

Coal's Future in Africa is (Still) Dim [Update Feb 2025]

This memo updates project information since our October 2023 analysis.

BLUF: Africa is a negligible user of coal for power, with the sole exception of South Africa. Worries about growth in Africa's coal use are unfounded because the future pipeline for coal power plants is almost entirely dead.

Coal-to-power remains exceedingly modest outside South Africa

Using the latest data, 40 coal-fired power plants totaling ~52 GW of installed capacity currently <u>provide about 26%</u> of all electricity produced on the African continent, a four percentage point decrease since our last update. This equals about 2.4% of the global total (see Table 1). Nearly all of Africa's coal capacity is in one country, South Africa, while another ten countries combine for 0.36% of the world total. Most African countries have no coal power at all.

Table 1: Coal Power in Africa			
Country/Region	Power Stations (#)	Capacity (MW)	Percent of World (MW)
World	2,422	2,143,346	100
China	1,179	1,171,359	54.6
India	288	242,563	11.3
United States	200	194,131	9.1
Africa	40	51,953	2.42
Of which:			
South Africa	18	44,224	2.06
Morocco	4	4,092	0.19
Zimbabwe	3	1,670	0.08
Botswana	2	732	0.03
Zambia	2	330	0.02
Nigeria	3	285	0.01
Mauritius	3	195	0.009
Senegal	2	155	0.007
Madagascar	1	120	0.006
Namibia	1	120	0.006
Niger Source: Global Energy Monitor (January 2025)	1	30	0.001

Source: Global Energy Monitor (January 2025).

What about new coal?

While Africa's current coal capacity is negligible, many fear a potential boom, especially in countries with domestic coal resources. The latest available data from the <u>Global Coal Plant</u> <u>Tracker</u> lists 28 *potential new coal plants* (excluding refurbishments) across Africa with a total capacity of about 14.4 GW. But many of these projects are unlikely to ever be completed.

To assess how many will actually happen, we analyzed publicly available information for each project and rated the likelihood of completion (see Table 2). Here's what we found:

- In 2024, two plants came online: 800 MW at Kusile (Unit 5) in South Africa and 335 MW at Hwange (Unit 8) in Zimbabwe.
- Only three coal plants with a combined 1.4 GW appear *Likely* to commission anytime soon: the final 800 MW Unit 6 at Kusile in South Africa, 300 MW at Mulungwa, and 300 MW at Maamba Units 3-4 in Zambia.
- Nine plants are *Unlikely*. A further 16 projects of 9.8 GW are *Unclear*; progress is possible, but most are in a very early phase.
- Zimbabwe has had multiple new announcements but actual progress is shrouded in secrecy and misinformation.
- Zambia announced two new coal plants to help meet growing demand from mining and to compensate for shortages from drought-affected hydropower.

Conclusion: We remain confident that the future of coal in Africa is dead.

Project	Country	(MW)	Status	Assessment
Kusile, Unit 6	South Africa	800	Likely	Under construction, final unit scheduled for February 2025
1aamba, Units 3-4	Zambia	300	Likely	Under construction, new financing secure, planned for 2026
lulungwa	Zambia	300	Likely	Permitted, construction set to begin in 2025
Imamabula	Botswana	600	Unclear	Pre-permit, Unit 1 planned for 2026, Unit 2-4 by 2027
iwonde	Malawi	350	Unclear	Announced in 2022, no updates
(amwamba	Malawi	300	Unclear	Delayed, commissioning date pushed from 2025 to 2030
Icondezi	Mozambique	300	Unclear	Announced, no updates
alkadamna	Niger	200	Unclear	Pre-permit, given an updated commission date of 2028
Jgboba	Nigeria	600	Unclear	Permitted, construction is yet to begin
Musina-Makhado	South Africa	1320	Unlikely	Reported abandoned in favor of hydrogen and solar
Kiwira Mine-2	Tanzania	600	Unclear	Delayed due to financing issues, phase II announced 2023
Mchuchuma	Tanzania	600	Unclear	Pre-permit, construction expected 2025
Wonderful Group	Zambia	600	Unclear	Pre-permit, waiting for permit approval
Hwange, Unit 9-14	Zimbabwe	1800	Unclear	Announced, no start year
Prestige	Zimbabwe	1200	Unclear	Construction started but financing in question
Titan	Zimbabwe	720	Unclear	Permitted, planned for 2028
Zhongjin	Zimbabwe	300	Unclear	Announced, no updates
ZhongXin, Units 2-3	Zimbabwe	270	Unclear	Under construction, units 4-5 shelved, expected end of 2025
Lubimbi	Zimbabwe	50	Unclear	Announced, budgetary issues
Lubhuku	Eswatini	300	Unlikely	Delayed, seeking additional financing
Imaloto Coal	Madagascar	30	Unlikely	Entered agreement to dispose of project, expected to decommission
Rukuru	Malawi	250	Unlikely	Pre-permit and delayed, PPA negotiations suspended
Benga (Kibo Energy)	Mozambique	300	Unlikely	No updates, likely to be shelved
Transalloy	South Africa	135	Unlikely	Permitted, smelters facing "imminent closure" due to high power prices
Sengwa	Zimbabwe	2800	Unlikely	Funding issues, ZESA said it will announce the future of the project in 2024, no update
Gweru	Zimbabwe	720	Unlikely	Announced, reportedly replaced by solar
Bulawayo	Zimbabwe	90	Unlikely	Permitted, ZESA reportedly decommissioning
Harare, Unit 2	Zimbabwe	60	Unlikely	Permitted, ZESA reportedly decommissioning

Source: <u>Global Energy Monitor</u> (January 2025) and other publicly available data.

Likely: Project at an advanced stage of development and expected to commission soon. **Unclear:** Project at an early stage of development or lacking any clear signs of significant recent progress. **No/Unlikely:** Project has suffered major setbacks or has shown no progress for multiple years.