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Copenhagen Infrastructure Partners Develops Pioneering Ammonia Bunkering Operations Manual to Support Safe Fuel Transition

As a leading developer of clean ammonia, Copenhagen Infrastructure Partners (CIP), through its Energy Transition Fund (ETF), aims to provide end-to-end solutions for safe and efficient bunkering of ammonia, working closely with industry experts and regulatory bodies such as the American Bureau of Shipping (ABS).

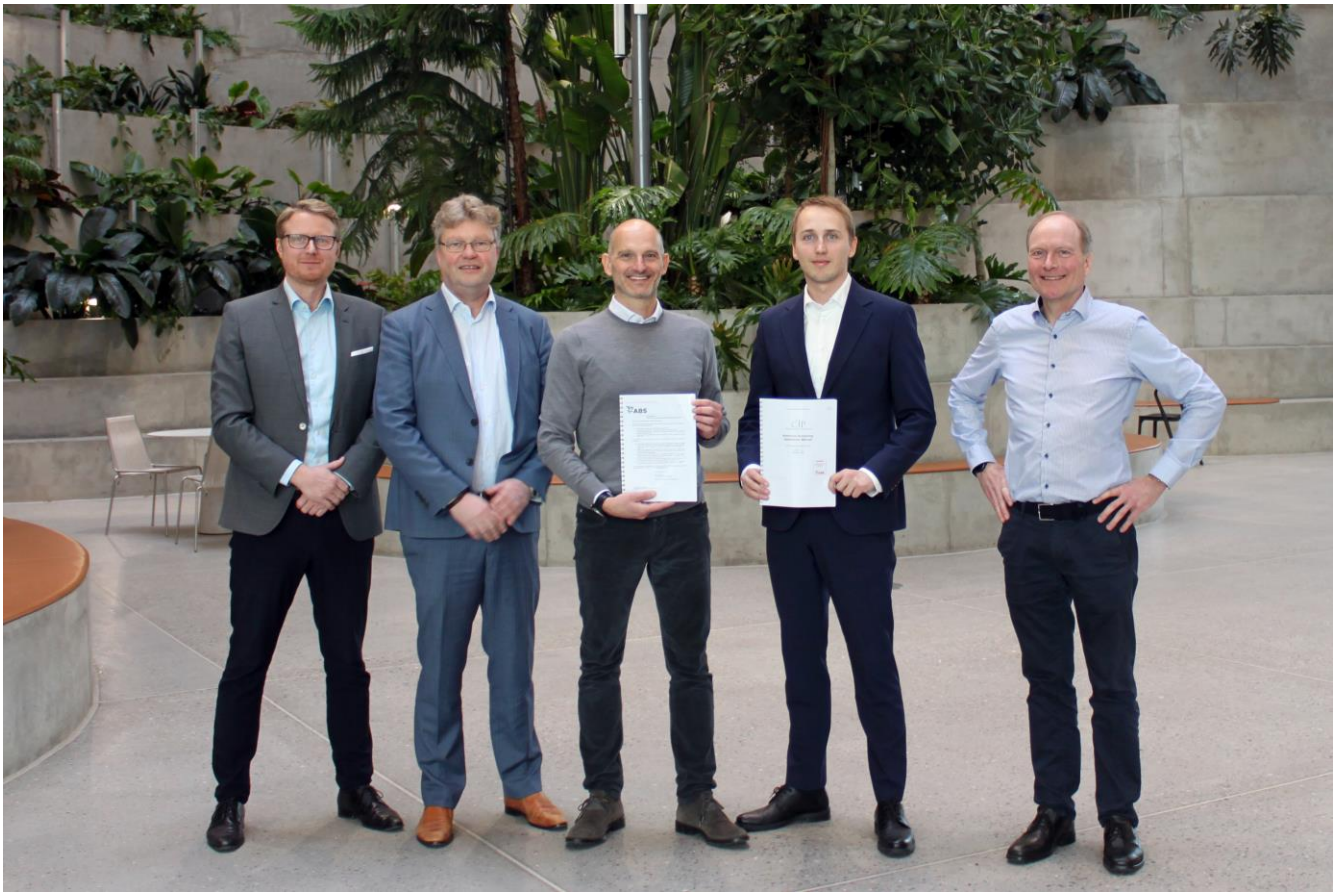

Image from the left: Jens Jødal Andersen (CIP), Rene Laursen (ABS), Daniele Bottino (ABS), Johan Thybo (CIP), Niels Lindegaard (CIP consultant) at CIP's HQ. Copenhagen, February 2025.

To support the safe adoption of ammonia as a marine fuel, ETF has developed a pioneering Ammonia Bunkering Operations Manual in collaboration with leading gas experts and reviewed by the American Bureau of Shipping (ABS). This manual provides a structured framework for safe and efficient ammonia bunkering, aligning with future IMO procedures and evolving gas codes. By detailing critical safety protocols, it ensures the protection of personnel, vessels, and the environment during bunkering operations. ETF will continue refining the manual in collaboration with key stakeholders as industry standards progress.

The 73-page bunkering manual builds upon existing gas carrier procedures for loading, discharging, and ship-to-ship transfers, adapting these established protocols to suit bunkering operations. As a next step, ETF will develop a Fuel Handling Manual for customers, providing guidance on managing bunkered ammonia, including emergency response procedures and safety drills to ensure crew preparedness.

Port Collaboration and Industry Alignment

ETF has engaged port authorities and industry stakeholders to refine its approach to ammonia bunkering. Through ongoing discussions with the Port of Rotterdam (POR), Port of Sines (APS), and Duisport, ETF has gathered insights to align its bunkering procedures with port infrastructure, safety requirements, and operational best practices.

The ammonia project MadoquaPower2X – a partnership between ETF and Madoqua – has already put in place a strategic MOU with POR, APS and Dusiport to develop a Maritime Green Corridor between Portugal and Northwest Europe hub for renewable supply chain of green hydrogen derivatives, including ammonia and methanol. Building on this foundation, ETF will continue to operationalise its Bunkering Operations and Fuel Handling standards initiative by collaborating with ports, shipping operators, and regulatory bodies to support the safe and efficient adoption of ammonia as a marine fuel.

Johan Thybo, Business Development Manager, CIP Energy Transition Fund

"We believe ammonia will be the dominant green marine fuel of the future, as it is a zero-carbon fuel with no scalability restrictions and low production costs relative to other e-fuels. The development of our Ammonia Bunkering Operations Manual marks a significant milestone in our commitment to safe and sustainable ammonia delivery and our partnerships with port authorities, governments, and shipping companies are crucial for enabling the ammonia transition."

Marloes Ras, Co-founder & Chief Commercial Officer, Madoqua

"Energy transition is a journey, where partnerships are key to success. Our recent ports initiative is meant to make this approach a reality. Developing new generation facilities focused on producing e-fuels is just one piece of the integrated green fuel corridor puzzle. A significant amount of existing port, bunkering services and transportation infrastructure must be either re-purposed, augmented or built to meet the upcoming demand for e-fuels from the shipping and end use industry".

Rene Laursen, Director of Fuels and Technology, ABS

"*The production of ammonia is experiencing significant growth. ABS has observed a substantial increase in orders for new VLAC ships, specifically designed for transporting ammonia, and some of them are also going to be fueled by ammonia. This surge is driven by the expanding market for ammonia as a green marine fuel and a green alternative to coal in power plants. To support this transition towards cleaner marine fuel, ABS is providing guidelines and advisory papers to assist the shipping industry."*