

[Update Oct 2023] Coal's Future in Africa is (Still) Dim

This memo updates project information since our [July 2021](#) analysis.

Coal-to-power today is exceedingly modest outside South Africa

Using the latest data, 39 coal-fired power plants totaling ~51 GW of installed capacity currently [provide about 30%](#) of all electricity produced on the African continent, equivalent to about 2.4% of the global total (Table 1). Yet, most African countries have no coal power, while 85% of this capacity is in one country, South Africa. The remaining nine countries combined account for 0.36% of the world total.

Country/Region	Power Stations (#)	Capacity (MW)	Percent of World
World	2,435	2,095,041	100
China	1,142	1,108,908	53
India	282	235,853	11
United States	210	205,381	10
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Africa	39	51,153	2.44
<i>Of which:</i>			
South Africa	18	43,624	2.08
Morocco	4	4,257	0.20
Zimbabwe	3	1,335	0.06
Botswana	2	732	0.03
Zambia	2	330	0.02
Nigeria	3	285	0.01
Mauritius	3	195	0.01
Senegal	2	155	0.01
Madagascar	1	120	0.01
Namibia	1	120	0.01

Source: [Global Energy Monitor](#) (July 2023).

What about new coal?

While Africa's current coal capacity is negligible, many fear a potential boom, especially in countries with domestic coal resources. As of July 2023, the [Global Coal Plant Tracker](#) lists 27 *potential new coal plants* (excluding refurbishments) across Africa with a total capacity of about 13 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:

- Only two coal plants with 1.9 GW appear likely to commission anytime soon. These are the final large new units at Kusile in South Africa and one medium-sized unit at Hwange in Zimbabwe.
- Seven plants are already shelved or very unlikely. A further 16 projects of 5.8 GW are unclear; progress is possible, but they are all in a very early phase.
- The 870 MW ZhongXin project in Zimbabwe (previously rated Likely) reportedly requires additional financing and has been downgraded to Unclear.

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

Table 2: New Coal Projects in Africa

Project	Country	Capacity (MW)	Status	Assessment
Kusile, Units 5-6	South Africa	1600	Likely	Under construction, final two units scheduled to come online in 2024
Hwange, Unit 8	Zimbabwe	335	Likely	Under construction, operations due Sept 2023
Mmamabula	Botswana	600	Unclear	Pre-permit, no updates
Morupule IPP	Botswana	150	Unclear	Pre-permit, no updates
Kamwamba	Malawi	300	Unclear	Delayed, given an updated commission date of 2025
Rukuru	Malawi	100	Unclear	Pre-permit and delayed, loan being sought
Chitima	Mozambique	600	Unclear	Announced, no updates but featured on ERG website
Ncondezi	Mozambique	300	Unclear	No recent info, had not reached financial close as of June 2022
Salkadamna	Niger	200	Unclear	Pre-permit, no updates
Ugboba	Nigeria	600	Unclear	Permitted, ceremony May 2023, no update since
[Unnamed Projects]	South Africa	1500	Unclear	Announced for 2027 but no public details
Transalloy	South Africa	135	Unclear	Permitted, no updates
Mchuchuma	Tanzania	600	Unclear	Pre-permit and delayed, construction expected 2025
Kiwira Mine-2	Tanzania	200	Unclear	Delayed, scheduled for completion in 2027
ZhongXin, Units 2-5	Zimbabwe	870	Unclear	Under construction, requires additional financing, owner noted problems with PPA
Zambezi Gas & Coal Mine	Zimbabwe	750	Unclear	Delayed, seeking additional funding
Beifa	Zimbabwe	270	Unclear	Permitted, no updates
Bulawayo	Zimbabwe	90	Unclear	Delayed, in Aug 2023 GoZ announced intent to rehab
Harare, Unit 2	Zimbabwe	60	Unclear	Permitted, awaiting financing
Lubhuku	Eswatini	300	No/Unlikely	Indefinitely delayed due to funding issues
Pokot	Kenya	64	No/Unlikely	Replacing coal with wind farm
Imaloto Coal	Madagascar	30	No/Unlikely	No further planned expenditures
Benga (Kibo Energy)	Mozambique	300	No/Unlikely	Likely shelved
Musina-Makhado	South Africa	1320	No/Unlikely	Reported abandoned in favor of hydrogen and solar
Sengwa	Zimbabwe	2800	No/Unlikely	Funding issues
Maamba, Units 3-4	Zimbabwe	300	No/Unlikely	Stalled due to lack of funding

Source: [Global Energy Monitor](#) (July 2023) 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 been shelved, suffered major setbacks, or has shown no progress for multiple years.