

Realizing shore power to achieve a zero emission port in 2050

With the European Green Deal, the European Commission aims to become the first climate neutral continent by 2050. The Port of Rotterdam supports this ambition and is working towards a **zero emission port in 2050**. The reduction of emissions by the shipping industry is part of that ambition.

Reducing maritime transport emissions

To reduce the emissions of the entire maritime transport chain, we stimulate investments in sustainable fuel production across the entire value chain, provide incentives for ships that use cleaner fuels and develop new safety frameworks and standards for bunkering clean and low carbon fuels and set up these new bunkering facilities in the port. CO₂-emissions at sea represent 87% of all emissions of logistics chains via Rotterdam. Hinterland transport is 11% and the emissions of berthed ships just 2%.

Yet the reduction of emissions in the port is important, especially to improve the living environment in surrounding residential areas and to protect vulnerable Natura2000 areas in close proximity to the port. For this reason, all moorings for inland vessels in the port, as well as the ferry of Stena Line Hoek van Holland have a shore power connection.

Investing in Europe's largest green shore power connection

Currently a variety of onshore power infrastructure projects are being executed in the port. One of them concerns Europe's largest green shore power connection to supply offshore crane vessels on the Calandkanaal with onshore wind power. This does not only result in significant carbon reductions, but also ensures that berthed vessels no longer emit nitrogen and particulate matter to the environment and moreover reduces noise levels.

Realizing 8-10 new shore power installations in the next five years

Together with the Municipality of Rotterdam, the port authority has embarked on an ambitious strategy to realize 8 to 10 new shore power installations in the next five years to learn from them and then speed up the uptake of shore power in the second part of this decade. This approach is a consequence of the fact that, despite the positive results of shore power, fundamental uncertainties for market parties still exist and the technical potential of shore power for the shipping industry is still being developed.

Risk of losing momentum with European obligations

A European one-size-fits-all obligation for ports to install onshore power on every berth would result in very high costs with the risk of creating lock-in effects hampering the uptake of zero emission fuels. It also risks losing momentum for the commercial interest in shore power by market parties which we currently see. Shore power has large socio-economic benefits to deliver, but is certainly not a "no regret" measure that works everywhere; for certain segments and port areas, other measures such as the use of low and zero emission fuels could be far more cost effective in terms of emission reduction.

Instead of top-down regulations, we would welcome a tailored approach with progressive ambitions per shipping segment, taking into account local circumstances and costs, while also driving standardisation. We advocate a value chain approach for the rollout of shore power in European ports, based on cooperation and stimulation, rather than regulation.

Our ambitions for 2030

Our ambition is to supply 90% of the ships visiting public quays in the urban area with shore power by 2030. Furthermore, we focus on areas and segments where we can take large steps forward. For Roll-on/Roll-off, ferries, offshore vessels and cruise we want to supply 90% of the visits with shore power by 2030. For large container vessels (ULCS: >10,000 TEU nominal capacity) the aim is set at 50%. For more complex shipping segments such as liquid and dry bulk and areas where the technical facilities are not yet available, we provide active support in the field of innovation and standardization.

What we need

In order to realize these ambitions, we need **direct project subsidies** to cover the non-profitable top of promising shore power projects. Putting **a price on shipping emissions** would considerably improve the business case for shore power while also boosting usage rates. Whereas **a permanent tax exemption for shore power and zero emission fuels** is needed to create a level playing field with tax exempted fossil fuels.

By fulfilling these conditions, European policymakers can help us to deliver zero emission ports, which in turn can help Europe to achieve climate neutrality in 2050.