

RENEWABLE ENERGIES: AFRICA'S ECONOMIC FUTURE?

Demographic growth in Africa is currently one of the most dynamic worldwide. It goes along with an exodus to urban areas that has increased in recent years. These developments in space and time contribute to a growing demand for energy, headed to industrial production, transport, households or air conditioning devices (crucial for some regions). This demand is all the greater because nearly 600 million Africans do not have access to electricity.

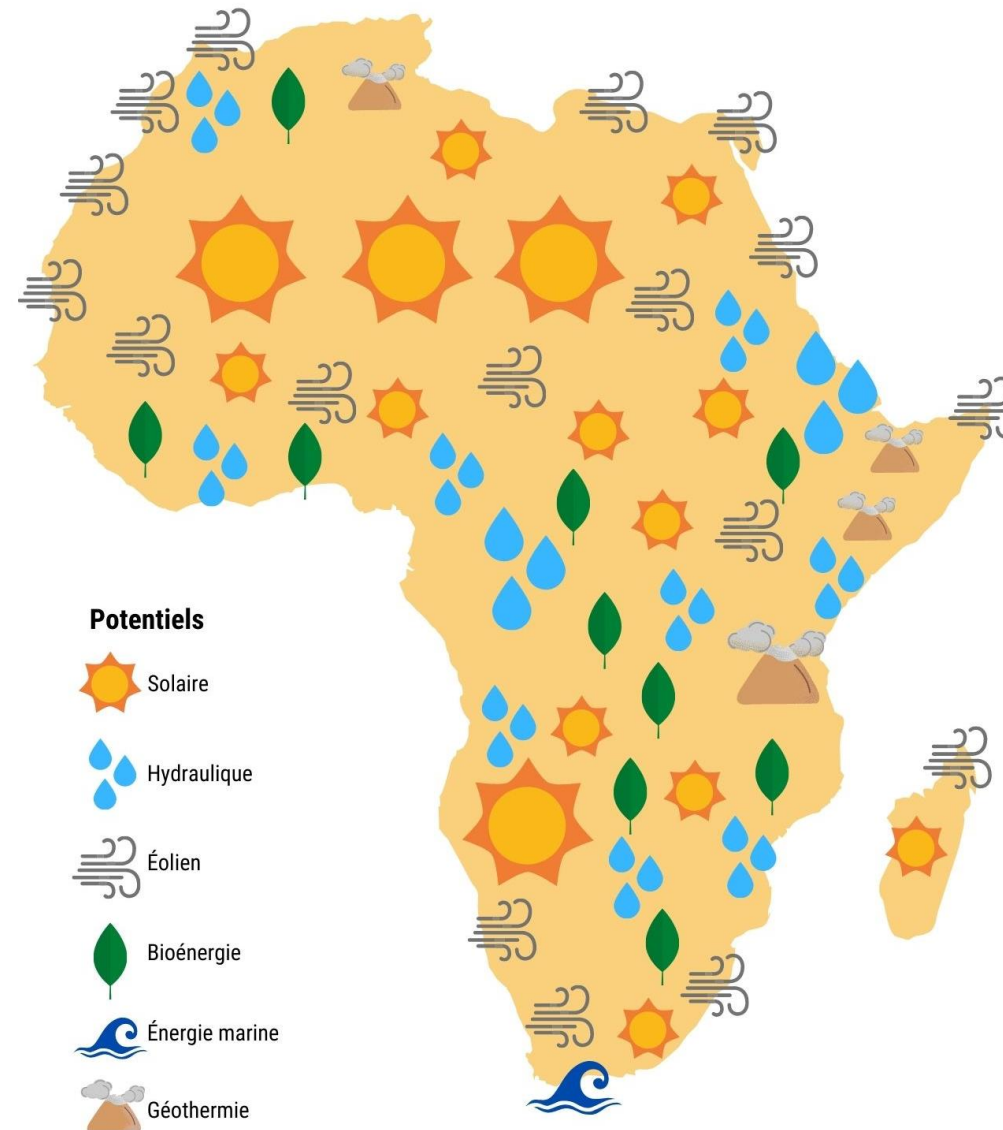
However, energy supply will not have to keep up proportionally with Africa's population growth: the work already undertaken on energy efficiency (regulations, standards, new energy efficiency technologies, etc.) aims to enable a more intelligent and balanced use of resources produced or imported in Africa¹. On the other hand, energy distribution remains deeply fragmented, but the continent is showing a real willingness to quickly fill its deficiencies.

