

# Port of Oslo

A city port with  
zero-emission operations

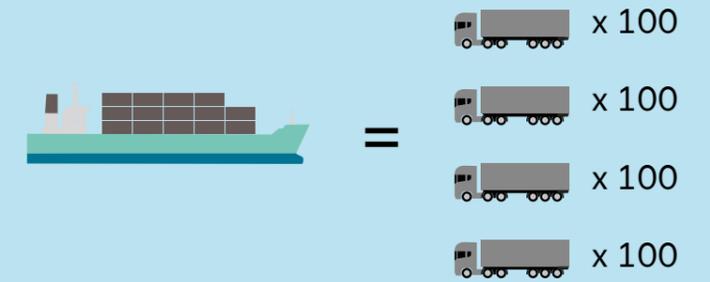


Oslo

# The world's first emission-free port

Shipping accounts for three percent of Oslo's greenhouse gas emissions. Oslo aims to reduce its greenhouse gas emissions by 95 percent by 2030. In 2018, Oslo City Council adopted an action plan to make Oslo a zero-emission port. All land-based transport will be powered by electricity instead of fossil fuel. Onshore power supply for all types of ships and emission-free sailing must be implemented in order to reach this climate target. Electrification of the container port in Oslo is particularly important, and can reduce emissions generated by the transport sector far beyond the port facility itself.

The Port of Oslo plans to grow in line with the city, with 50 percent more freight and 40 percent more passengers by 2034. At the same time, the port and the city will build emission-free solutions. It is therefore important that the City of Oslo's main focus be to reduce emissions from It is important that the City of Oslo continue to focus on reducing emissions from all modes of transport.



# One ship replaces 400 trucks

Oslo hosts Norway's largest freight and passenger port. Between 50 and 70 ships call at the Port of Oslo every week, and goods can be distributed from the Port of Oslo to half of Norway's population in less than three hours.

A regular container ship in the port replaces 400 semi-trailers on the road leading to Oslo. Shifting transport from the road to the sea is an important and effective climate measure that can easily reduce greenhouse gas emissions generated by the transport sector.



# Zero emissions in the port and the city

## Shore power

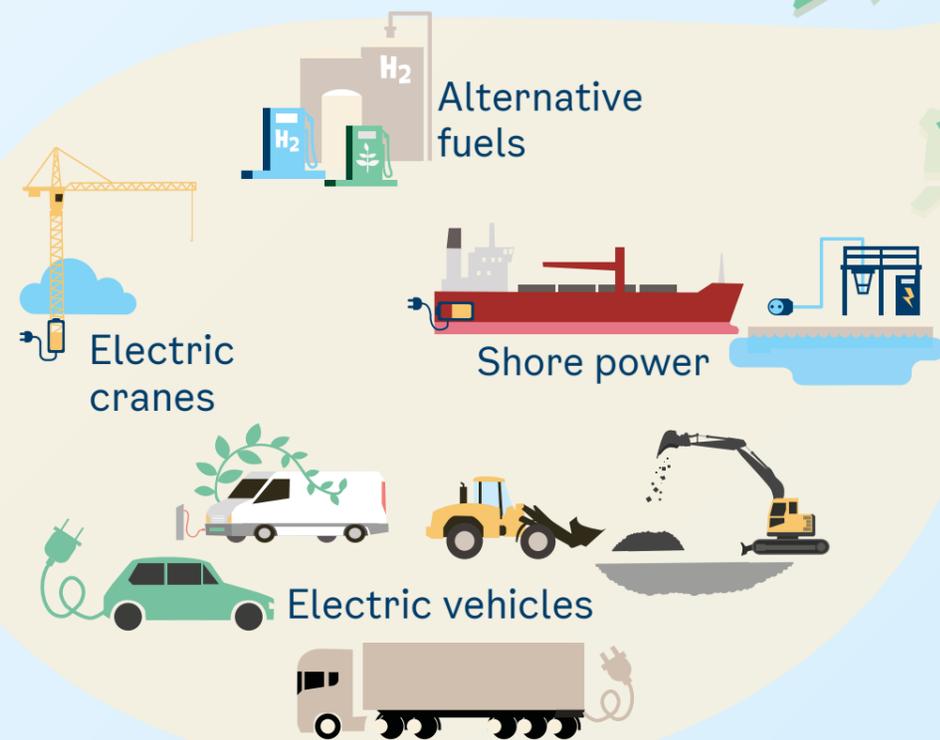
With shore power ships can connect to the port's power grid and reduce their diesel consumption. Foreign ferries in Oslo are using shore power already, and solutions for cargo vessels are under construction.

## Shore power for charging vessels

Shore power can enable emission free sailing in the harbour if vessels have batteries installed. Local ferries in Oslo are already electric, and shows that emission-free sailing is possible. Use of locally produced biogas and hydrogen have also been considered as potential solutions.

