

Tackling the energy challenge in Africa

Sustainable energy is a key priority for the EIB in Africa, where 57% of the population remains without access to electricity, which in turn hinders the continent's economic development and prevents it from reaching its potential. As it is, the energy sector in Africa is characterised by inefficiency, and below-cost pricing limits necessary investment. There is enormous unexploited potential for renewable energy, however, and almost a quarter of EIB operations in sub-Saharan Africa and over a third in North Africa have supported this sector. The Bank offers finance and technical assistance for projects which help meet the need for accessible and efficient power generation, with a focus on renewable energy and regional integration, all of which will enable Africa to develop its economy.

The EIB and energy in Africa

Access to sustainable and modern energy services is a prerequisite for meeting basic human needs and for economic and social development across Africa. Energy has long been a central focus of the EIB's operations in both North and sub-Saharan Africa, with nearly EUR 4bn invested in the last five years.

Africa has abundant renewable energy sources, such as hydropower, wind and solar. The EIB supports projects that help to exploit these natural resources responsibly, to provide clean affordable energy. This can be done through renewable energy and energy efficiency initiatives, or through generation and transmission projects, which provide regional benefits and stimulate economic growth.

The EIB also supports high-efficiency natural gas power plants and other environmentally sound projects in the gas sector, as part of our efforts to meet growing energy demands in a sustainable way.





The EIB's energy priorities

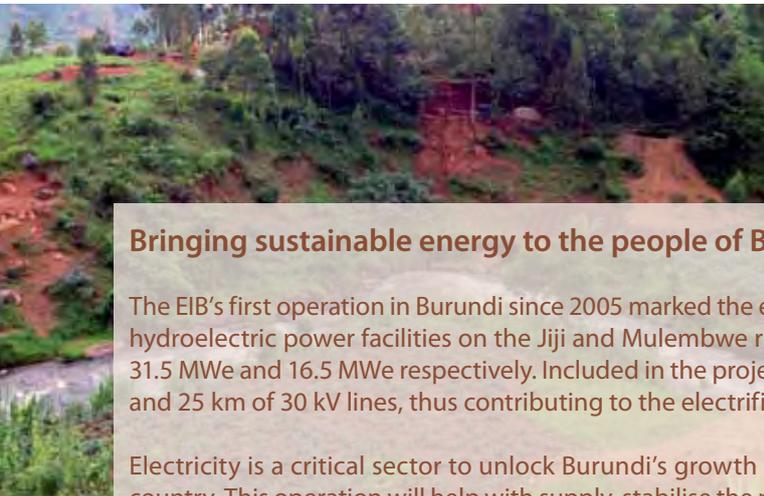
Electricity generation has to be greatly expanded to meet current needs and growing demand on the continent. In line with its commitment to climate action and the need to ensure affordability, the EIB fosters the development of cost-effective renewable resources, including solar, wind and hydropower.

In North Africa, renewable energy currently accounts for a very small share of total energy provision. However, the Bank has developed a range of new tools to support the development of this sector, including in particular the MSP-PPI (see box).

Sub-Saharan Africa has enormous potential in this area. Around 90% of the continent's economically feasible hydropower potential (equal to a tenth of the world's total) remains unexploited. The Bank focuses on large regional and national generation and transmission projects that tap into these abundant resources to stimulate economic development.

Investments in energy networks and their upgrades are required, both to support the integration of renewable sources and to ensure the quality, efficiency and security of supplies. The EIB favours energy projects that promote regional integration, not least because regional cooperation on energy can alleviate the small market problem facing many countries.

Investments in energy efficiency, including domestic, industrial and public usage, help to increase energy availability and reduce energy bills. This in turn promotes wider access, economic competitiveness and growth. Resource efficiency considerations are



Bringing sustainable energy to the people of Burundi

The EIB's first operation in Burundi since 2005 marked the end of the conflict is to invest EUR 70m in the construction of two hydroelectric power facilities on the Jiji and Mulembwe rivers. Once completed, these will have generating capacities of 31.5 MWe and 16.5 MWe respectively. Included in the project is the installation of about 107 km of 110 kV transmission lines and 25 km of 30 kV lines, thus contributing to the electrification of rural communities in the vicinity of the power plants.

