

WIND POWER

Energising Football

Eastern Cape wind farm to supply power to World Cup stadium

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The 25-turbine Coega wind farm project in the Nelson Mandela Bay Municipality (NMBM), in the Eastern Cape, was officially launched by Energy Minister **Dipuo Peters** earlier this month.

Emil Unger, the South African representative of Belgium-based Electrawinds, explained that the first turbine would be erected as soon as the wind died down, and completed in time to provide energy for the Nelson Mandela Bay stadium during the 2010 FIFA World Cup – free of charge.

Switch-On Date

“It’s our way of giving back to the city,” Unger told *Engineering News*, and added that the official switch-on date was May 30.

Working within a very tight time schedule, Electrawinds explained that the first wind turbine units arrived from Denmark on May 9, on board the *Red Cedar* at the Port of Ngqura.

The wind turbine is a Vestas V90 with a 95-m tower and a 90-m rotor.

The independent power producer would use a custom R70-million crane from Vanguard to erect the wind turbines.

Electrawinds MD **Luc Desender** said that the company had already laid the foundation work for the wind turbine.

This consisted of the placement of the embedment unit and the pouring of some 620 m³ of concrete.

Electrawinds has invested R1,2-billion in the project, and each of the 25 wind turbines will have a capacity of 1,8 MW, which translates into an annual yield of 5,7-million kilowatt hours, which is said to be enough energy to power about 1 700 households.

Green Energy

Completion is scheduled for 2011, and, once completed, the wind farm will supply the NMBM with about 45 MW of green energy.

The electricity generated by the wind farm will be fed into the national grid and will be distributed by the NMBM to households within the area.

Unger explained that Electrawinds was in the process of completing a power purchase agreement under the ‘willing seller, willing buyer’ model, although the company could not divulge the buyer at this stage.

The name of the buyer would be disclosed shortly, as soon as the agreements had been finalised.

STORY HIGHLIGHTS

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Desender noted that the start of construction marked the first commercial wind project in South Africa and Electrawinds’ first operational project outside Europe.

“We want to invest not only in turbines but also in people. Electrawinds is committed to establishing an education fund for students interested in renewable energy.

“Three engineering students are currently studying at Nelson Mandela Metropolitan University,” explained Electrawinds business development director **Jan Dewulf**.

Overall, 133 indirect construction jobs, 55 construction jobs and 12 permanent jobs would be created during the building of the wind farm.

Desender said 50 jobs were created during the construction phase of the foundation.

Coega Development Corporation CEO **Pepi Silinga** commented that the Electrawinds project would provide the Eastern Cape province, and specifically the Nelson Mandela Metro, with electricity security as well as access to the latest technology in renewable energy.

Competition

The electricity produced by Electrawinds wind turbines would not be in competition with Eskom, as wind energy was not a replacement for Eskom, but rather an alternative energy.

“According to National Energy Regulatory rules, there is a difference in price between wind energy and energy produced from coal but it will not directly affect consumers,” said Electrawinds, referring to the renewable-energy feed-in-tariff.

“In Belgium, Electrawinds is one of the pioneers of renewable energy and has, in the meantime, built up great know-how.

“It is now our ambition to fulfil that pioneering role in South Africa as well.

“There is great support there for renewable energy and this offers good prospects.

“Further, it is my personal dream to reserve the first green electricity of Electrawinds in South Africa for the 2010 football world championship,” added Desender.