European ports becoming 'fit for 55'

With its Climate Law, the EU has set itself the target of reducing its greenhouse gas (GHG) emissions by at least 55% by 2030, and aims for climate neutrality by 2050. Of the maritime sector’s CO₂ emissions, between 6 and 7% are generated at berth in ports in the European Economic Area. This calls for a strong focus on the greening of shipping, making port services sustainable and infrastructure for alternative fuels available. In parallel, key maritime and inland ports on the trans-European transport network (TEN-T) need to adapt to the role of strategic multimodal nodes and clean energy hubs.

Fit for 55 proposals: Implications for ports

In July 2021, to align the EU economy with the European Green Deal and the sustainable and smart mobility strategy, the European Commission put forward a first set of legislative proposals, the fit for 55 package. The proposals are interlinked and several have implications for ports. These concern maritime fuels, fuels infrastructure, emissions trading, and energy taxation. In November 2021, the Council reacted by demanding further guidance on the proposals’ overall ambition, and an assessment of their joint impact.

The proposed FuelEU Maritime regulation aims to boost the production and uptake of sustainable, low-carbon fuels in maritime transport, and obliges ships to use on-shore power supply (OPS); ports are expected to facilitate both. The rules apply to ships of more than 5,000 gross tonnes (GT), regardless of their flag. From 2025, limits would be introduced on the carbon intensity of the energy used by vessels, covering around 90% of the emissions generated. From January 2030, ships staying for more than two hours in a port would have to connect to OPS, unless they used another zero-emission technology. Responsibility would lie with the shipping companies. Non-compliance would lead to penalties, which would feed into an innovation fund to finance the production of renewable maritime fuels and other greening actions in the sector. The investment in the port infrastructure needed will be port-specific and depend on the size and type of traffic. The Commission estimates the total cost of investment in alternative fuels infrastructure over the 2025-2050 period at €9.9 billion: €2.5 billion for hydrogen infrastructure and €7.4 billion for OPS.

Until recently, there was little reliable data to quantify the emissions savings achievable with OPS. However, a 2021 study on CO₂ emissions data collected through the EU monitoring, reporting and verification (MRV) system shows significant potential savings if the replacement electricity were clean. Italy would have the highest savings in absolute terms (487 kilotonnes (kt)), Sweden the highest reduction in relative saved share (99%). For oil-reliant countries (e.g. Greece, Cyprus) or coal-dominated ones (e.g. Poland, Estonia), the reduced share is low or negative (Figure 1).

The proposed regulation on the deployment of alternative fuels infrastructure seeks to ensure the availability of a dense alternative fuels network, including liquefied natural gas (LNG) at EU ports. It requires that, by the beginning of 2030, at least 90% of demand for OPS be met in TEN-T maritime ports, and sets

Figure 1 – Amount of CO₂ emissions saved (absolute and relative) in coastal Member States, by using OPS

requirements for OPS for inland waterway vessels at berth. With containerships, cruise ships and passenger ferries using OPS, both greenhouse gas emissions and air pollution in and near ports should decrease. Furthermore, EU Member States would have to install LNG refuelling points in maritime TEN-T ports, and jointly ensure LNG coverage for seagoing ships to circulate throughout the TEN-T network by 2025.

The EU emissions trading system (ETS) is the cornerstone of the EU’s policy to combat climate change and reduce GHG emissions cost-effectively. The proposed ETS review seeks to align the ETS with the EU Climate Law. While requirements for the current ETS sectors will be strengthened, the Commission is proposing to further reduce emission allowances and extend the ETS to the maritime sector by including ships of 5 000 GT and more. The system would cover all energy used in European ports and consumed during voyages between them, and 50 % of the energy used during journeys between EU ports and those in a third country. Penalties from the ETS would feed into an innovation fund targeting climate action. Half of ETS revenues would need to be spent on climate action by Member States, and could also go into the innovation fund. Once the International Maritime Organisation develops a global pricing mechanism, the ETS would be aligned.

With the revision of the Energy Taxation Directive, the Commission has proposed to tax fuels according to their energy content and environmental performance instead of their volume. Fossil fuels, such as those used as bunker fuels in vessels, will no longer be exempt from taxation in EU ports, but will remain untaxed in ports outside of the EU. From 2023, taxes would be introduced over a 10-year period, requiring sufficient market uptake of alternative fuels. Taxation laws, such as this proposal, require unanimity of EU Member States. Other recent Commission legislative proposals affecting EU ports concern the taxation rules, defining economic activities that contribute to climate action, and the revised TEN-T guidelines. These legislative proposals need to be negotiated between the European Parliament and Council.

**European Parliament views**

In its October 2018 resolution on deployment of infrastructure for alternative fuels in the EU, the Parliament called on the Commission to support the decarbonisation of the maritime sector, with a clear focus on innovation, digitisation and adaptation of ports and ships. It also supported the deployment of OPS at both inland and maritime ports. A January 2020 resolution on the Green Deal welcomed the proposal to review the Alternative Fuels Directive, calling on Member States to commit to proper funding and step up the pace for the deployment of innovative strategies, charging infrastructure and alternative fuels at national level.

**Ports’ priorities**

To implement the changes spelled out in the proposals, ports will need sufficient funding. European Sea Ports (ESPO) asked for better alignment of the FuelEU Maritime and alternative fuels infrastructure regulation (AFIR) proposals, and to ensure a return on OPS investments, conditioned by its mandatory use, possibly accompanied by an EU-wide permanent tax exemption for OPS. The scope of OPS should take into account prioritisation of busy terminals. ESPO also proposed to extend the taxation on bunkering outside of the EU, to safeguard an international level playing field for EU ports. In their view, the ETS should be extended to prevent evasive calls in the neighbouring non-EU ports, and ETS revenues should be reinvested solely in the greenening of the sector. Inland navigation stakeholders’ concerns focus on providing OPS under AFIR. For ESPO, the existing grids at inland ports will not be able to address the demands for electricity, making the 2030 target unfeasible. Inland ports insist that OPS should be taxation-free, and seek further EU financial support, including additional funding for port reforms.

**Outlook**

While the delivery of the European Green Deal remains high on the EU’s political agenda, the war in Ukraine could slow down legislative negotiations, and the expected developments and investments. Energy security imperatives could redefine the requirements, linked to energy supply, including the acceptance of (bio) LNG as a globally available transition fuel. The closure of ports in Ukraine has already disrupted European supply chains, and could further exacerbate pandemic-related congestion at terminals, also putting maritime safety and security at risk. Furthermore, EU ports may have to face the need to apply EU sanctions against Russian-linked vessels, as proposed in the latest sanction package. This could be reflected in the forthcoming review of maritime safety rules, for instance in terms of port state control.