

Lake Turkana Wind Power to take full advantage of digitisation

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Lake Turkana wind farm in Kenya. Credit: Lake Turkana Wind Power.

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Software as a service company Clir Renewables has today announced a partnership agreement with the Kenyan-based Lake Turkana Wind Power (LTWP).

Kenya has committed to meeting a growing demand for electricity with 100% renewable generation, to bring down both national emissions and electricity costs. LTWP's flagship 310MW wind farm has been sited in a region with consistently strong, unidirectional winds.

With the wind farm now operational, LTWP has turned its focus on ensuring that the wind farm is able to take full advantage of this optimal resource, and, ultimately deliver consistent, high yield returns for its investors.

As such, LTWP has entered into a partnership with Clir, who will analyse data from each of Lake Turkana's 365 turbines in the context of available resource, geospatial features, and nearby turbines.

Through its machine learning-driven analysis, the software company "will be able to see through the 'noise' of resource fluctuation and identify any instances of underperformance and their causes, providing LTWP with the insights necessary to increase annual energy production, monitor asset health and manage technical financial risk" explained a press statement.

Clir's team will further use this analysis to compare individual asset performance at a project, portfolio, and industry level, with insights shared with all project stakeholders via its reporting function.

David O'Hare, Director for Europe at Clir, said: "Lake Turkana is a particularly unique project – it's the first of this scale in Africa and has been developed to take advantage of some of the best conditions for consistent energy production. Having worked across a number of large-scale, unique projects around the world, we are keen to leverage our wide-ranging experience to assess Lake Turkana's current performance and potential gains.

"We are delighted to provide access to our industry-leading analytics and the team's global expertise in support of LTWP as it realises the full potential of this project and the region's incredible resource, both in terms of energy generation and resulting returns – a share of which we are delighted to see has been committed to the company's corporate social responsibility arm, the 'Winds of Change Foundation'."

Wellington Otieno, chief technical officer at LTWP added: "We are committed to making sure this project produces beyond our expectations. With Clir, our team of local technicians will be supported with the most up-to-date digital tools and analytics to target operations and maintenance and cut unnecessary asset downtime.

"With our turbines performing at their best, we will be in a position to supply Kenya with consistent, low-priced, green energy. We are pioneering wind energy generation at scale in Africa, and look forward to working with Clir to fully optimise performance and show the rest of the continent, and indeed the world, what green energy possibilities there are here. Our hope is that LTWP will encourage many more wind energy farms in our continent as we work towards protecting our environment."

Wellington continued: “A portion of LTWP’s revenue goes to the ‘Winds of Change’ foundation, which works with local communities to enable greater access to healthcare, clean water, and education in line with their own priorities. By maximising annual energy production from the project based on insights delivered through in-depth performance monitoring, we can likewise deliver greater community benefits.”