

## [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
<b>World</b>	<b>2,435</b>	<b>2,095,041</b>	<b>100</b>
<b>China</b>	1,142	1,108,908	53
<b>India</b>	282	235,853	11
<b>United States</b>	210	205,381	10
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<b>Africa</b>	<b>39</b>	<b>51,153</b>	<b>2.44</b>
<i>Of which:</i>			
<b>South Africa</b>	18	43,624	2.08
<b>Morocco</b>	4	4,257	0.20
<b>Zimbabwe</b>	3	1,335	0.06
<b>Botswana</b>	2	732	0.03
<b>Zambia</b>	2	330	0.02
<b>Nigeria</b>	3	285	0.01
<b>Mauritius</b>	3	195	0.01
<b>Senegal</b>	2	155	0.01
<b>Madagascar</b>	1	120	0.01
<b>Namibia</b>	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
<b>Kusile, Units 5-6</b>	South Africa	1600	Likely	Under construction, final two units scheduled to come online in 2024
<b>Hwange, Unit 8</b>	Zimbabwe	335	Likely	Under construction, operations due Sept 2023
<b>Mmamabula</b>	Botswana	600	Unclear	Pre-permit, no updates
<b>Morupule IPP</b>	Botswana	150	Unclear	Pre-permit, no updates
<b>Kamwamba</b>	Malawi	300	Unclear	Delayed, given an updated commission date of 2025
<b>Rukuru</b>	Malawi	100	Unclear	Pre-permit and delayed, loan being sought
<b>Chitima</b>	Mozambique	600	Unclear	Announced, no updates but featured on ERG website
<b>Ncondezi</b>	Mozambique	300	Unclear	No recent info, had not reached financial close as of June 2022
<b>Salkadamna</b>	Niger	200	Unclear	Pre-permit, no updates
<b>Ugboba</b>	Nigeria	600	Unclear	Permitted, ceremony May 2023, no update since
<b>[Unnamed Projects]</b>	South Africa	1500	Unclear	Announced for 2027 but no public details
<b>Transalloy</b>	South Africa	135	Unclear	Permitted, no updates
<b>Mchuchuma</b>	Tanzania	600	Unclear	Pre-permit and delayed, construction expected 2025
<b>Kiwira Mine-2</b>	Tanzania	200	Unclear	Delayed, scheduled for completion in 2027
<b>ZhongXin, Units 2-5</b>	Zimbabwe	870	Unclear	Under construction, requires additional financing, owner noted problems with PPA
<b>Zambezi Gas &amp; Coal Mine</b>	Zimbabwe	750	Unclear	Delayed, seeking additional funding
<b>Beifa</b>	Zimbabwe	270	Unclear	Permitted, no updates
<b>Bulawayo</b>	Zimbabwe	90	Unclear	Delayed, in Aug 2023 GoZ announced intent to rehab
<b>Harare, Unit 2</b>	Zimbabwe	60	Unclear	Permitted, awaiting financing
<b>Lubhuku</b>	Eswatini	300	No/Unlikely	Indefinitely delayed due to funding issues
<b>Pokot</b>	Kenya	64	No/Unlikely	Replacing coal with wind farm
<b>Imaloto Coal</b>	Madagascar	30	No/Unlikely	No further planned expenditures
<b>Benga (Kibo Energy)</b>	Mozambique	300	No/Unlikely	Likely shelved
<b>Musina-Makhado</b>	South Africa	1320	No/Unlikely	Reported abandoned in favor of hydrogen and solar
<b>Sengwa</b>	Zimbabwe	2800	No/Unlikely	Funding issues
<b>Maamba, Units 3-4</b>	Zambia	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.

*Correction:* An earlier version of this memo listed Maamba, Units 3-4 as a project in Zimbabwe. On July 10, 2024, this was corrected to Zambia.