

Green Hydrogen and Green Shipping

Achieving global climate change goals of keeping warming below the Paris target of 1.5 degrees and reducing emissions to net zero by 2050 requires action across all sectors. It also requires solutions that cut across sectors, to enable the fastest possible action and uptake.

This is particularly true in the case of the maritime and green hydrogen sectors. Long considered a “hard to abate sector,” international shipping is seeing increased momentum toward full decarbonization, led by both industry and governments. However, achieving full decarbonization will require large-scale and rapid growth in the use of zero-emission fuels, notably green hydrogen-derived fuels. It is here that cross-sectoral efforts and commitments, such as those we are making today, are needed. Strong, ambitious emissions reductions targets adopted by the maritime sector send critical demand signals to green hydrogen financiers and producers, while clear intentions and capacity to supply green hydrogen provide the confidence needed by actors across the maritime value chain to take bold steps to reduce emissions.

With such commitments, full decarbonization of the maritime sector is within reach. It is estimated that positioning the global shipping sector on the least cost 1.5-aligned pathway would require the use of green hydrogen-derived fuels starting in the middle of this decade, requiring a relatively modest green hydrogen volume of 5 million tonnes by 2030, growing rapidly to up to 90 million tonnes by 2040.¹

Longer term, a decarbonized global shipping sector will become one of the largest demand sources for green hydrogen, projected to account for approximately 15 percent of total green hydrogen demand by 2050, providing a clear long-term dependable demand signal to the industry.²

However, creating this virtuous circle of demand and supply will require fast and bold action. This can be achieved by leveraging what has emerged as a clear opportunity for the shipping sector and green hydrogen producers to mutually reinforce our actions. Confidence that green hydrogen production can sufficiently scale up in the next decades to provide fuel for new zero emissions vessels will provide the maritime sector the security it needs to commit to Paris -aligned targets and strategies. At the same time, a strong demand signal, like the ambition of 19 global brands through the Cargo Owners for Zero Emission Vessels (coZEV) initiative to only use ocean freight services powered by zero emission fuels by 2040, will provide green hydrogen investors and financiers with the security needed to support rapid growth. Close collaboration between green hydrogen producers and shipping actors – exemplified by this joint statement—will therefore be vital to craft a successful direction of travel and engender the confidence that actors on the ground - whether national governments or ports – need to create the enabling conditions and investments that make wide scale transformation possible.

¹ Five percent zero emission fuels by 2030 needed for Paris-aligned shipping decarbonization. (2021, March). Getting to Zero Coalition.

² Making the Hydrogen Economy Possible. (2021, April). Energy Transitions Commission.

The signatories of this joint statement include some of the largest green hydrogen developers and producers and some of the largest and most influential actors in the maritime value chain and we are committed to activating this virtuous cycle. We are thus making the following statements:

We, the undersigned members of the global shipping sector, are collectively committed to full decarbonization of the maritime sector, beginning with a shift to use at least 5 percent scalable zero emission fuels across the maritime sector in 2030, that will provide a dependable and ambitious demand signal that will help catalyze investments in at-scale green hydrogen production. In turn, we, the undersigned members of the green hydrogen value chain, will commit to the goal of providing at-scale green hydrogen/hydrogen-derived fuels to ensure an affordable and minimally disruptive transition for the global shipping sector.

More specifically:

- We, companies that work across the shipping value chain, are committed to full decarbonization of the sector by 2050 at the latest, which will drive steep demand for zero-emission fuels
- We, the Getting to Zero Coalition, are jointly pursuing the shared ambition of having commercially viable zero-emission vessels operating on deep seas from 2030 and we recognize that green hydrogen and derived fuels, being scalable zero emission fuels, will play a central role for meeting that target and for reaching full decarbonisation.
- We, Aspen Shipping Decarbonization Initiative, are working collaboratively with cargo owners through Cargo Owners for Zero Emission Vessels toward their shared ambition to only use ocean freight services powered by zero emission fuels by 2040.
- We, green hydrogen developers and producers and members of the Green Hydrogen Catapult pledge to work towards providing sizeable shares of the 5.5-million-ton 2030 production target for use by the shipping sector. In fact, existing commitments made by the Green Hydrogen Catapult would alone be enough to supply 90 percent of the green hydrogen needed by the shipping sector by 2030.

We are confident this collaboration will have lasting implications for both shipping and green hydrogen, as well as for the global climate.

Together, we call on others in our sectors to make similar commitments. These should include:

- Commitments by green hydrogen producers to work with us to collectively meet at least a 5.5-million-ton 2030 production target for use by the shipping sector
- Commitments by ship owners, operators, and financiers to invest in zero-emission vessels and the production of zero emissions fuels to meet the goal of 5 percent zero-emission fuels use by 2030 and rapid scaling thereafter
- Commitments by implementers and users of green corridors to implement a rapid ramp up of zero emission shipping over coming years
- Commitments by ports to invest in green hydrogen infrastructure projects to support re-fueling of ships, and to become part of green corridor projects which help further incentivize the production of green hydrogen for shipping fuels

Importantly, we also call on national governments and the International Maritime Organization (IMO), which regulates international shipping, to match our ambitions by adopting bold targets and policy measures. This will be vital to enable the wide scale transition of the maritime sector that is needed to align with a 1.5C pathway. We call for:

- The IMO and member states to set a goal of 100 percent emission reductions on a well-to-wake basis for the maritime sector by 2050, with robust interim targets for emission reductions by 2030 and 2040.
- The IMO to include in its revised GHG strategy an interim target to incentivize at least 5 percent zero-emission fuels use by 2030.
- Local and national governments to rapidly advance and scale green shipping corridors that include the infrastructure and workforce required to use zero-emissions fuels and support zero emissions vessels.

The window for action is now – the IMO is in the process of revising its greenhouse gas targets and strategy and adopting the measures that, along with further green corridors and commitments from private sector actors, will set the path for decarbonization of the sector. The IMO’s Revised GHG Strategy, scheduled to be adopted in spring 2023, must be ambitious or we risk putting 1.5 degrees out of reach and/or making the shipping sector vulnerable to a delayed, costly, and disruptive transition.

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