

Data · November 2024

## Renewables Bulletin: Africa edition

This is a text-only version. Data is available as interactive graphs [online](#).

### Key points:

- The Renewables Bulletin is a data product providing timely and ready-to-use data on countries' progress in developing renewables to produce sustainable, zero-carbon energy, one region at a time.
- Access to accurate data and an indication of what we can learn from it supports our collective efforts to hold governments accountable for setting – and delivering – ambitious targets.
- The dataset is curated to enable a country-level assessment of progress against the global effort to triple the world's installed renewable energy capacity and double the average annual rate of energy efficiency improvements by 2030, targets agreed by 198 countries at COP28.
- **Interactive graphs of the full dataset for 11 African countries are available online [here](#).**

### Edition 1: Renewables electrifying Africa (part 1)

We're starting in Africa, where low levels of electrification and the need for sustainable energy mean that [renewable expansion](#) has a key role to play. Our data covers 11 countries from across the continent, with a wide profile of energy mixes and markets. Six of these countries are members of the Accelerated Partnership for Renewables in Africa (APRA). Formed at the Africa Climate Summit in 2023, [APRA aims to enable frameworks for Africa's energy transition](#), including efforts to de-risk green investment and unlock capital. Africa currently receives only a tiny fraction of the global investment for the energy transition – [40 times less](#) than the global per capita average in 2023.

### Ambition in numbers: African targets for renewables growth

African leaders aim for [300 GW of renewables capacity in 2030](#), up from 56 GW in 2022. In 2023, capacity reached 72 GW. So, to meet this goal, Africa must significantly speed up renewable energy deployment, [increasing from just 7.9 GW added in 2023 to 32.5 GW](#) annually for the rest of the decade, quadrupling the current installed capacity. Within our sample of 11 countries, many need to update their targets to reflect the recent achievements in accelerating renewable energy deployment. Mobilising financial assistance at affordable terms through [international support](#) is critical for low-income countries to meet their targets. Ambition must be high where starting points are low. Setting targets for energy generation will better indicate the scale of actual change needed.

## Targeting generation growth is more impactful than capacity

While the global goal to triple renewable energy focuses on capacity – the maximum electricity a plant can produce under ideal conditions – it is generation that makes the real difference. Generation represents the actual electricity produced and consumed, affecting energy supply and greenhouse gas emissions. Increasing capacity is vital, but efficiency and consistency in generation are key to real progress.

We've put capacity figures for each country side-by-side with supply – which includes domestic generation and net imports – to see how closely capacity aligns with actual power production. Find the data [here](#).

## In the mix: Renewables growth can edge out fossil fuels

Despite its wealth of renewable resources, many African energy systems still rely on fossil fuels. This must change to sustainably expand energy access to the 600 million people in Africa without it.

These [graphs](#) show how the energy mix generated in each country has developed over the last five years.

For context, global renewable energy additions have been growing every year for two decades, closing in on a 50% increase in 2023, according to the International Energy Agency. However, based on current policy plans, the world is on track to fall short of the 3x goal, adding 7,903 GW of total cumulative renewable capacity by 2030 rather than 11,000 GW.

## Decarbonisation heroes: Wind and solar

Solar PV and wind will have to account for around 90% of the renewable energy capacity additions needed to reach over 11,000 GW, according to [IRENA's 1.5°C Scenario](#) in its World Energy Transitions Outlook. They are the [cheapest, fastest, and most scalable solutions](#) to decarbonise the power sector.

Africa has significant solar and wind resources to harness, both of which will be crucial to meeting its development goals through greater access to electricity. Most countries are growing their renewables generation but this expansion is not consistent across the region.

## Wind and solar capacity in Africa: Greater growth needed

Growth is occurring, but more must be done to enable the sustained, upward trajectory for solar and wind capacity increases across Africa. These [graphs](#) show annual capacity changes where a change in capacity has been recorded. Countries where no capacity growth was registered between 2017 and 2023 are omitted.

