

Gamesa Obtains Type Certification For The G128-5.0 MW, Its First Offshore Turbin

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Gamesa, a global technology leader in wind energy, has secured type certification for its first offshore wind turbine, the G128-5.0 MW Offshore, from DNV-GL, an accredited independent body.

This milestone completes the process of certifying the company's first offshore product - in less than seven months - and constitutes an endorsement for the platform's technology that in turn bolsters the marketing and industrialisation processes.

The G128-5.0 MW wind turbine prototype, the first offshore model in the 5.0 MW platform, has a rotor diameter of 128m and a total height of 154m. The turbine is notably lightweight, which reduces the cost of related wind farm civil engineering work. The G128-5.0 MW Offshore is capable of generating enough power to supply 5,000 households a year. Since it began to generate electricity in the summer of 2013, the prototype has injected more than 6,000 MWh into the grid.

These characteristics, which make the platform more robust and reliable, facilitated an availability reading in January of 97%, no easy feat for a prototype still at the validation stage. In November 2013, the prototype beat another record, producing the most electricity ever generated by a single turbine in Spain in one day: 118.05 MWh.

Certification of the offshore turbine marks a new landmark in Gamesa's offshore strategy. To further advance this strategy, Gamesa has entered into a joint venture agreement with Areva with a view to creating a leading player in the offshore wind energy segment.

The G128-5.0 MW Offshore turbine is built using technology proven and validated by the company in its 5 MW platform and leverages the know-how and track record built up in the field. It is designed with redundant modules, guaranteeing reliable performance and maximising energy output, thereby optimizing the cost of energy. Over 1.3 million engineering hours went into designing and validating the patented technology fitted into the offshore turbine in more than 100 accredited laboratories and testing centres in the US, Asia and Europe. The turbine's various parts were subjected to over 618 tests, including around 100 functional trials in the field.

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