Alternative Fuels Infrastructure

Despite electrification ambitions, ports risk fossil gas lock-in

Context

Greening the infrastructure is an essential step to achieve the decarbonisation of any sector. As part of the Fitfor55 Package, the European Commission has proposed GHG reduction targets for ships to drive the switch to sustainable alternative fuels. But if green fuels are not available for refuelling in European ports, that switch will not happen. Hence the proposal to review the Alternative Fuels Infrastructure Directive goes hand-in-hand with the proposal on FuelEU Maritime Regulation to drive demand for alternative marine fuels.

Moreover, ports and coastal areas are also facing critical air pollution problems. Air pollution is responsible for respiratory diseases and causes on average 400 000 premature deaths every year in Europe. The ports of Barcelona, Palma de Mallorca and Venice are among the most polluted areas in Europe. Despite the entry into force in 2020 of the global sulphur cap that limited sulphur content to 0.5% of marine fuels, air pollution levels remain very high.[1]

What has the European Commission proposed?

For shipping, the Alternative Fuels Infrastructure review proposal sets binding targets on Member States to deploy shore-sea electrification (SSE) in maritime and inland ports, and refuelling points for liquified natural gas (LNG) in EU core maritime ports.

What's good? What's not?

The introduction of binding mandates to generalise shore-side charging stations across Europe is excellent news both for air quality and climate. By requiring ports to make available onshore power supply (OPS) to passenger ships and containerships - the most polluting ships - the proposed review promises to address the chicken and egg problem of the 2014 Directive, that left it to Member States to decide based on availability of demand and cost-benefit analysis. In addition, for the first time demand for investments made in SSE will be guaranteed: the FuelEU Maritime proposal introduces a zero-emission berth mandate, that requires ships to plug in to SSE instead of running polluting engines for their energy needs at port. SSE is also essential to enable more and more battery-electric ships to recharge.

However, when it comes to alternative refuelling infrastructure, the Commission is betting on the wrong horse. Instead of encouraging the use of green e-fuels with much-needed infrastructure, the proposal mandates the deployment of fossil LNG infrastructure at core European ports by

[1] T&E Study "One corporation to pollute them all" (2019)

2025. With a lifetime of about 25-40 years, fossil infrastructure mandated in 2025 is set to promote fossil gas in shipping for decades to come. This goes directly against the recommendations of the World Bank to put an end to policy support for LNG as a marine fuel, even in a transitional phase, because of the high risks of stranded assets it creates.

How should it be improved?

The reviewed Alternative Fuels Infrastructure legislation should set binding targets only for refuelling infrastructure for green fuels. Its role should be to accelerate the uptake of truly sustainable fuels in shipping, such as green hydrogen and ammonia that are crucially needed to achieve the sector's decarbonisation by 2050. As a priority, the proposed LNG mandate must be removed so as to avoid investments in fossil infrastructure incompatible with green shipping.

Instead, new targets should be introduced to deploy green hydrogen and ammonia bunkering infrastructure to support the sector's efforts to put at sea zero-emission vessels. Hydrogen ferries are starting to be deployed in Europe, and the first big ammonia-powered containerships are expected by 2025. Last but not least, the overall ambition of electrification for ports could be improved. Onshore power supply is a technology that exists for over 20 years, and all ship types can technically be equipped with it. This is why we recommend to speed up the timeline starting from the most polluting ship types, and progressively extend SSE to benefit to all ships:

- All passenger terminals across Europe by 2025 latest;
- all cargo ship terminals for containers, oil tankers, refrigerated bulk carriers by 2030;
- and for all remaining vessels by 2035.

What next?

The European Parliament and the Council will have to decide on important investment choices that will determine the future of European ports. Betting on a dead-end fuel risks to cost millions in lock-in infrastructure, while diverting funds from green infrastructure and thus slowing down shipping's course to decarbonisation. It is still time to make the shift from fossil fuel mandates to shoreside power and green hydrogen facilities targets.

Further information

Delphine Gozillon
Sustainable Shipping Officer
Transport & Environment
delphine.gozillon@transportenvironment.org
Mobile: +32(0) 478 10 00 88