Electricity is a critical sector to unlock Burundi's growth potential and contribute to the economic development of the country. This operation will help with supply, stabilise the power grid, reduce transmission losses and contribute to increasing production capacity in clean energy at lower cost for Burundi and its inhabitants. Furthermore, it will contribute to the national goal of raising the household access rate to 35% by 2030 from 4% currently.

The EIB, together with the European Union, has brought funding of up to 49% of the total cost of the project. Co-financed with the World Bank and AfDB, the project will almost double the supply of clean and affordable electricity to the national grid, through the provision of more reliable and less costly energy as an alternative to oil-fired diesel generator units, thus avoiding the release of greenhouse gases.

Clean energy in Burkina Faso

In order to meet the national demand for electricity, Burkina Faso has to supply itself through costly local fuel-based thermal generation or unreliable imports from neighbouring coastal countries. As a result, access to reliable and affordable electricity is a challenge for households and businesses alike.

SONABEL, the national electricity provider, is seeking to change this, starting with the construction of a pilot solar photovoltaic (PV) power plant with a nominal capacity of 30 MW, part funded by the EIB, the European Commission and AfD. Highly concessional financing terms mean that

the unit cost of generation from the plant will not require adjustment of the average rates charged to customers.

By diversifying its generation sources and increasing the share of renewable energy, the project will help mitigate CO₂ emissions and enable SONABEL to keep a balance between its reliance on imported power and securing local clean and affordable electricity.

This shows how the Bank supports pilot projects through technical assistance and long-term concessional financing, which is key to potentially paving the way for the development of other large solar plants in the Sahel region.



incorporated into all EIB projects in African countries, not only those in the energy sector.

Developing new instruments

The EU-Africa Infrastructure Trust Fund (ITF) provides grant funding to regional infrastructure projects in sub-Saharan Africa in support of the Programme for Infrastructure Development in Africa (PIDA).

The ITF has been equipped with a specific funding window dedicated to activities that contribute towards the UN's Sustainable Energy for All (SE4All) objectives. Under this window, the EIB manages, for example, a EUR 25m capital contribution invested as equity in the 300 MW Lake Turkana Wind Farm project in Kenya.

The Bank is also developing a set of innovative financing instruments, including for smaller renewable energy and energy efficiency projects.

These include technical assistance and risk sharing with local banks (Africa Sustainable Energy Facility), advisory and performance-based credits (Renewable Energy Performance Platform) and technical assistance to mobilise credit enhancement (Africa Energy Guarantee Fund). The EIB will also continue its advisory role for the Global Energy Efficiency and Renewable Energy Fund (GEEREF), which leverages private equity investment in small energy efficiency and renewable energy projects.

For the North Africa region, the Bank launched in 2014 CAMENA, a window within the FEMIP Trust Fund in support of climate action. With a GBP 15m (around EUR 20m) initial contribution from the UK Department for International Development (DFID), CAMENA will provide advisory services to catalyse the emergence of new climate investment projects, thus helping to meet increasing demand in the region for a greener approach to growth and development.

The FEMIP Sustainable Energy Facility aims at providing credit lines to local financial intermediaries (FIs) in Jordan and Morocco to finance energy efficiency and small renewable energy investments in the industrial, SME, agribusiness, commercial services and residential sectors. Meanwhile, work is underway to develop a facility which combines financing with targeted technical assistance, based on a study supported by the FEMIP Trust Fund and inspired by the highly successful European Local Energy Assistance (ELENA) programme.

Since 2007, the Energy Sustainability and Security of Supply Facility (ESF) has enabled the Bank to contribute more effectively to the implementation of key EU policies in the sector. In Africa, the EIB has signed three projects under the ESF for a total amount of over EUR 15m.



The EIB: Supporting EU development cooperation in Africa

As the bank of the EU, the EIB works to support the implementation of EU development policies. It contributes to the EU response to the UN Sustainable Energy for All (SE4All) initiative, as well as to the EU Agenda for Change and the Joint Africa-EU Strategy.

In Africa, the EIB works under its External Lending Mandate (North Africa and Republic of South Africa), the Cotonou Agreement (sub-Saharan Africa), and its climate change mandate.

In sub-Saharan Africa, the EIB finances and advises on projects under the Investment Facility revolving fund, as well as from its own resources. It also blends loans with grant funding for technical assistance, including from the EU-Africa Infrastructure Trust Fund.

