

BUNKERSPOT

STARTER'S ORDERS

IMO 2020 COMES INTO FORCE



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LNG BUNKERING

WIND PROPULSION

FUEL CELL TECHNOLOGY

GTL FUELS

Cleaning up

It is widely accepted that the shipping industry must become clean and emission-free. After years of discussion with little output, the industry is now in the spotlight for decarbonisation. It has a unique opportunity to become a leader in clean technology but, asks **Marie Cabbia Hubatova** of Environmental Defense Fund Europe, will it live up to expectations?

November's International Maritime Organization (IMO) Intersessional meeting on greenhouse gases (GHG) in London featured a discussion on how to move forward on the 2018 pledge to cut the industry's GHG emissions by at least 50% by 2050 (compared to 2008 levels). To meet that goal, ships will ultimately have to decarbonise, or move away from fossil fuels. It's a transition that, if not handled properly, could be expensive and disruptive. But with sensible policies, countries could decarbonise shipping as well as develop and produce green fuels and technologies that could benefit their economies.

BEYOND ENVIRONMENTAL BENEFITS

Zero emissions fuels do not produce GHG emissions in any stage of their lifecycle. In shipping, studies suggest electrofuels, or fuels produced using renewable energy such as ammonia or hydrogen, as the most viable zero emission fuel types. Apart from the obvious benefit of not being

damaging to the global climate, electrofuels have an added asset of not emitting harmful air pollution particulates. They're not quite ready for primetime – safety and cost are current barriers – but solutions to these issues are on the horizon.

Besides being good for the environment, zero emission fuels can also bring many economic benefits. Research from Environmental Defense Fund shows that adopting zero emission fuels could trigger trillions of dollars in investments worldwide towards the development and production of these fuels. Lower-income economies would especially benefit from this investment, as they often have abundant renewable energy capacity, such as wind or solar. Ships running on electrofuels can, through their demand for bunkering opportunities, provide the concentrated, predictable demand that is required to reassure investors in renewable energy in low income countries.

Apart from these assets, Member States and shipowners could hugely benefit from a first mover advantage. Zero-emission shipping fuels are an emerging market and first entrants will have the opportunity to secure a solid market share, whether of the

bunkering infrastructure (breaking up the current bunkering oligopoly) or building their brand names as a leader in zero-emissions technology. Some countries have already started trying to capture this advantage and so we can already see the first hydrogen and ammonia powered vessels in Europe, North America, Oceania and East Asia.

POLICY SUPPORT NEEDED

Clearly, the transition to electrofuels comes with important benefits for the shipping industry. But where will the initial investment come from? The IMO will play an important role in this regard.

The IMO is the international regulator setting a level playing field for the entire shipping industry. It will have to send a strong signal in the form of policies about the future development of the shipping industry to allow stakeholders to make appropriate strategic decisions on how to embrace the transition. The IMO could also design a financial mechanism that would generate income from a carbon price on shipping fuel to be redistributed as funding for green shipping projects in lower income countries and

those in a disadvantaged position, such as very remote countries or small island states heavily reliant on seaborne trade.

WHAT ABOUT A FUEL TAX? _____

Currently, bunker fuel is not subject to tax. In Europe, where we often pay over 50% of taxes on petrol and diesel for cars, this has led to a call for the taxation of shipping fuel, most recently by the French finance minister. Indeed, the industry itself has stated that it will bring forward a proposal to create an R&D fund for shipping, linked to a mandatory levy on bunker fuel. In addition, the EU's new leadership announced plans to bring shipping within the existing Emissions Trading System, which would cap shipping emissions in Europe and potentially on journeys to/from Europe.

But taking a step back, if you were to design the ideal policy to decarbonise shipping from scratch, how would that be designed? Ideally, it would motivate everyone to invest in new clean emissions-free technology. The technology should be reasonably priced and accessible to avoid any disruptions to the business. To achieve that, ships would have to pay for their GHG emissions. The money collected would then be used to support zero emission projects to help make them commercially competitive. This would form part of a robust and comprehensive policy framework covering all aspects of accounting for emissions, monitoring and verification, collection and redistribution of the funds.

The IMO has an excellent record on regulating the shipping sector, however the process is often long, with years of debate. Meanwhile, the climate science shows we are running out of time. Therefore, it is paramount that the IMO acts now and with high ambition. With ships' average lifespan being 20-30 years, it is clear that the first zero emission vessels will have to start operation in the next decade. To make it happen, we need to see appropriate policies in place in the next couple of years if shipping is to play its part in meeting the Paris Agreement temperature goal.

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EVERYTHING COUNTS _____

It is absolutely crucial that the definition and scope of GHG emissions covered by the framework is correct from the very beginning. Essentially, all emissions related to the production and use of all fuels have to be properly accounted for, otherwise reducing emissions on ships could cause an increase in emissions on land. For example, the manufacture of hydrogen and ammonia is very energy intensive and if that energy comes from fossil fuels, the overall reductions compared to conventional fuels would be next to zero. Poor accounting could also open the door for low quality biofuels which could have damaging environmental impacts. Besides that, it is important to account for all GHG to make sure we are not replacing one harmful gas with another.

Methane, for example, has a 28 times larger warming potential than carbon dioxide


(CO₂) and its emissions are commonly found throughout the lifecycle of LNG which some are promoting as a solution to the climate crisis for shipping. But it is a false solution. Clear accounting and pricing rules are crucial to help governments and shipowners make informed decisions when it comes to choosing the best technology and investments.

In November, the IMO GHG working group discussed emissions accounting. A majority of delegates expressed their preference for full life cycle assessment of emissions. This is a great sign of the increasing awareness of the industry's impact on global climate and the determination of Member States to do a good job.

WHAT NEXT? _____

The IMO will meet again in March 2020 to discuss GHG emissions and pathways to decarbonisation. IMO Member States will have the opportunity to deliver the first proposals for policies to address decarbonisation in the longer term, including methodological frameworks on how to properly account for emissions throughout the full lifecycle of fuels. Industry has indicated that they will submit a proposal for the introduction of a levy on shipping fuel and recycling the income into a research and development fund. The forthcoming meetings will be crucial for the success of the 2050 goal and meeting the Paris temperature goal.

It will be mostly up to Member States to ensure there are no further delays and high quality, ambitious policies are adopted at a global level. Shipping has set sail towards a clean future, let's hope the waters are calm and it reaches its destination soon.

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