NEMOSHIP

WP1 - Experiences learnt and requirements

D1.3: Use cases definition and demonstration requirements - Public Summary:

The ambition of the NEMOSHIP project is to develop, test and demonstrate new innovative technologies, methodologies and guidelines to accelerate large BESS deployment and optimal exploitation toward 2030 on both hybrid and full-electric arrangement. To help achieve this ambition, NEMOSHIP will develop a modular and standardised battery energy storage solution that is able to exploit heterogeneous storage units and a cloud-based digital platform to enable data-driven, optimised, and safe exploitation. The project will demonstrate the maturity of these innovations at TRL 7 for hybrid ships as well as their adaptability towards fully electric ships. This report focuses on the description of the use cases and the definition of the requirements, from the perspective of the end users, for the demonstration of those NEMOSHIP innovations. Those demonstration requirements are defined through four relevant vessels and related use cases: Normand Ferking is an Anchor Handling Tug Supply vessel (AHTS) from Solstad that can be also used as a Platform Supply Vessel (PSV). This vessel will be retrofitted with a 1MWh modular BESS designed and installed during the project. Le Commandant Charcot is a newly designed polar exploration passenger vessel from Ponant which is already equipped with a 4.5 MWh BESS. This vessel will support the demonstration of the cloud-based digital platform to optimise its operations and safety. Two use cases with full-electric vessels for analysing by simulation the applicability of the solutions to facilitate full battery electric transit at short and mid-term.

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