## Energy efficiency is key to the energy transition

The global target agreed at COP28 in 2023 is to double the average rate of improvement in global energy efficiency

from 2% to 4% a year. The energy intensity of an economy is the most useful proxy to track efficiency gains, as it shows how much energy is supplied to produce one unit of economic output. The lower the number, the more efficiently energy is being used.

The lefthand [graph](#) on the next slide shows changes in energy intensity from 2017 to 2021, which is the most recent available for the nine countries with data, while the righthand graph translates this data into its energy efficiency improvement rate for the period. To understand how countries are progressing on energy efficiency, we need to consider the context and starting point of energy intensity. Taking the bottom and top of the spectrum as examples:

**Ghana** has consistently low energy intensity levels, meaning its energy consumption per unit of GDP is relatively efficient. Its low level of change compared to its neighbours is indicative of its low baseline rather than a meaningful decrease in performance.

**Ethiopia** began with high energy intensity in 2017, but has made substantial progress in improving efficiency. By 2021, Ethiopia's compound annual growth rate (CAGR) in energy efficiency improvements exceeded the COP28 pledge of 4%.

## Measure energy intensity to track progress on energy efficiency

Following the COP28 pledge, we would expect to see indications of improved energy efficiency – that is lower energy intensity – in national economies from 2024 onwards.

## Global investment in renewables is not equitable

With the commitment to triple renewable power generation capacity and double the energy efficiency improvement rate by 2030, countries must intensify their efforts to ensure investments align with these goals.

Developing countries face significant challenges in raising funds for renewable energy infrastructure due to weakened finances following the Covid pandemic, rising interest rates, and debt concerns. The situation is especially bad in Sub-Saharan Africa, which received less than USD 3.6 billion in 2022 ([less than 1% of global 2022 renewables investment](#)), despite having the greatest need to expand electricity access.

## A fairer distribution of investment is key

Adequate investments in renewables, alongside effective government policies to create an operable market for them, will be key drivers to [scaling up renewable energy](#) at the necessary rate.

At present, [around half](#) of clean energy financing directed to Sub-Saharan Africa comes from public sources such as governments and development finance institutions. This is insufficient for the scale of infrastructure development needed, and is a reflection of the inequities in resource deployment globally.

## Renewable electricity powers sustainable development

Africa faces an urgent and growing need to expand access to renewable energy. The continent's population – many of whom live without access to reliable power – is forecast to grow from [1.4 billion to 2.5 billion by 2050](#). Rising incomes and urbanisation are driving even greater demand for power.

Accelerating renewable energy deployment, investing in renewables-driven infrastructure, and improving energy efficiency are crucial to meet growing energy demand without locking in future emissions or leaving Africa with stranded infrastructure assets that rely on fossil fuels.

## Electricity-based clean cooking is vital to health and the planet

More than 900 million people in Africa live without access to methods of ‘clean’ cooking – almost 40% of the global total. This means four out of five Africans still use traditional means of heating and use polluting fuels for cooking. Household air pollution is linked to [around 3.7 million early deaths a year](#) around the world, making reducing the use of dirty fuels such as coal or charcoal a clear health priority.

This [data](#) shows the level of access to electricity for cooking. Electric cooking does not result in air pollution in households, or in greenhouse gas emissions if the electricity is generated using renewable resources.

## Renewables power livelihoods and economic growth

The tripling of renewable energy capacity by 2030 is expected to create over [30 million new jobs globally](#), bringing significant socio-economic benefits. Africa currently holds just [3% of renewable energy jobs](#), but ambitious targets for expanding capacity should bring a corresponding growth in jobs. Renewable energy projects like wind and solar [create jobs](#) in manufacturing, installation and maintenance, while also boosting local economies, especially in rural areas where access to power is lowest.

*Find the dataset for 11 African countries in interactive graphs on [Zero Carbon Analytics](#).*