive power station Units 1 and 2*	130	0.6	16.8
	Sulawesi Labota power station Units 1-9*	3360	15.1	380.9
	Sulbagut-1 power station Units 1 and 2	100	0.4	11.2
	Sulut-3 power station Unit 2	50	0.2	5.8



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	Wanxiang Nickel Indonesia power station Units 1 and 2*	130	0.6	16.8
	Weda Bay power station Units 5-13*	3160	14.3	376.4
Mongolia	Erdenet power station*	50	0.2	5.8
Pakistan	Jamshoro power station Unit 5	660	2.7	72.9
	Port Qasim Lucky power station*	660	2.7	75.6
	ThalNova power station	330	1.6	44.8
	Thar Block I power station Units 1 and 2	1320	5.4	145.8
	Thar Energy Limited power station	330	1.6	44.8
Philippines	Dinginin power station Units 1 and 2	1336	5.2	145.6
Serbia	Kostolac power station Phase B Unit 3	350	1.6	43.2
South Africa	Kusile power station Unit 4-6	2400	9.3	248.0
	Medupi power station Unit 1	795	3.1	89.9
Türkiye	EMBA Hunutlu power station Unit 1 and 2	1320	5.2	145.6
Vietnam	Duyen Hai Power Generation Complex Unit 2-1 and 2-2	1200	4.8	139.2
	Thai Binh Power Center Unit 2-1 and 2-2	1200	4.8	129.6
	Van Phong power station Phase 1 Units 1 and 2	1432	5.6	151.2
Zimbabwe	Hwange power station Unit 7 & 8	670	3.0	81.0

Mothballed

Country	Plant	Capacity (MW)	Annual emissions (million tonnes CO ₂)	Lifetime emissions (million tonnes CO ₂)
Bangladesh	Banshkhali power station (S Alam) Unit 1 & 2	1320	5.2	140.4



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