



PRESS RELEASE

RINA Grants ST Engineering Marine Approval in Principle for Hydrogen Fuel Cell Retrofit on a Fast Passenger Ferry

The Approval in Principle was formally presented to ST Engineering Marine during Singapore Maritime Week

Singapore, 23 April 2026 - RINA has granted an Approval in Principle (AiP) to ST Engineering Marine for a retrofit concept involving the installation of a hydrogen-powered fuel cell system onboard Asean Raider I, a 25-metre aluminium fast passenger ferry operated by BatamFast.

The AiP covers the substitution of one of the vessel's auxiliary diesel generator sets with a hydrogen fuel cell system, supported by supplementary lithium-ion batteries. The proposed solution aims to reduce carbon emissions while ensuring appropriate levels of safety, performance and regulatory compliance for passenger operations.

The assessment was carried out in accordance with the process described in the RINA Guide for Approval in Principle for Novel Technologies, based on the technical criteria set out in the RINA Rules for the Classification of Ships, the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code) and the International Code on Intact Stability.

The AiP activities were performed by RINA's South Asia Pacific Plan Approval Centre, which supported the project through the assessment of this novel application of hydrogen fuel cell technology to an existing fast passenger ferry.

The Approval in Principle certificate was presented to ST Engineering during Singapore Maritime Week.

Lim Nian Hua, Deputy President, Marine, ST Engineering said, "This Approval in Principle represents a key feasibility milestone in expanding our retrofitting capabilities, as we explore practical pathways to introduce hydrogen fuel cell technology into maritime operations. Achieved in collaboration with RINA, it validates the robustness of our retrofit concept and demonstrates our engineering expertise to safely integrate new technologies into existing vessels. This work will advance the adoption of lower-emission solution for maritime applications, while maintaining a strong focus on safety and regulatory compliance."

"This project demonstrates how Approval in Principle can be used as an effective tool to assess innovative solutions at an early stage, particularly for alternative fuels and energy systems," added Yong Song PANG, Executive South Asia Pacific Marine Director. "By supporting this feasibility study, RINA aims to facilitate informed design decisions and help smooth the transition from concept to detailed engineering for novel technologies applied to existing vessels."

RINA, leading certification and engineering company, provides a wide range of services across the Energy, Marine, Infrastructure & Mobility, Certification, Industry and Real Estate sectors. In December 2023, alongside the majority shareholder Registro Italiano Navale, Fondo Italiano d'Investimento SGR entered the shareholding structure guiding a pool of co-investors. With revenues in 2024 of 915 million euros, over 6,600 employees and 200 offices in 70 countries worldwide, RINA is a member of key international organizations and an important contributor to the development of new legislative standards. www.rina.org



Contacts

RINA

Giulia Faravelli
Global Communication Executive Director
+39 348 6805876
giulia.faravelli@rina.org

Paolo Ghiggini
Global Media Relations, Social Media &
Content Director
+39 340 3322618
paolo.ghiggini@rina.org

Victoria Silvestri
International Media Relations Manager
+39 334 6539600
+44 7825 842731
victoria.silvestri@rina.org