

AFRICA ENERGY RENAISSANCE CONFERENCE (AERC)

DISCUSSION PAPER

Africa's priorities for a global Renewable Energy target



POWER SHIFT
AFRICA



Key messages:

- A rapid roll-out of people-centred, environmentally, and socially appropriate renewable energy in Africa is the answer to both the climate crisis and energy access as well as an enabler to attaining Africa's development aspirations.
- Renewable energy targets and plans in Africa need to ensure developers (and in particular smaller scale and less experienced/resourced actors such as farmers, cooperatives, communities, small and medium-sized companies, public institutions) face safe long-term investment security (through for example feed-in tariffs and other payment guarantees).
- A global renewable energy goal must adhere to the tenets of justice. An effective global renewable energy goal will require political support, new financing mechanisms, and alternative business strategies for stakeholders in the value chain especially for the most vulnerable regions.
- As the global renewable energy target continues to receive increasing political support, increase in international finance for renewable energy in Africa and call for a big reflection on the Global North offer on renewables that is currently both lacking in speed and scale is very much needed.
- There is also a need to stop the mal-alignments of support from Global North countries as recently observed by the dash for Africa's gas. Africa will need a genuine support and historical polluters will need to be responsible partners in the cooperation to limit global temperature rise and avert a catastrophic future.
- The global renewable energy goal must be able to address the existing gaps in renewable energy investments especially for the most vulnerable regions such as Africa.

Summary

Some African countries have developed ambitious renewable energy targets by 2030. This is driven by the need to attain energy security, access and avoiding carbon emissions. Regional leaders like Kenya, Rwanda, Morocco and Mauritania have successfully integrated renewables targets into their national energy plans. However, international public finance for clean energy in Africa is marginal. In the four years following the Paris Agreement, international public finance from G20 countries and the major multilateral development banks provided only \$13 billions of public finance for renewable energy in Africa, 3.7 times less than the support given to fossil fuels[1].

In addition, African countries receive much less finance for developing renewable energy compared to countries in the Global North. Worldwide, Africa and the Middle East receive only 2% of investment into renewable energy annually.[2] Subsequently, of the almost 180,000 MW of new renewable power worldwide only 2000 MW were added on the African continent.[3] Instead of pouring more and more finance into the fossil fuel industry in the region, making use of Africa's huge renewable energy potential and addressing the urgent need for a Just Transition, should be at the centre of engagements with Africa.

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A rapid roll-out of people-centred, environmentally, and socially appropriate renewable energy in Africa is the answer to both the climate crisis and energy access as well as an enabler to attaining Africa's development aspirations.

[1] <https://en.milieudefensie.nl/news/07-md-banktrack-fossil-fuels-africa-rpt-hr.pdf>

[2] Nick Ferris and Josh Rayman, Energy Monitor's power transition tracker: Europe, the Middle East and Africa, Energy Monitor, November 8, 2021.

[3] https://www.giz.de/en/downloads/Study_Renewable%20Energy%20Transition%20Africa-EN.pdf

Fossil fuel phase out and renewable energy phase in

Africa has spent decades and billions of dollars investing in fossil-fuel based energy systems that have failed to provide modern energy access to hundreds of millions of its people. Globally, renewable energy offers the technical potential to produce more than 100 times the world's energy needs by 2050.[4] Africa is a renewable energy superpower, with greater capacity than any other continent. Renewable energy is the most affordable option and best investment for Africa.

Although investments in renewable energy in Africa have strongly increased in the last two decades, this remains relatively low, especially when compared to other world regions. Africa's current energy generation mix continues to rely on fossil fuels, while renewable sources account for nearly 18 percent of the electricity output. .

IRENA confirms, renewable energy technologies now represent the most economical solution for new capacity in a growing number of countries and regions and are typically the most economical solution for new grid connected capacity.

Long term strategies for renewable energy have been developed in a few African countries such as Kenya, Morocco, Rwanda and Mauritania. However, renewable energy policies and strategies in Africa often lack detail in relation to how they will develop the renewable energy capacity.[5]

In Africa, mostly energy development plans are based on least cost analyses, which merits careful scrutiny since renewables often have relatively high upfront costs but low long-term costs (no fuel expenses). Renewable energy targets and plans in Africa need to ensure developers (and in particular smaller scale and less experienced/resourced actors such as farmers, cooperatives, communities, small and medium-sized companies, public institutions) face safe long-term investment security (through for example feed-in tariffs and other payment guarantees).

