

Coal's Future in Africa is Dim

As all regions transition to a cleaner energy future, coal-fired power is in the spotlight. As the region with the greatest shortages of energy, might Africa have a coal future?

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

As of 2020, 34 coal-fired power plants totaling ~53GW of installed capacity provide [about a third](#) of all electricity produced on the African continent (see Table 1). Yet, 86% of this capacity is in one country, South Africa. Even so, the region's coal capacity is a fraction of the global total:

TABLE 1: COAL POWER		
	Power Stations (#)	Capacity (MW)
Africa	34	52,812
<i>Of which:</i>		
South Africa	19	45,408
Morocco	4	4,257
Zimbabwe	2	1,620
Zambia	2	330
Mauritius	3	195
Rest of Africa*	4	1,002

China	1,077	1,004,948
United States	263	246,187
India	281	228,964

Source: [Global Energy Monitor](#) (2020). *One plant each in Senegal, Namibia, Madagascar, and Botswana.

But what about new coal?

The rest of the world dwarfs Africa's current coal-to-power industry, but many fear a potential coal boom on the continent, especially in countries with domestic coal resources. As of 2020, the [Global Coal Plant Tracker](#) lists 25 potential new coal plants (excluding refurbishments) across Africa. Even though these projects are still relatively minor in global context, we analyzed publicly-available information for each project and assessed the likelihood of actually reaching completion (see Table 2).

Conclusion. Only one (relatively small) of the 25 potential coal projects appears likely to commission soon. Nine further projects, with a combined proposed capacity of 3,410 MW, appear possible, although they are all in a very early pre-construction phase. Fifteen are already cancelled or appear unlikely to reach completion. In short, the future of coal power in Africa is dead.

TABLE 2: NEW COAL PROJECTS IN AFRICA

	Country	Capacity (MW)	Status	Assessment
Keita	Niger	100	Likely	Under construction, due to open end 2020
Mabesekwa Export Independent Power	Botswana	600	Unclear	Incomplete financing, pre-construction, partially licensed
Sese Integrated Power	Botswana	450	Unclear	Partially licensed, unfunded
Imaloto Coal	Madagascar	60	Unclear	Pre-construction planning
Kamwamba	Malawi	300	Unclear	Stalled
Rukuru	Malawi	100	Unclear	Pre-construction, no recent info
Tete	Mozambique	200	Unclear	No recent info, pre-permit stage
Mbeya Coal to Power	Tanzania	300	Unclear	Pre-construction
Binga Unit 1A + 1B	Zimbabwe	700	Unclear	No recent info
Sengwa	Zimbabwe	700	Unclear	Pre-construction, faces opposition
Yayu	Ethiopia	90	No/Unlikely	Cancelled but could revive
San Pedro Port	Ivory Coast	700	No/Unlikely	No progress, likely dead
Kitui	Kenya	960	No/Unlikely	Paused
Lamu Power	Kenya	1050	No/Unlikely	Licenses revoked
Pamodzi Unit 1	Malawi	120	No/Unlikely	Shelved
Benga (Kibo Energy)	Mozambique	300	No/Unlikely	Only announced
Cahora Bassa	Mozambique	120	No/Unlikely	Shelved
Ncondezi	Mozambique	300	No/Unlikely	Delayed
Musina-Makhado	South Africa	3000	No/Unlikely	Shelved
Khanyisa	South Africa	300	No/Unlikely	Funders withdrew, licenses revoked
Transalloy	South Africa	150	No/Unlikely	No developments
Ngaka	Tanzania	270	No/Unlikely	Shelved
Rukwa Coal to Power	Tanzania	120	No/Unlikely	Shelved
Chipata	Zambia	300	No/Unlikely	Shelved
Bulawayo	Zimbabwe	90	No/Unlikely	Non-operational

Source: [Global Energy Monitor](https://www.energyforgrowth.org/) (2020) and other publicly available data.

Note:

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.