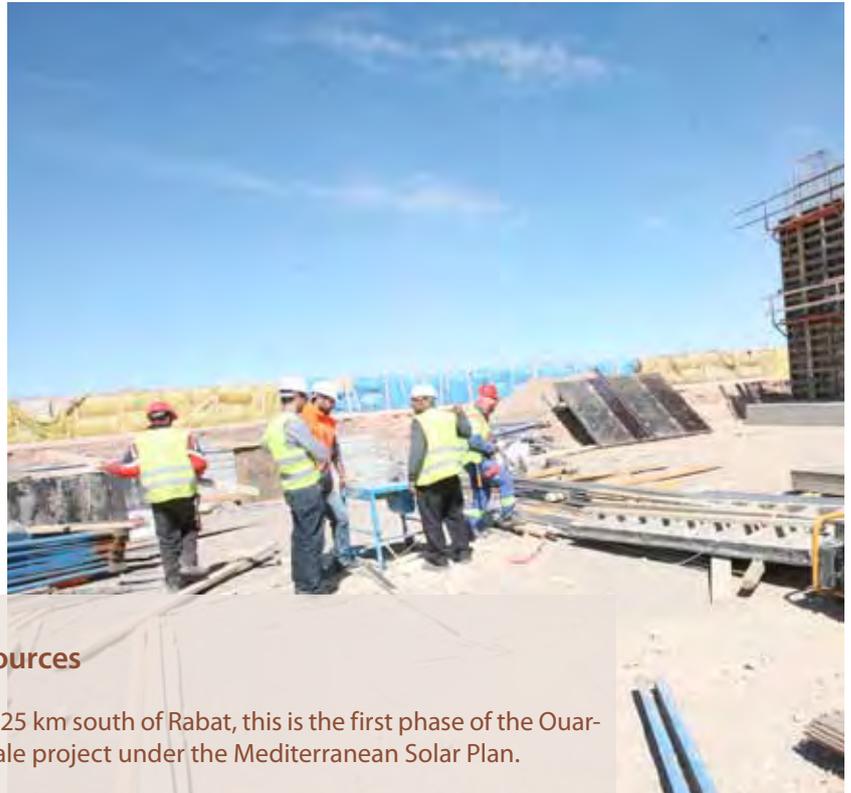
The Facility for Euro-Mediterranean Investment and Partnership (FEMIP) groups together all of the Bank's services for the North Africa region. Alongside lending operations, FEMIP provides technical assistance and advisory services, notably through the FEMIP Trust Fund. The European Commission's Neighbourhood Investment Facility (NIF) is an important additional source of resources for blending with EIB financing.

The main focus areas of the EIB in South Africa continue to be based on the Joint EU Country Strategy Paper for South Africa. In particular, the Bank will remain focused on priority investments in social and economic infrastructure (including power, water and municipal infrastructure), on private sector support and on climate action related projects.

Boosting Mediterranean solar power through technical assistance

The EIB has led the establishment of the Mediterranean Solar Plan Renewable Energy and Energy Efficiency Project Preparation Initiative (MSP-PPI). Our support is based on experience gained over 30 years in the region. This initiative, funded by a grant of EUR 5m from the European Union under the NIF, is designed to support the preparation of energy efficiency and renewable projects, accelerating the implementation of up to 20 related projects in the Mediterranean partner countries.





Harnessing Morocco's huge solar resources

Located in the south-west of Morocco, about 525 km south of Rabat, this is the first phase of the Ouarzazate solar power complex and first large-scale project under the Mediterranean Solar Plan.

Supported by a EUR 345m EIB loan, the plant will use parabolic-trough concentrated solar power (CSP) technology. Mirrors will concentrate a large area of sunlight, which will then be converted to heat to drive a turbine connected to an electrical power generator.

The EIB has also provided its technical expertise in renewable energy to improve the Ouarzazate project's bankability and help with the preparatory studies, in particular those related to procurement and the environment.

The plant will generate up to 160 MW of electricity per year, with three hours of energy storage at full load, avoiding CO₂ emissions of 151 000 tonnes per year. The overall complex is planned to hold up to 580 MW of capacity, which would be enough to power a city of 1 157 000 households.

Once it is fully developed, the Ouarzazate solar complex will be one of the largest in the world. It will bring renewable energy and energy security to Morocco, as well as creating jobs: 4 400 during construction, 210 permanent, and the vast majority for local people. In the future, part of the output may be exported to the EU.