## Train and trucks from the port

The Port of Oslo facilitates zero-emission logistics. Fuel is transported daily to Oslo Airport Gardermoen, and ongoing work is examining better connections between the container terminal at the port and freight terminals in the region.



Alternative fuels

Electric cranes

Shore power

Electric vehicles

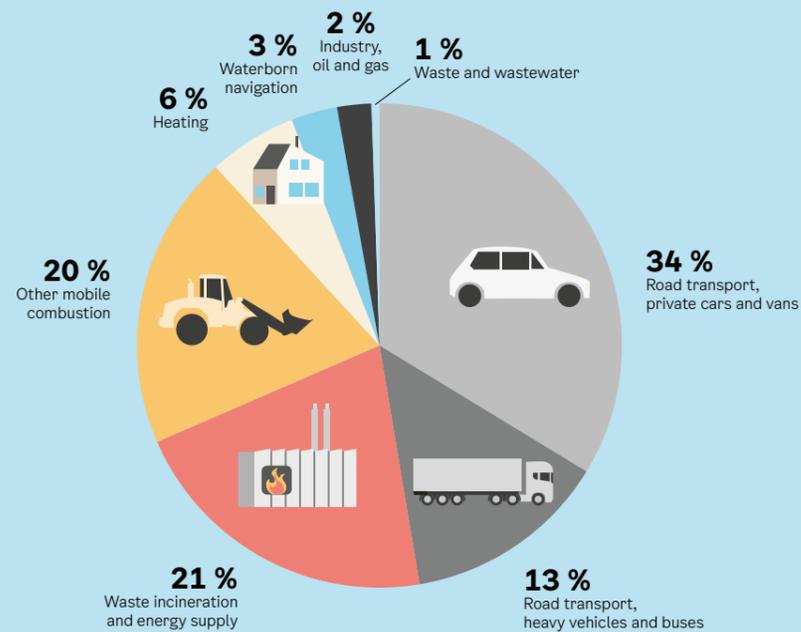
## Cargo handling in port

At the same time as port space is rationalized, infrastructure for charging are under construction. Charging facilities for electric trucks, lorries, cranes and other cargo handling equipment are needed to achieve emission-free handling of cargo and goods.

## Carbon storage is dependent on ports

Waste incineration is dependent on carbon storage and capture (CCS) for reducing emissions. The carbon will be stored on the Norwegian continental shelf and transported there by ship from the Port of Oslo.

# A city port will enable emission-free transport to grow



An emission-free Oslo will change the way the city looks today. Oslo is an arena of innovation, experimentation and commercialization in new climate solutions and technologies. Climate and business go hand in hand. New technologies produce new logistical solutions. Greenhouse gas from waste incineration operations can be transported by ship and stored in the North Sea. Soil and rock masses from building and construction activities will no longer be transported long distances by trucks run on fossil fuel. The masses can be sorted and shipped from the port. Oslo wants local transport of building and raw materials to the city's many construction sites.

The Port of Oslo is a key facilitator in transitioning cargo and goods transport to emission-free fuels. The Port of Oslo will make major investments in the power grid in the coming years to allow ships to use onshore power and charge their batteries. Equipment and machinery at the port will be charged, and emission-free trucks and trains can transport goods to their final destinations.

The costs associated with establishing infrastructure for the zero-emission port are substantial, and are estimated at over NOK 200 million. It will also entail shipping companies having to retrofit their ships and port stakeholders to invest in new equipment and machinery.

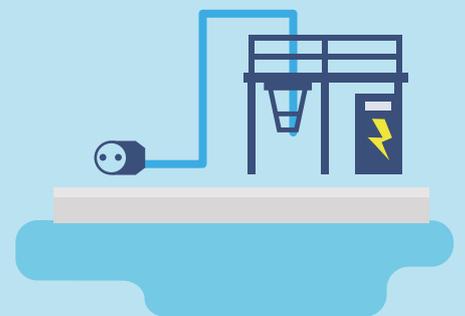
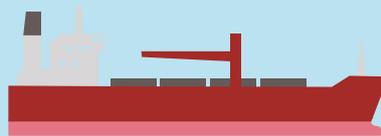
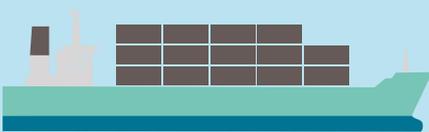
The plans for establishing a zero-emission port in Oslo have been set. Now they will be implemented. This will demand extensive cooperation between the Port of Oslo, its customers and Oslo's business sector. Together, we can make the port and the city emission-free.





Oslo

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City of Oslo,  
Port of Oslo and Climate Agency,  
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