



# Current State of

# Offshore Wind Energy

## Summary

The energy transition is gaining momentum and will keep accelerating in the future. Offshore wind farms play a key role here: the offshore wind energy sector is on the verge of significant growth. Thanks to a wealth of technological innovations, turbines can now supply substantial volumes of energy. Add to this, national/international agreements on carbon emissions, supportive government policy and favourable financial conditions (e.g. the low price of steel) and the rapid growth of this sector is inevitable.

The health and safety of workers and protection of the environment are currently the subject of much discussion offshore, not least in the wind energy sector. The challenge we are faced with is to maintain the good track record and to keep the risks associated with the envisaged growth, technological development and competition under control.

## Safe from drawing board to dismantling

The rapid scaling up of the sector provides an excellent opportunity to secure safety at work and environmental protection. The desire to cut costs can sometimes be inconsistent with this. It is important to avoid concessions in terms of safety in the field of design, maintenance, operations and follow-up.

## Working conditions

It is clear from international statistics which operations carried out on offshore wind farms pose an increased risk: marine operations, hoisting and lashing, working at a height, climbing and transferring between vessel and turbine. Given the large numbers of contractors and subcontractors working on the wind farms, particular attention must be paid to work processes and collaboration. Significant numbers of new workers are entering the field, both from the Netherlands and the rest of the world. It is important to consider communication problems caused by language barriers and to ensure that personnel are suitably qualified.

## Environment

Larger wind farms and larger turbines impact on marine flora and fauna. On the one hand, without mitigation, certain types of foundation have a negative impact on marine mammals during installation, while, on the other, there are also positive effects on underwater life. The Environmental Impact Assessment indicates that, with mitigation measures, the impact on the environment can be reduced to an acceptable level. With the current state-of-the-art, these measures are perfectly feasible.

## Joint supervision

The State Supervision of Mines (SodM) and Rijkswaterstaat (the Ministry of Infrastructure and Water Management) are jointly responsible for enforcing the Offshore Wind Energy Act (Wet windenergie op zee) and the Water Act (Waterwet). SodM carries out inspections and, where necessary, intervenes directly to enforce the regulations. RWS carries out administrative audits and intervenes in the event of non-compliance. In addition, SodM monitors working conditions and product safety on behalf of the Minister of Social Affairs and Employment (SZW). Furthermore, among others, the Coastguard and the Human Environment and Transport Inspectorate (ILT) play a role in the monitoring of offshore wind farms. The regulation of offshore wind farms is not always adequately laid down in law; there are a number of shortcomings. For example, the working conditions legislation governing offshore wind farms is not yet comparable to that of the offshore oil and gas sector. The various supervisors are working on better coordination and implementation of their supervisory duties.

The sector is faced with the challenge of keeping the environmental and safety risks associated with the envisaged growth, technological development and competition under control. This requires much work on the part of both operators and the government. In the context of a major scaling up of wind energy in the North Sea, SodM is committed to ensuring that the safety of those who work on the wind farms and the protection of the environment are an integral part of the responsibilities of both the sector and the government. To that end, we will ensure that we expand our knowledge and capacity, so that we can grow with these developments.

Download complete report: *Staat van de sector windenergie op zee* (in Dutch)

State Supervision of Mines  
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