

AFRICA CLEAN ENERGY CORRIDOR

A REGIONAL APPROACH TOWARDS A LOW-CARBON FUTURE

With growing economies across Africa, demand for electricity is set to at least double by 2030. But the continent generates most of its electricity today from carbon-intensive fossil fuels: natural gas, oil or coal.

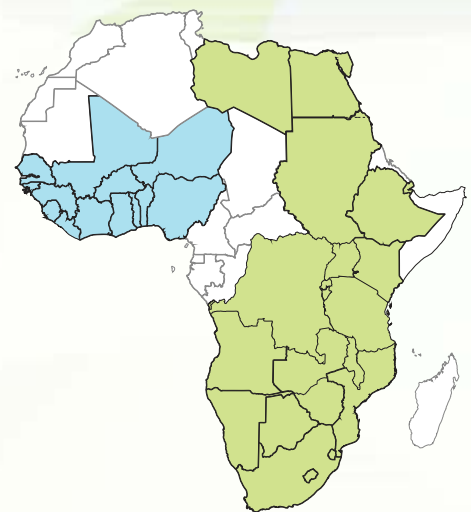
The Africa Clean Energy Corridor (ACEC) aims to boost renewable power deployment, reduce carbon emissions and support sustainable, climate-friendly economic growth. By facilitating a larger electricity market, the initiative could attract sufficient investments to meet half of power needs in eastern and southern Africa by 2030. As such the initiative will contribute to meeting renewable energy objectives stipulated in continent-wide efforts such as the African Renewable Energy Initiative.

IMPLEMENTATION STRATEGY

The ACEC Communiqué, endorsed by the governments of participating countries, calls for identifying the best zones for renewable power plants, creating enabling frameworks for investment, reducing the costs of financing, and facilitating renewable power trade. Regional and country-level capacities need enhancement in order to plan, operate, maintain and govern power grids and markets with higher shares of renewable electricity.

RENEWABLE ENERGY ZONING

A ground-breaking study by IRENA and the US-based Lawrence Berkeley National Laboratory (LBNL) identifies cost-effective and environmentally sustainable development zones for wind, solar photovoltaic and concentrated solar power energy in the countries of the eastern and southern African power pools. Zoning can help countries decide where to pursue ground-measurement and validation campaigns and encourage investors to start pre-feasibility studies. The identified zones for each country are available for viewing and download online on the Global Atlas (globalatlas.irena.org) as well as on mapre.lbl.gov.



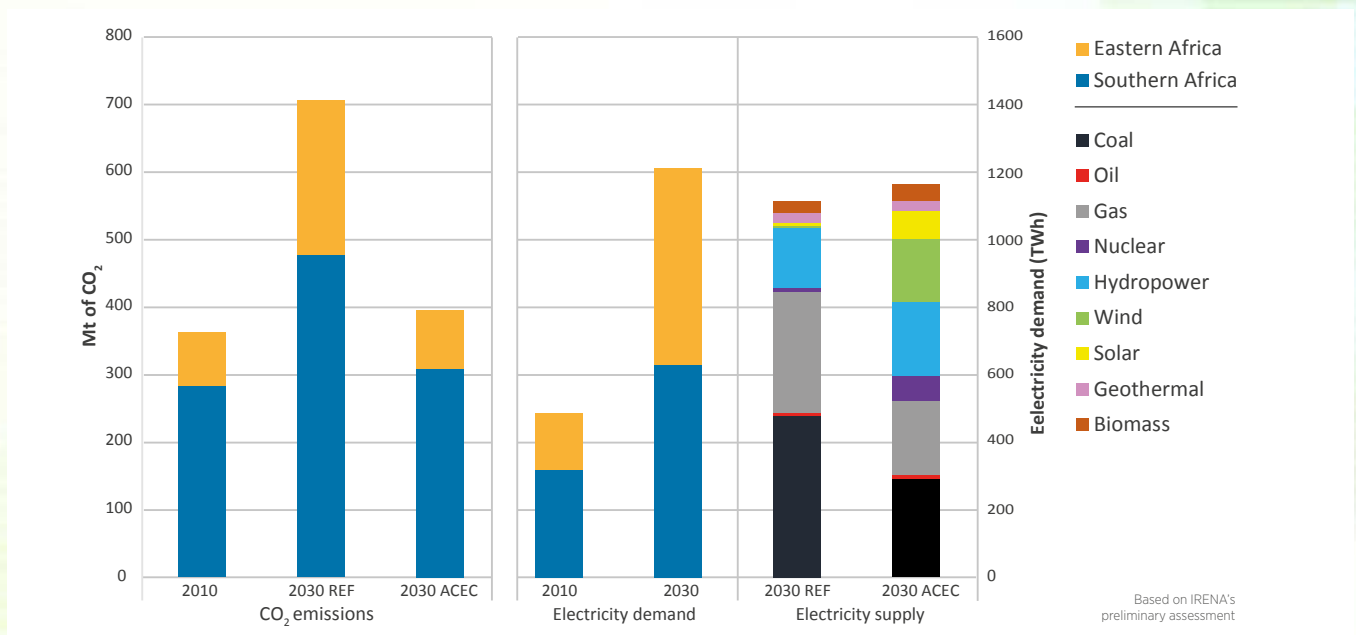
- ACEC countries in the eastern and southern African power pools
- CEC initiative intended to be developed in the west African power pool

REGULATORY EMPOWERMENT

Developing reliable power systems in Africa requires massive investment – up to USD 70 billion per year until 2030. Governments and regulators need to attract private finance, avoid lock-in with fossil-based solutions and integrate variable renewables like solar and wind energy. IRENA provides support to regulators for the development of enabling investment conditions, improving supply security, ensuring affordable consumer prices and stimulating sustainable power trade.

CLIMATE BENEFITS

With the right policy and investment choices, eastern and southern African power pool countries could cut their annual CO₂ emissions by 310 megatonnes (Mt) and save 2,500 Mt in cumulative emissions by 2030, while increasing electricity supply 2.5 times*. In this regard, they will contribute to strengthening energy security, job creation and economic opportunities, putting the regions on a climate resilient and low carbon pathway.



ACEC PARTNERS

The ACEC initiative is supported by the governments of Angola, Botswana, Burundi, the Democratic Republic of Congo, Djibouti, Egypt, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Sudan, Swaziland, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe. The countries of the Economic Community of West African States (ECOWAS) have expressed support for the expansion of the Clean Energy Corridor initiative into their region. The governments of France, Italy, New Zealand, the United Arab Emirates and the United States have also expressed their support for the ACEC initiative.

* compared to 2010 levels

ABOUT IRENA

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that supports countries in their transition to a sustainable energy future, and serves as the principal platform for international co-operation, a centre of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy. IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy, in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity.

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