ArcelorMittal South Africa invests in the wind energy sector

ARCELORMITTAL South Africa has over the last few years fulfilled a pivotal role in the wind energy sector by providing high-strength structural steel for wind towers and concrete-reinforcing bars for foundations.

The company is now preparing to grow this part of the business by working in partnership with all tower manufacturing facilities in South Africa.

These facilities include DCD Wind who commissioned their facility in Coega recently and has the capacity to produce 110 towers per year and Gestamp Renewable Industries (GRI), who is in the process of constructing a wind tower manufacturing facility in Atlantis in the Western Cape. This facility will have the capacity to produce 150 wind towers per annum.

As part of ArcelorMittal South Africa’s strategy to increase supply of the very heavy plates required by wind towers, the company is also in the process of finalising the upgrade of its Plate Mill to produce plates of up to 11 tons of steel.

This upgrade is planned for the fourth quarter of 2014 and the production of heavier plates will commence from January 2015.

This project will not only enable the company to increase throughput, but also to increase market share by reducing the need to import these heavy plates.

"At the same time ArcelorMittal South Africa is undergoing discussions with some of the major International Wind Tower OEM’s like Nordex, Siemens and Vestas to supply steel for more wind farms in rounds two and three of government’s renewable energy initiative," adds Jan Kotzé, Product Manager for Plate & Renewable Energy Projects at ArcelorMittal South Africa.

Round one of the wind energy programme to supply 634 megawatts (MW) of wind energy was initiated in 2013 and will reach completion in 2015.

This round involves building eight wind energy farms across the Eastern and Western Cape.

These include Dasieklip Wind Energy, Metrowind; Van Stadens, Hopefield Wind Farm (Saldanha); Noblesfontein; Red Cap Kouga Wind Farm; Oyster Bay, Dorper Wind Farm; Queenstown, Jeffrey’s Bay Project and the Cookhouse Wind Farm.

Round two of the wind energy programme, comprising of seven wind energy projects, is currently underway and will see 565 MW of wind energy generated upon completion of the project.

"ArcelorMittal South Africa’s role in round two of the wind energy programme is to supply steel for 20 wind towers to a Vestas Wind Farm called the Grassridge Wind Energy facility situated in Eastern Cape. The total requirement for these towers were 3,000 tons of steel where ArcelorMittal South Africa have provided 2,200 tons and the remaining 800 tons have been imported from Gigon in Spain," adds Kotzé.

Round three of the wind energy project to produce 787 MW of wind energy, targets seven projects and will reach completion post 2016.

"The provision of wind energy projects forms part of the Government's Integrated Resource Plan (IRP) which aims to supply a total of 3,725 MW of renewable energy by 2016 and 17,800 MW by 2030. South Africa has fair wind potential especially along the coastal areas of the Western and Eastern Cape and is a prime location to implement wind energy which forms part of the government’s renewable energy strategy to manage electricity usage and reduce the use of coal as an energy source.

"Steel is used to create more than 80% of the components required to build wind turbines. Valued for its strength, flexibility and durability in the field, steel is also 100% recyclable, making wind energy truly renewable,” concludes Kotzé.