

WIND POWER

FOR GHANA

- ...Renewable
- ...Inexhaustible
- ...Independent
- ...Home Made



Wind is a secure and clean "fuel". There is no risky waste, no cost to bring it to Ghana and it will never run out. NEK Umwelttechnik and its partners are aiming to boost the emerging technology of wind power in Ghana.

The development and construction period of wind parks is very short. Hence, the proposed projects in the Greater Accra Region can soon provide renewable solutions to the country's electricity lack ("Dumsor").



ENVIRONMENTAL AND SOCIAL VALUES

Our ambition is to develop wind parks that do not only deliver clean and renewable energy, but also fulfill high social and environmental standards.

Comprehensive Environmental and Social Impact Assessments (ESIA) are thus conducted for all the planned wind parks according to guidelines of the World Bank and the Ghanaian Environmental Protection Agency (EPA). Herewith, potential risks are identified and mitigation measures can be derived. In doing so, adverse environmental and social impacts are prevented or minimized. This includes reduction of impacts on birds, reduction in emission of noise, occupational health and safety as well as public safety measures.

EXPERIENCED DEVELOPERS

NEK Umwelttechnik AG, which was established in 1989, is a Swiss engineering company active worldwide in several application fields related to renewable energy, mainly wind park developments. With over 25 years of experience in the RE sector, NEK is an expert in specialized management and engineering services related to wind energy. The company is active in Ghana since 1998.

NEK (Ghana) Ltd. is one of NEK's affiliated branch offices based in Accra and works on project developments in Ghana.

ENERCON GmbH is the fourth-largest wind turbine manufacturer in the world and has been the market leader in Germany since the mid-nineties. Enercon has production facilities in Germany, Sweden, Brazil, India, Canada, Turkey and Portugal. ENERCON has more than 20,000 employees worldwide and installed more than 29,000 wind turbines, with a power generating capacity exceeding 50 GW.

BENEFITS OF WIND FARMS

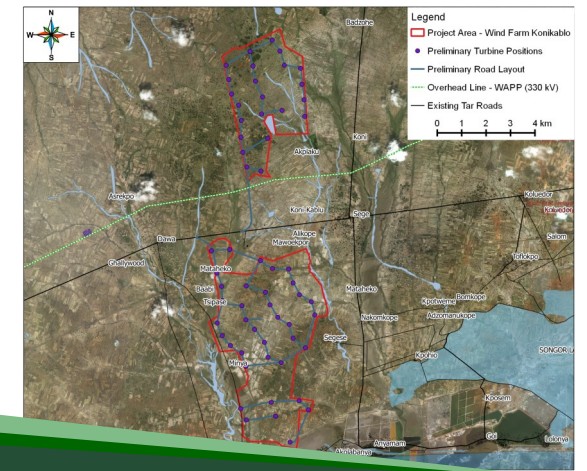
- Renewable and clean
- Free "fuel"
- Local job creation
- Additional income from land lease
- Improvement of access roads
- Community benefit projects

WIND FARM

Greater Accra Region
Ningo-Prampam District
Ghana

KONIKABLO

Up to **200 MW** installed
power and approx. **570 GWh**
annual energy production



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LOCATION

The project site is located in a sparsely populated area in the Ningo-Prampam District, around 65 km east of Accra, north and south of the Accra-Aflao-Road and between the villages of Dawa and Sege. The river Sege forms the eastern boundary of the project site and the river Palopa the western. The Konikablo Wind Farm will be constructed over an area of approximately 9,400 acres. The location offers good and steady wind conditions, a simple road access, little environmental constraints and also an easy grid connection nearby.

PARK DESIGN

The park design accounts for adequate turbine spacing and sufficient distance to houses. Since wind turbines only require about one acre of land per turbine, farmers can continue cultivating their land around the turbines. The project area was mapped by NEK using a mini-drone to gather high-resolution data of the terrain and land cover. This ortho data, together with precise wind data, serve as inputs for modelling and optimizing the layout of the wind farm.

LIFE TIME

The construction time of the wind park will take 12-18 months and the project lifetime is 25 years.



KEY FIGURES

- ⚡ ≤200 MW installed power
- 🌪️ ≤60 wind turbines with ≤160m hub height
- 🔌 up to 570 GWh clean and home made energy per year
- 🌫️ up to 220,000t reduction of CO₂ eq. per year
- 🏗️ nearby grid connection at the 330kV WAPP line
- 🛠️ project area of 42 km²
- 👥 600 new jobs during construction and also a substantial amount of jobs during operation

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