

# Winds of change

ArcelorMittal and Siemens cooperate to supply the next generation of wind farms.

In recent years there has been a steady growth in the number of wind-power generation projects around the globe. ArcelorMittal is very active in the sector as a leading supplier of heavy plate for traditional welded towers and electrical steels for the turbines. Siemens is a major player in the implementation of wind farms with more than 11,000 turbines installed worldwide. Although Siemens and ArcelorMittal already have a long history of cooperation, Siemens was looking for a long-term steel partner who could match their global footprint and provide them with the expertise and technical experience the company needed for success in the wind power segment.

ArcelorMittal and Siemens are now working closely together to build the next generation of wind-power plants.

For Siemens, one of the prime considerations was the ability of their steel supplier to guarantee stable lead times. With wind towers using up to 180 tonnes of heavy plate and up to 175 individual turbines in a wind farm, the logistics of ensuring just-in-time deliveries of steel are critical for success. The heavy plate is used to construct both the tower and, in offshore installations, the jackets that keep the turbine stable on the sea floor.

#### Global customer team

To meet the Siemens challenge, ArcelorMittal established a global customer team including technical experts, representatives from the mills, and marketing and sales personnel. This team worked closely together to respond quickly to the customer's requirements – imperative in such a complicated supply chain. The team also undertook research and development activities in order to maximise cost savings for the client.

ArcelorMittal is already a well-regarded supplier of heavy plate from a number of our mills around the world. One of the largest is ArcelorMittal Gijón in Spain, ideally situated to meet Siemens European needs.

In November 2010, Siemens placed a trial order for heavy plate to build 21 wind towers at the Hill of Towie Wind Farm in Scotland. Thanks to the work of the ArcelorMittal customer team and the Gijón mill, the first plates were shipped in January 2011.

With the success of the first order, Siemens placed an additional order for hot rolled coils of high strength steel to build a new generation of 'shell' towers. Unlike other wind towers, shell towers can be higher than normal and are held together using bolts rather than welding.



#### Production and processing

To answer the growing demand from Siemens in Northern Europe, an entirely new supply chain was developed and implemented. All supplying units (including external suppliers) were extensively audited by Siemens before they could be integrated into the supply chain.

ArcelorMittal also took on the challenge of both producing and processing the heavy plate. Processing is handled by ArcelorMittal's partners who are located close to our Gijón mill. Together we have built a competitive offer for Siemens which is unbeatable in terms of quality. The added value ArcelorMittal and our partners are able to offer also creates significant cost savings for Siemens.

As a result of this cooperation, Siemens and ArcelorMittal agreed on a long-term contract for the supply of heavy plate for Siemens' wind turbine needs at the end of 2011. The agreement was possible thanks to ArcelorMittal's proven ability to understand and meet the customer's needs, our global footprint, and speed of delivery. ArcelorMittal and Siemens are now working closely together to build the next generation of wind-power plants. ■

#### About Siemens

Siemens is the largest European-based engineering and electronics company with interests across the world. The company is active in a number of sectors including mobility, industry, construction, and renewable power generation.

In the field of renewable energy, Siemens Wind Power is a leading supplier of wind power solutions for onshore, offshore and coastal sites. With over 30 years of experience and more than 11,000 wind turbines installed around the world, Siemens offers integrated solutions and services that meet the demands of wind markets around the globe.

#### Big is beautiful

Large-scale wind power plants are becoming increasingly common around Europe. Siemens is currently implementing the London Array offshore project. Siemens will supply 175 of its SWT-3.6 wind turbines to the London Array, which is jointly owned by DONG Energy, E.ON and Masdar. Upon completion, the London Array will be the largest offshore wind farm in the world with a capacity of 630 megawatts (MW). There is also an option to further expand the wind farm up to 1,000 MW in the future.