Nonetheless, the question of supply adequacy and distribution networks is not the only one that needs to be looked into; the question of the nature of energy sources is equally important for the African continent.

Currently, fossil fuels (oil, gas and coal) represent 80% of the continent's electricity production, a major issue for economic development and social balance in Africa. The involvement in hydrocarbons is real and strong. And recent discoveries of oil and gas deposits in sub-Saharan Africa should contribute to this in the coming years. Some states derive even significant geopolitical benefits from it. For instance, Egypt has established its position as an energy hub in the Mediterranean by developing its natural gas liquefaction infrastructure, importing gas and then re-exporting it in its liquid state.

But while these sources of energy are crucial to Africa's development today, it is also important for the continent to transition to more sustainable energy models. This energy transition is not only of environmental importance; it is also a vital matter for African countries to maintain their economic health and ensure their energy security by favoring local production solutions adapted to their own renewable natural resources and to the specific needs of the populations.

In this context, Africa's renewable energy production potential would be sufficient to meet all of its growing energy needs, especially since the diversity of production methods would give it an increased resilience.



Source : Analyse de l'IRENA d'après l'Atlas mondial

Africa's primary source of renewable energy is photovoltaic energy due to the high level of sunshine that much of the continent receives throughout the year. However, despite having the richest solar resource in the world, Africa's PV power production is only 1% of the world's total². At the same time, other renewable energy solutions are beginning to emerge in Africa:

- Wind energy is a very important potential source for several coastal countries, such as Morocco, Mauritania, Egypt, Kenya or Madagascar³.
- Hydroelectricity is an essential source of energy for the Democratic Republic of Congo and Ethiopia, for example, where it accounts for more than 80% of electricity production⁴. In Guinea-Conakry, it has enabled the massive electrification of hundreds of thousands of households.
- To a lesser extent, geothermal and biomass energy production is also possible in some African regions, such as Kenya.

The African states are not mistaken about the economic prospects offered by this energy transition and have already developed regional action plans (in addition to national programs): the "West African Clean Energy Corridor" for Western countries, the "Africa Clean Energy Corridor" for the south and east of the continent, the "Pan-Arab Clean Energy" in Maghreb and East Africa, or the "Regional Renewable Energy Roadmap for Central Africa" covering various states. The projects are as much national as international, with the multiplication of mini and off-grid electricity powered by solar energy at the local level.

Projects are not only coming from African states, and foreign investments are increasing. The 2016 Havas Horizons study highlighted that the energy sector was the most favored by foreign investors⁵ and this has been confirmed in practice. As examples, the German company Nordex invested in wind production in South Africa in 2018, Finland has financed various African wind projects to the tune of 114 million euros, or China, omnipresent in Africa, which continues to provide massive funds for the development of African renewable energies. The French group Engie is also actively involved in the development of renewable energies in Africa: wind farms in Morocco and Egypt, solar thermal power plants in South Africa where it is also involved in the development of hydrogen technologies...

There is no shortage of economic opportunities for foreign players in Africa in the field of renewable energy, especially since African states are willing to encourage initiatives and the development of these local and sustainable energy sources. International organizations are also mobilizing to provide financial assistance to various renewable projects, such as the Sustainable Energy Fund for Africa created by the African Development Bank or the Africa Renewable Energy Fund of the European Investment Bank.

With a strong expertise in Africa, being active there since 1999, and a large network of local correspondents, SQUARE STRATEGY supports companies wishing to set up operations in Africa or establish partnerships with local companies.

¹ « Afrique, les recettes d'un mix énergétique « gagnant » », Jeune Afrique, 22 mars 2021

² International Energy Agency, Africa Energy Outlook 2019

³ African Development Bank Group, Development of wind energy in Africa

⁴ International Energy Agency, Climate Impacts on African Hydropowers

⁵ Havas Horizon, Financer la croissance à l'horizon 2020 : perception des investisseurs internationaux