

## Taiba N'Diaye wind farm (158 MW), Senegal

### Summary

- Taiba N'Diaye is the first utility-scale wind power project in Senegal, and is a critical component of the Government of Senegal's Plan Senegal Emergent.
- The wind farm will provide up to 158.7 MW of much needed clean, reliable and competitively-priced energy into the rapidly expanding national grid.
- The project will deliver a 15% uplift to generation capacity in Senegal.
- The project will consist of 46 wind turbines that can produce 3.45 megawatts each.
- Construction has begun at Taiba N'Diaye, with power expected to begin transmitting to the grid in November 2019.
- The wind farm will provide employment opportunities during construction of the project, as well as increasing socio-economic activity in the local area.
- The project benefits from strong government and local community support, and will implement an extensive social investment programme, estimated to contribute up to US\$20m over the life of the wind farm.
- The project will create a legacy in Senegal, helping create a sustainable future for the country.



## Project construction

The project, which is Senegal's first utility-scale wind farm has now begun construction. The project will be fully operational in less than 2 years time. Once completed, the Taiba N'Diaye wind farm will provide a 15% uplift to generation capacity in Senegal.

The project will consist of 46 Vestas V126 wind turbines that can produce 3.45 megawatts each. The wind turbines received type certification in January 2017 and are some of the latest versions of onshore wind turbines available currently, building on Vestas' proven wind turbine technology. They utilise a 117m tubular steel tower and a blade length of 61.7m giving a very large swept area of 12,469 m<sup>2</sup>, allowing the wind turbines to maximise the amount of energy captured from the wind.

## Security of Supply

Senegal currently depends on imported fossil fuels for much of its power supply. Reserve capacity presently is at times insufficient, while transmission losses as well as old thermal power plants result in high production costs.

Being the first utility-scale wind power project in Senegal, the project forms a critical component of the Government of Senegal's strategy to increase clean electricity production, diversifying Senegal's energy mix, and ensuring affordability.



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Lekela is a renewable power generation company that delivers utility-scale projects which supply much-needed clean energy to communities across Africa.

Through a platform built to develop, own and operate wind and solar assets, Lekela draws from its team members extensive experience, and from its founder shareholders decades of proven energy heritage. Lekela has the skills and drive to progress projects from mid or late-stage development into long-term operation. As a result, Lekela delivers sustainable, reliable and competitively-priced power to governments, utilities and large-scale industrial projects.

Lekela's current portfolio includes more than 1,300 megawatts across projects in Egypt, Ghana, Senegal and South Africa.

## Cost of Fuel

The wind resource is free and clean, and unlike imported fossil fuels, will not impact on Senegal's balance of payments. The project will also be one of the lowest cost producers of electricity in Senegal.

## Socio-economic benefits

The project will create numerous job opportunities during construction both directly and indirectly for the Taiba N'Diaye community who will benefit financially and in terms of improved skills and knowledge. This will lead to better future employment prospects for community members.

The project has begun the implementation of an extensive social investment programme in and around Taiba N'Diaye. This helps create sustainable livelihoods for communities, improving agriculture and provides vocational training opportunities for youth. It is estimated that over the life of the project such investments will contribute up to US\$20m. Programmes are underway to boost the region's mango economy, revamp the local marketplace and increase IT resources in schools.

