



Press release

## GTT, BLOOM ENERGY and PONANT EXPLORATIONS GROUP partner on integrated energy system for sustainable shipping

Paris, 15 October 2025 – GTT, BLOOM ENERGY and PONANT EXPLORATIONS GROUP today announced a joint innovation project to develop an integrated energy system combining Solid Oxide Fuel Cells (SOFC) powered by LNG¹ with Marine Carbon Capture designed to cover the vessel's energy needs related to onboard consumption. This breakthrough system is expected to equip PONANT EXPLORATIONS GROUP's future *Swap2Zero* cruise vessel by 2030, which will be propelled by wind-assisted system and fuel cells.

As part of this project, GTT will design and develop a Marine Carbon Capture system compatible with BLOOM ENERGY's SOFC technology. This integrated solution will supply auxiliary electricity for the vessel, covering hotel load such as lighting, hot water, and onboard services, while also capturing CO<sub>2</sub> from the exhaust gases. This dual approach, combining emission reduction and the reuse of low-temperature energy from the ship's cryogenic installations will further enhances the overall efficiency of the SOFC system through optimised thermal management.

This initiative reflects the partners' shared commitment to advancing the decarbonisation of maritime transport. By combining their expertise, they aim to develop next-generation onboard energy solutions that demonstrate the critical role of advanced technologies in this transition, supporting the International Maritime Organization's (IMO) objectives and accelerating the shift towards low-emission operations.

Philippe Berterottière, Chairman and CEO of GTT, commented: "Combining GTT's technology and expertise with our partners' is how we will design the ships of the future and accelerate the decarbonisation of maritime transport. This project reflects our shared ambition to deliver high-performance and innovative solutions that support the sector. We are proud to contribute to this ambitious and forward-looking initiative."

Aman Joshi, Chief Commercial Officer of BLOOM ENERGY, commented: "We see solid oxide fuel cells as a cornerstone of the maritime industry's low-carbon future. We're proud to contribute to the Swap2Zero project, an ambitious collaboration focused on developing next-generation vessels aligned with the IMO's carbon reduction vision. Powered by LNG, BLOOM

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<sup>&</sup>lt;sup>1</sup> Liquefied Natural Gas





Press release

ENERGY's high-efficiency solid oxide fuel cell system not only delivers best-in-class electrical conversion but also captures and repurposes waste heat for onboard heating and cooling loads. By integrating fuel cells with onboard carbon capture and sequestration, this initiative exemplifies how innovation and collaboration can accelerate the transition to cleaner, more sustainable shipping."

Mathieu Petiteau, Newbuilding and R&D Director of PONANT EXPLORATIONS GROUP, commented: "This partnership is a key milestone in developing innovative and efficient ways to capture CO<sub>2</sub> and embodies our commitment to finding new solutions to decarbonising the maritime industry. It also marks another step forward for our Swap2Zero vessel project, cofunded by the European Union Innovation Fund and France 2030. It represents an important step towards delivering the next generation of low-emission vessels."





Press release

## **About GTT**

GTT is a technology and engineering group with expertise in the design and development of cryogenic membrane containment systems for use in the transport and storage of liquefied gases. Over the past 60 years, the GTT Group has designed and developed, to the highest standards of excellence, some of the most innovative technologies used in LNG carriers, floating terminals, onshore storage tanks and multi-gas carriers. As part of its commitment to building a sustainable world, GTT develops new solutions designed to support ship-owners and energy providers in their journey towards a decarbonised future. As such, the Group offers systems designed to enable commercial vessels to use LNG as fuel, develops cutting-edge digital solutions to enhance vessels' economic and environmental performance, and actively pursues innovation in the field of low-carbon solutions.

GTT is listed on Euronext Paris, Compartment A (ISIN FR0011726835 Euronext Paris: GTT) and is notably included in the CAC Next 20, SBF 120, Stoxx Europe 600 and MSCI Small Cap indices.

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## **About Bloom Energy**

Bloom Energy empowers enterprises to meet soaring energy demands and responsibly take charge of their power needs. The company's fuel cell system provides ultra-resilient, highly scalable onsite electricity generation for Fortune 500 companies around the world, including data centers, semiconductor manufacturing, large utilities, and other commercial and industrial sectors. Headquartered in Silicon Valley, Bloom Energy has deployed 1.5 GW of low-carbon power across more than 1,200 installations globally.

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## **About PONANT EXPLORATIONS GROUP**

Explore to Inspire: explore to better understand, learn, share and protect.

PONANT EXPLORATIONS GROUP has been committed to purposeful voyages of exploration, and more responsible tourism for over 35 years. Renowned for their expertise in exploration cruises, its brands - PONANT EXPLORATIONS, Paul Gauguin Cruises, Aqua Expeditions and PONANT YACHTING - operate human-scale ships (ranging from 4 to 165 staterooms and suites), offering a refined, authentic, and inspiring experience. PONANT EXPLORATIONS GROUP is owned by Artémis, the holding company of the Pinault family.

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