

Capital Clean Energy Carriers Corp, Lloyd's Register and Samsung Heavy Industries to move forward on floating data centre designs

June 3, 2026



The collaboration underlines the growing role of maritime in supporting the rapid expansion of artificial intelligence-driven data demand.

Capital Clean Energy Carriers Corp has signed a Memorandum of Understanding (MOU) for Joint Development Project (JDP) with Samsung Heavy Industries (SHI) and Lloyd's Register (LR) for a floating data centre (FDC) design.

Presented at Posidonia 2026, the JDP covers a floating data centre concept that uses proven shipbuilding methods to create scalable offshore digital infrastructure. By combining marine engineering with advanced data centre technology, it offers an alternative to land-based facilities, where limits on space, power and cooling are becoming more pressing.

The concept uses standardised shipbuilding processes to reduce delivery times, while integrating its own onboard power generation system to ease pressure on shore grids and utilising seawater cooling. LR's technical assurance confirms the feasibility of SHI's design, including its structural integrity, safety considerations and integration of onboard power generation.

LR worked closely with SHI throughout the design assessment process, applying its experience in offshore and complex asset assurance to evaluate the concept against applicable rules and emerging industry requirements.

FDCs present a practical route to address the increasing demand for digital infrastructure, driven by the rapid growth of AI technologies. Built offshore on rivers or at sea, they offer a potential route around the limits facing conventional land-based facilities.

Jerry Kalogiratos, CEO, Capital Clean Energy Carriers Corp, said: "This collaboration with Samsung Heavy Industries and Lloyd's Register reflects our commitment to innovation and to exploring new opportunities at the intersection of maritime and digital infrastructure.

Nick Brown, CEO, Lloyd's Register, said: "This agreement highlights how owners and yards are rethinking asset strategy as digital infrastructure demand accelerates. Early-stage assurance will be important as projects scale, helping developers de-risk complex designs, secure investment and bring new offshore assets to market with confidence in their safety, performance and long-term efficiency."

Young-kyu Ahn, Chief Technology Officer at Samsung Heavy Industries, said: "This FDC concept represents a natural extension of our shipbuilding capabilities into the digital infrastructure sector. Combined with sustainable energy solutions, it will set new standards in the global data market and serve as a key driver of future growth."

"As AI continues to drive rapid growth in demand for computing power, floating data centres offer a scalable and flexible solution, with the unique advantage of mobility, enabling capacity to be deployed where energy, connectivity and demand are greatest. We are delighted to contribute our expertise to this pioneering project."

Lloyd's Register Advisory has also signed a separate MOU with SHI at Posidonia to support the development and commercialisation of FDC designs. The agreement will focus on feasibility, techno-economic modelling and business case development for the FDC concept.