

Djibouti inaugurates first wind farm, pioneering renewable energy ambitions

President Ismail Omar Guelleh marked a significant milestone by inaugurating Djibouti's first wind farm on Sunday. This achievement aligns with his goal of making Djibouti the first African nation to rely entirely on renewable energy sources for electricity by 2035.



Source: World Bank

The Red Sea Power (RSP) wind farm, situated near Lake Goubet, will generate 60MW of clean energy. This capacity boost represents a 50% increase and will prevent approximately 252,500 tonnes of CO₂ emissions annually, akin to the pollution produced by over 55,000 buses. Valued at \$122m, the RSP project, led by Africa Finance Corporation (AFC) with partners FMO, Climate Fund Managers (CFM), and Great Horn Investment Holding (GHIH), signifies the inaugural major international investment in Djibouti's energy sector.

It also establishes the nation's initial independent power producer (IPP) and lays the foundation for future private sector involvement. An additional 45MW of renewable energy is already in the pipeline from the same investor consortium. This development demonstrates Djibouti's commitment to sustainable energy and paves the way for further advancements in the sector.



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Until now, Djibouti has been entirely reliant on power generated from imported fossil fuels, as well as hydrogen generated power imported from neighbouring Ethiopia. Less than half of the 123MW of domestic installed capacity is operational due to outdated diesel plants. Critically for the East African nation, the new clean energy will spur industrialisation, job creation and economic stability as Djibouti seeks to take advantage of its strategic location as a global transshipment hub.

With its extensive coastline and dedicated port facilities positioned strategically along the Red Sea and the Gulf of Aden, Djibouti has a central role to play in the global energy market. The country has enough wind, solar and geothermal resources to triple existing capacity to at least 300MW. It also has one of the world's highest concentrations of foreign military bases due to its location at the entrance to the Bab el-Mandab strait, the passageway for 30% of global trade.

Djibouti's new wind farm provides an opportunity for these bases and other enterprises currently outside the grid to decarbonize and replace their mostly diesel-generated power with clean energy.

Diversify the economy

Leveraging its seaports to diversify the economy, Djibouti set out to build an industrial zone in 2017, sparking preliminary discussions on boosting energy capacity. The consortium for the wind farm was formed in 2018 and subsequently provided all-equity construction bridge financing via AFC, FMO, CFM's Climate Investor One fund, and GHIH, which propelled the project to achieve financial close in a record 22 months. Construction kicked off in January 2020 and continued at pace despite the global supply challenges caused by Covid-era lockdowns.

Today, the wind farm spans 387 hectares, equivalent to over 700 football pitches. The site's 17 Siemens turbines each produce 3.4MW, served by a robust 220 megavolt amperes (MVA) substation and connected by a 5km overhead transmission line to the local grid operator and warehousing.



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The electricity generated is to be sold under a long-term power purchase agreement to Electricité de Djibouti (EDD), the national state-owned utility. Using the project as a template for future IPPs, the Government of Djibouti is already working on several other plants for additional geothermal and solar capacity.

The project stands out as a demonstration of the use of innovative equity financing to accelerate development impact through de-risking, while showcasing the commercial viability of transformative projects in Africa, thereby crowding-in diverse capital sources, and enabling replication of similar projects at reduced financing costs.

Abundant resources

"We congratulate the President and people of Djibouti along with our Partners on this significant milestone towards advancing energy access in Djibouti through renewable wind energy," said Samaila Zubairu, president and CEO of the Africa Finance Corporation.

"The equity bridge construction finance solution that we deployed has mitigated construction and completion risks, clearly demonstrating AFC's solutions-focused, derisking and execution capabilities, as well as introducing a pragmatic way to fast track financial close for projects in Africa."

"Djibouti has abundant renewable resources for sustainable and clean energy production," said Aboubaker Omar Hadi, chairman of Great Horn Investment Holding (GHIH). "Our aim is to be the first country in Africa to be 100% reliant on green energy by 2035. Investment in renewable energy infrastructure is the key to enabling our ambitions, and the inauguration of the groundbreaking Red Sea Power wind farm today is a major milestone," he continued.

"A reliable and cost-effective energy solution is vital to drive Djibouti's infrastructure growth. With the development of Industrial Free Zones projects, we estimate that the country faces a projected demand of 3,700MW in the next decade. Tapping into renewable resources like solar, geothermal, wind and tidal is crucial to bridge this gap."

"The inauguration marks a leap forward in closing Djibouti's energy access gap and ensuring energy sovereignty, supporting the country's long-term social and economic development," said Michael Jongeneel, CEO of FMO.

Political risk covered by the World Bank

In addition to the socio-economic impacts of the project, the innovation in the transaction structure itself has the potential to create systemic impacts by encouraging more investments in the region. The transaction structure substantially reduced the risk associated with the investment. EDD's payment obligations under the power purchase agreement (PPA) were backed by a government guarantee, and in turn the government's obligations were also backed by political risk cover provided by the World Bank's Multilateral Investment Guarantee Agency (MIGA).

"It is testimony to the power of blended finance," added Andrew Johnstone, CEO of Climate Fund Managers.

"Groundbreaking transactions like this are immensely challenging to fund with traditional project finance as the territory is uncharted and there is no track-record, making it almost impossible for lenders and equity partners to get comfortable with the risk."



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"Blended finance combines both concessional and commercial capital, enabling investors to take a higher share of risk and providing a single source of funding from development to operations. In this case, we believe the project simply would not have been possible without a blended approach."

Francois Maze, CEO of Red Sea Power, said: "Access to electricity is vital for business growth, job creation, education, healthcare, social services, and infrastructure. In a country currently served entirely by fossil fuels and electricity imports, large-scale renewable energy solutions are urgently needed to mitigate and increase resilience to climate change."

"Today's inauguration is an important milestone in Djibouti's aim to be entirely served by renewable energy sources by 2035. We are proud to be part of that journey and thank all of our partners for their support over the last five years to turn our ambition into a reality."

Additional desalination

In addition to the new wind farm, the Red Sea Power partners have built a solar-powered desalination plant that was also inaugurated. The plant will provide drinking water to villages near the farm. Some parts of Djibouti are currently experiencing a major national water crisis, with 20% of rural areas lacking access to clean water. Many households have insufficient water to meet basic needs, particularly during the dry season, resulting in widespread loss of livelihoods and income.

The desalination plant extracts water directly from the sea using a pre-treatment process that removes the salt to produce

drinking water. It will supply 800 residents of two villages near the farm with access to around 40 litres per day, reducing the risk of water-borne diseases and increasing time in education as children are frequently sent out to collect water.

RSP has delivered 80,000 litres of water a week since 2020 as an interim solution while the plant was being constructed. The goal is for the wind farm to power larger desalination plants in the future.

A further component of the project is helping conserve local biodiversity by monitoring migratory and resident birds to assess any changes in the numbers or behaviour, including endangered species such as Egyptian vultures (*Neophron percnopterus*).

Although Djibouti plays a crucial role as a migration corridor and wind farms typically carry the potential of risk causing bird collisions, the project's geographical location beneath the northeastern high mountains makes it an ideal site for harnessing wind energy while minimally affecting avian populations.

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