RWE will install CO₂-reduced towers at Thor offshore wind farm to drive wind power sustainability

- RWE to utilise Siemens Gamesa’s GreenerTower as first developer globally
- Half of the 72 turbines to be equipped, installation offshore expected in 2026
- Greener steel reduces CO₂ emissions of tower steel plates by at least 63 percent
- More use of scrap steel and green electricity, less energy-intensive production

Copenhagen, 21 April 2023

RWE is taking another step in driving forward sustainability in wind power by being the first developer in the world to utilise Siemens Gamesa’s GreenerTower at its Danish offshore wind farm Thor. The tower steel plates are made of greener steel that produces at least 63 percent less CO₂ emissions compared to conventional steel. 36 of the 72 wind turbines will be equipped with the lower-carbon steel towers. Installation offshore is expected in 2026.

Sven Utermöhlen, CEO RWE Offshore Wind: “Offshore Wind already has one of the lowest life-cycle carbon footprints of power generation technologies. However, tower production accounts for around one third of all wind turbine-related CO₂ emissions. So using greener steel is a significant step towards producing even more sustainable wind power. At RWE we are fully committed to working towards circularity and net-zero emissions. We are already testing the world’s first recyclable wind turbine blades by Siemens Gamesa under real-life conditions. By piloting the GreenerTower at our Thor offshore wind farm, RWE is now once again taking the lead by helping to significantly reduce the carbon footprint of wind turbines.”

Third-party certification will verify that a maximum of just 0.7 tons of CO₂-equivalent emissions are produced per tonne of steel in the new, GreenerTower, while the same steel properties and quality are maintained. As one of the measures to decarbonise steel production, the electric furnaces will be fed with green electricity produced by renewable energy sources. Other means include the use of scrap steel in the production process, substituting iron ore and reducing the energy intensity of the overall process.

Maximilian Schnippering, Head of Sustainability at Siemens Gamesa: “Wind power is one of the cornerstones of the green energy transition. With more than 600 gigawatts of new capacity to be installed worldwide in the next five years, it is important for the wind industry to reduce its carbon footprint. Our project to address emissions with greener steel is one such solution. With the launch of GreenerTower and the agreement for RWE’s Thor wind farm, Siemens Gamesa leads the efforts to further push wind circularity and net-zero emissions.”
Thor to supply green electricity to more than one million Danish households

RWE will build the Thor wind farm in the Danish North Sea, approximately 22 kilometres from Thorsminde on the west coast of Jutland. With a planned capacity of more than 1,000 MW, Thor is Denmark’s largest offshore wind farm to date. Once fully operational, which is planned no later than the end of 2027, the wind farm will be capable of producing enough green electricity to supply the equivalent of more than one million Danish households. Since 2010, RWE has already completed and now operates the Danish Rødsand 2 offshore wind farm, which is located south of the Danish island of Lolland.

For more information about RWE’s Thor offshore project, please visit: thor.rwe.com

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Picture material for media use is available at the RWE Media Centre (credit: RWE).

Note to editors:
Three turbines at RWE’s Kaskasi wind farm off the German coast are equipped with Siemens Gamesa RecyclableBlades. These rotor blades can be recycled at the end of their life cycle. Thanks to a new type of resin with a special chemical structure, for the first time the materials used can be separated again. This process ensures that the properties of the individual materials remain intact so that they can be reused. The recyclable rotor blades will also be installed on 44 of the 100 turbines at Sofia wind farm, which is currently being constructed by RWE off the northeast coast of the UK.

RWE
RWE is leading the way to a green energy world. With an extensive investment and growth strategy, the company will expand its powerful, green generation capacity to 50 gigawatts internationally by 2030. RWE is investing more than €50 billion gross for this purpose in this decade. RWE Supply & Trading provides tailored energy solutions for large customers. RWE has locations in the attractive markets of Europe, North America, and the Asia-Pacific region. The company is responsibly phasing out nuclear energy and coal. Government-mandated phaseout roadmaps have been defined for both of these energy sources. RWE employs around 19,000 people worldwide and has a clear target: to get to net zero by 2040. On its way there, the company has set itself ambitious targets for all activities that cause greenhouse gas emissions. The Science Based Targets initiative has confirmed that these emission reduction targets are in line with the Paris Agreement. Very much in the spirit of the company’s purpose: Our energy for a sustainable life.

Forward-looking statements
This press release contains forward-looking statements. These statements reflect the current views, expectations and assumptions of management, and are based on information currently available to management. Forward-looking statements do not guarantee the occurrence of future results and developments and are subject to known and unknown risks and uncertainties. Actual future results and developments may deviate materially from the expectations and assumptions expressed in this document due to various factors. These factors primarily include changes in the general economic and competitive environment. Furthermore, developments on financial markets and changes in currency exchange rates as well as changes in national and international laws, in particular in respect of fiscal regulation, and other factors influence the company’s future results and developments. Neither the company nor any of its affiliates undertakes to update the statements contained in this press release.

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