[4] <https://carbontracker.org/solar-and-wind-can-meet-world-energy-demand-100-times-over-renewables/>

[5] <https://www.irena.org/costs/Power-Generation-Costs>

Investment constraints

Between 2010 and 2020, 55 billion U.S. dollars were invested in renewable sources in the continent, which represented only a 2.4 percent share of the global investment[6]. Increasing the investment value is, however, essential to turn renewables into a reliable and affordable source for the people of Africa, and therefore reduce energy poverty on the continent. Additionally, the energy transition is set to play a key role in increasing employment. According to estimates, construction, installation, and manufacturing of renewable technologies could create almost five million short-term jobs and some 370,000 long-term occupations in Africa by 2030.[7]

In addition to reducing and or avoiding carbon emissions from its energy systems, Africa must mobilize sustainable and affordable access to energy finance for the approximately 600 million people who lack access to electricity, and the more than 900 million people in sub-Saharan Africa alone who lack access to clean cooking solutions.

Current climate finance flows in Africa are dwarfed in comparison to fossil fuel financing. For instance, public and private institutions invested at least USD 29 billion per annum between 2016 and 2021 into fossil fuel companies and projects in Africa[8]. Almost 90% of this financing was from financial institutions from the Global North (North America, Europe, and Australia – 56%) and Asia (China, and Japan – 32%).[9]

A global renewable energy goal must adhere to the tenets of justice. An effective global renewable energy goal will require political support, new financing mechanisms, and alternative business strategies for stakeholders in the value chain especially for the most vulnerable regions.

[6] <https://www.statista.com/statistics/1297516/investments-in-renewable-energy-in-africa-as-a-share-of-global-investment/>

[7] <https://www.statista.com/statistics/1278273/potential-job-gains-per-renewable-energy-technology-in-africa/>

[8] <https://www.climatepolicyinitiative.org/publication/landscape-of-climate-finance-in-africa/>

[9] <https://www.climatepolicyinitiative.org/publication/landscape-of-climate-finance-in-africa/>

Genuine cooperation

Africa has consistently championed a global goal of limiting warming to below 1.5 °C above pre-industrial levels. This was demonstrated by 54 African states supporting the 1.5 °C goal which led to its inclusion in the Paris Agreement. Limiting warming to below 1.5 °C is essential for the survival, development and prosperity of Africa because, as a large continental land-mass, Africa will warm roughly 1.5 times the global average level of warming, meaning global average warming of 1.5 °C already means warming of more than 1.5 °C on the continent of Africa, with major adverse impacts for Africa's people, communities, economies and countries.

According to IRENA, renewable energy must be scaled up to over 10,000 GW in 2030 or an average of 1,000 GW annually to keep the 1.5°C temperature target in reach. To achieve this level of deployment, a massive shift in global policy and investment is needed. As the global renewable energy target continues to receive increasing political support, increase in international finance for renewable energy in Africa and call for a big reflection on the Global North offer on renewables that is currently both lacking in speed and scale is very much needed. There is also a need to stop the malalignments of support from Global North countries as recently observed by the dash for Africa's gas. Africa will need genuine support and historical polluters will need to be responsible partners in the cooperation to limit global temperature rise and avert a catastrophic future.

'Nuclear and advanced renewables'

Nuclear and hydrogen are not good for Africa. Nuclear energy, like fossil fuels, is costly, capital-intensive and as a centralized energy system, is unsuitable to address universal energy access. Nuclear energy produces nuclear waste that remains radioactive and toxic for hundreds to thousands of years, and cannot be easily managed. Development of nuclear energy may lead to catastrophic nuclear accidents, increases in the risks of illness and disease, such as cancer and faces limitations and foreign dependencies due to the need for nuclear fuel. Further, nuclear is expensive to build, run and operate, it is slow to build and deploy, and often subject to delays and cost overruns.

In addition to nuclear power, other technologies such as hydrogen produced from renewable energy involves the risk of misapplying Africa's substantial renewable energy potential. Africa has the highest untapped renewable energy potential worldwide. Development of these renewable energy resources could make a major contribution to enhancing energy access, and enabling an energy transition that supports Africa's development. Yet there are proposals to divert electricity produced from renewables to produce hydrogen, steel and aluminium for export. As well as diverting renewable energy resources, this would waste them. Converting renewable energy into hydrogen gas results in substantial energy losses.

However, hydrogen, if it is produced from genuine renewable energy sources, at a medium-scale, and for use by Africans, can form part of a viable energy access and transition strategy. The trade-offs between using renewable energy directly, and using it for the production of hydrogen gas, will need to be carefully weighed, and aligned with models of economic development that are focused on meeting the needs of Africans.