

LAKE TURKANA WIND POWER

Reducing the need for fossil fuels in Kenya, the Lake Turkana Wind Power project was connected to the national grid in 2018. The wind farm is the largest of its kind on the African continent

Background

In Kenya, new, clean and affordable energy sources are being developed to expand power supply and to displace more expensive and polluting energy produced by fuel oil and diesel power plants. Today the Lake Turkana Wind Power Plant provides almost 17 percent of the country's installed capacity. President Kenyatta has expressed that by 2020 Kenya will use only clean energy.

17%
Lake Turkana provides 15-17% of the country's installed capacity.
75%
of the workers employed during the construction of Lake Turkana were local residents.

Complexity

The 310 MW Lake Turkana Wind Power project (LTWP) is Kenya's largest single private sector investment and one of the most challenging power financing in Sub-Saharan Africa. Norfund was among the first investors, supporting both the development of the project and providing equity. Constructing 365 wind turbines and a high voltage substation in an arid and remote area was challenging. In addition, more than 200 km of road was upgraded to transport equipment from Mombasa to the site. To enable the plant to be connected to the national grid, the Kenyan government built a 428 km long transmission line.

The project will increase electricity supply, reduce our reliance on thermal generated electricity and insulate Kenya from supply constraints during periods of low water level. Indeed it should be noted, that without the wind power project, the fuel cost charge would have been higher [..]. This is a combined saving to Kenyans.

Our Impact

Since becoming operational, electricity from LTWP has enabled Kenya to save costs and reduce CO2 emissions by avoiding production from fuel oil plants. In addition to providing a reliable, low-cost source of clean energy for Kenya's population, the LTWP project provides opportunities for the local communities near the plant. The construction of the new road has had positive impacts on local communities by reducing the time and costs of transport and has helped to increased trade in the region. A number of initiatives to improve the local population's access to drinking-water, health services and

education is established. In addition, more than 2,500 people were employed during the LTWP construction period, 75 percent of whom were local residents.

The connection to the national grid was a huge milestone for this ground-breaking and transformational project. We hope the project will inspire investors and governments to follow suit and help realise the potential of renewable energy in Africa.