



# Transforming Energy for a Clean and Sustainable Future in Africa

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**DISCUSSION PAPER**

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# Background

Energy is the key component in the mitigation response to combatting climate change. If dangerous anthropogenic interference with the climate is to be avoided this century, a worldwide transition to renewable energy sources needs to take place urgently. The African continent is facing a particularly key moment in its development pathway, with a stark choice to be made between either following the same high-carbon path pursued by industrialized countries, or concentrating its growth on low-carbon climate resilient development.

Demand for energy is exploding in Africa, as

\$211 billion, with countries in Africa posting the highest percentage increase of all developing regions (excluding the emerging economies of Brazil, China and India).<sup>2</sup>

However there are still significant obstacles to the large scale and widespread provision of clean energy in Africa and a worrying dependence on fossil fuels remains. To transform the continent, economic growth must be decarbonized, which will require transformation of both energy policies and practices. A paradigm shift is needed, with a new approach that focuses on effective energy governance and the promotion

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countries develop economically and per capita energy use rises as per capita incomes grow<sup>1</sup>. The continent has the natural resources required to provide renewable sources of energy, some of which are already being exploited. Global investments in renewable energy grew by 32 per cent between 2009 and 2010, to a record US

<sup>1</sup> Intergovernmental Panel on Climate Change (IPCC) (2012). Renewable Energy Sources and Climate Change Mitigation: Technical Support Unit Working Group III: Special Report of the IPCC

of inclusive and sustainable growth. Choosing this path is essential both for the good of the planet and the development of Africa.

<sup>2</sup> United Nations Economic Commission for Africa (UNECA) (2012). A Green Economy in the Context of Sustainable Development and Poverty Eradication: What are the Implications for Africa?. Addis Ababa, Ethiopia

# Challenges

Energy poverty is one of the greatest development challenges facing the African continent. The majority of the population does not have access to modern energy services that are efficient, reliable and affordable. Among other problems, this limits the ability to preserve food, access healthcare and pursue education. Individuals, families and businesses are affected, and opportunities to improve health and prosperity are lost.

Financing to develop energy infrastructure remains inadequate. The African continent spends about US \$11.6 billion per year on developing power sector infrastructure, which is only about a quarter of the annual financing requirement, and private sector investment is urgently required to bridge the gap<sup>3</sup>. Yet appropriate policy and regulatory frameworks to stimulate investment are severely lacking.

Access to energy is a human right, which must be achieved for all to allow for equitable development. In order to achieve it for Africans, policymakers will need to come together to develop a Pan African approach to energy policy. They will have to work together with communities and civil society towards a transformation of energy production from clean and renewable sources, and the promotion of green and inclusive growth.

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<sup>3</sup> African Development Bank (AfDB) (2013). Energy Sector Capacity Building Diagnostic and Needs Assessment Study. Africa Development Bank Group. Tunisia.

# Policy Recommendations

African countries must aim to transition to 100% renewable energy by 2050, along with developing countries in other regions of the world. Developed countries should aim to reach this target by 2030 - their transition should take place faster because of their higher per capita emissions, historical responsibility, and higher technological and financial capacity to act. As developed countries work to phase out obsolete and dirty fossil-fuel based systems in their own territories, they must also provide extensive support to Africa. This enormous challenge will require working together to massively scale up renewable energy systems and invest in the future.

## **African governments must support energy transformation in the following ways:**

» **Modernize energy sources and channel resources towards renewables:** Move away from fossil fuels and mega-dams as energy sources and end practices such as the use of kerosene-based lighting by providing effective, reliable and affordable alternatives. Governments should promote a universal right to access renewable energy and respond to clearly identified needs by ensuring provision of tailored and adjustable energy services.

- » **Establish renewables markets:** Create mechanisms and regulatory frameworks that incentivize investments and design appropriate risk mitigation measures. Support money against performance schemes that guarantee payment over decades and use of Feed-In tariffs in African countries, operationalize green bonds in Africa, and explore ways to use flows from global green bonds to finance green growth on the continent. Subsidies for fossil fuels should be removed and redirected towards renewables.
- » **Create relevant partnerships:** Promote Foreign Direct Investment and creation of public private partnerships in renewable energy enterprises.
- » **Involve communities:** Involve local communities in integration of energy efforts into development planning. For example, SMEs and domestic companies could provide electricity to each other through connected mini-grids and national grids, increasing resilience and creating opportunities for income generation and economic development.

- » **Support a mix: Support** decentralized energy generation from numerous sources - a mix of small and medium sized producers serving consumers on different scales, as well as large-scale energy generation sources. Provide support for electrification, community-based power generation, and off-grid development.
- » **Build capacity for equitable development:** Work together to facilitate capacity building and exchange of lessons learned across communities, countries and continents. Look at successful cases such as Ethiopia and South Africa and see what can be replicated, and focus on providing energy access for both rural and urban centres across Africa.

## **Developed countries must support Africa by:**

- » **Channelling resources toward renewables:** Ensure money from the newly established Green Climate Fund flows to renewables projects and not funding dirty fuels, and provide international financial support to facilitate on-grid renewable energy investments at different scales of generation. Although renewable energy carries relatively high investment costs, it is subsequently relatively cheap and not dependent on costs for fuel. Africa needs low-cost upfront finance to facilitate investment now for benefits in the future.
- » **Supporting capacity building:** Ensure technology and Means of Implementation (MOI) transfer to create domestic manufacturing, maintenance and project development capacity of renewable energy technologies.

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# Get in touch

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