

Press release

Study: RWE and DNV to validate implications of long-distance “wake effects” from large offshore wind clusters

- **Initial findings expected in April; ahead of German offshore seabed auctions**
- **DNV to bring in expertise as a leading provider of wind energy yield studies**

Essen, 10 March 2023

RWE and DNV have now agreed on a scope to conduct a large study assessing the impact of far wakes in offshore wind. The scope of the study asks DNV to validate the effects that RWE experts have identified. RWE models predict that large clusters of offshore wind farms could have far-reaching wind-shadowing effects, impacting wind yield of future offshore farms.

Results of the RWE modelling now suggested for validation

RWE reviews its methodology and approaches to wind energy yield modelling on an ongoing basis. Based on this the company has developed a good understanding of these long-distance “cluster wake effects”. The preliminary model from RWE forecasts that these can have an impact up to 200 kilometres or more and cause the energy yield in the wake areas to be reduced – in certain cases by over 10 percent. This could have possible implications on future offshore development projects in Europe, for example in the German North Sea.

Initial findings of the DNV review expected in April

RWE experts will now hand off their data to the independent energy expert and assurance provider DNV to validate the initial modeling results. DNV will independently carry out data analysis on RWE data and perform CFD modelling to review the RWE findings. The study aims to provide first results of DNV in April to reflect on the potential losses.

Study results could impact short term auctions

While the buildout of large offshore wind clusters will still take many years to materialise, the effects would already influence the economics of projects that are to be auctioned by governments in the near future.

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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. The portfolio is based on offshore and onshore wind, solar, hydrogen, batteries, biomass and gas. 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.

About DNV

DNV is the independent expert in risk management and assurance, operating in more than 100 countries. Through its broad experience and deep expertise DNV advances safety and sustainable performance, sets industry benchmarks, and inspires and invents solutions. Whether assessing a new ship design, optimizing the performance of a wind farm, analyzing sensor data from a gas pipeline or certifying a food company's supply chain, DNV enables its customers and their stakeholders to make critical decisions with confidence. Driven by its purpose, to safeguard life, property, and the environment, DNV helps tackle the challenges and global transformations facing its customers and the world today and is a trusted voice for many of the world's most successful and forward-thinking companies.

DNV in the energy industry : DNV provides assurance to the entire energy value chain through its advisory, monitoring, verification, and certification services. As the world's leading resource of independent energy experts and technical advisors, the assurance provider helps industries and governments to navigate the many complex, interrelated transitions taking place globally and regionally, in the energy industry. DNV is committed to realizing the goals of the Paris Agreement, and supports customers to transition faster to a deeply decarbonized energy system. Learn more at www.dnv.com

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