

References

Project: Offshore Wind Farm Butendiek
 – Design Basis According to the BSH Standard Construction (Phase 1)

Period: November 2008 – December 2009

Client: BOW Butendiek Offshore Windpark GmbH & Co. KG, Husum

Short Description: Design basis according to the BSH standard construction (Phase 1) for a wind farm site in the North Sea with a water depth of about 20 m

Contents of the design basis

- Configuration of the wind farm
- Technical specifications
- Environmental conditions
 - Water levels, wave heights, currents, wind conditions, scouring and scour protection, temperatures, ice drift/icing, ship impact load, marine growth
- Soil conditions
- Description of the wind turbines and foundation structures
- Requirements for the detailed engineering design
- Design specifications and programs
- Load cases and load combinations
- Soil pile interaction
- Analysis of ultimate and fatigue strength analyses for steel structures
- Analysis of ultimate strength for concrete structures
- Serviceability analyses
- Analysis of grouted connections and Driveability
- Basic principles of the eigenfrequency analysis
- Scouring
- Material properties (steel and concrete) / Corrosion protection
- Transport and installation / Operation and monitoring
- Notes regarding the dismantling of the foundation structures.



Layout OWF Butendiek in the North Sea in front of Sylt