As part of its partnership with the Kenyan authorities in the energy sector, AFD supports the structuring of the national electricity grid by supporting the setting up an electric ring around the capital.

08/06/2012
Project start date
Nairobi
Location
Energy sector(s)
Sovereign Concessional Loan financing tool(s)
78 500 000 EUR
Financing amount

Republic of Kenya
Kenya Transmission Company (Ketraco)
Beneficiaries
Context

With 10% of the population connected and more than 50% demand in electricity,
the situation of electricity transmission network in the Nairobi metropolitan area is particularly critical. Ketraco's option for Nairobi is to strengthen the Kenyan grid by creating a ring around the Nairobi agglomeration, on the one hand by reinforcing the existing grid that bypasses the agglomeration by the East, and on the other hand by building a 400 kV line that will bypass it by the West. The latter line, initially operated at 220 kV, will form the backbone of the future 400 kV regional grid linking Ethiopia, Kenya and Tanzania.

Description

The Nairobi network reinforcement project includes: the 220 kV Suswa substation, which will make it possible to connect Olkaria geothermal power plants, Lake Turkana Wind Farm, the sub-stations of Isinya and Nairobi North, the Suswa-Isinya transmission grid, approximately 100 km (400 kV), which will initially operate at 220kV, before operating at 400 kV when the interconnections with Ethiopia and Tanzania are operational, with the 220 kV substation at Isinya, as well as the supply of four 220/60 kV substations at Athi River, Ngong, Thika Road and Koma Rock sites. Connection lines between different substations will also be carried out.

Impacts

The purpose of the project is to support the country's economic growth by providing reliable, economical and largely low-carbon energy. The project will: improve uninterrupted supply in the city of Nairobi and thus encourage the social and economic development of the city and the country, the release of energy generated by geothermal power plants in Olkaria, the wind farm at Lake Turkana and thermal power stations near Mombasa and the long-term interconnection of Ethiopia and Tanzania as part of the East Africa Power Pool.