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ENVIRONMENTAL AWARD 2025

ADNOC Logistics & Services

ADNOC Logistics & Services' Ship to shore power initiative to reduce CO2 and GHG emissions

As part of its decarbonisation efforts and ADNOC Group's target of a 25% emissions intensity reduction by 2030, ADNOC Logistics & Services (ADNOC L&S) has implemented the 'Shore to Ship Power' Project at its ADNOC L&S Musaffah Base Supply Port and L&S Riash Supply Port (Ruwais).

At the L&S Musaffah Supply Base, the Port Jetty facilities provide shore power to vessels while they are stationed and berthed alongside the Jetty. This allows vessels to turn off their diesel engines and have all utilities powered from the shore power facilities, drawn from an 11 KV Grid. The Musaffah Supply Base accommodates over 60 OSVs, making cumulative port calls of 5,000 per year. By utilising shore power, about 820,000 I.G. of diesel fuel consumption is optimised.

A similar approach was implemented at the L&S managed Riash Port (Ruwais), with a 415KV grid. The Shore to Ship Power concept at ADNOC L&S's key supply ports eliminates GHG emissions from diesel engines while vessels are berthed at the Ports' Jetty. It also reduces fuel consumption and maintenance costs of the generators. By assessing the CO2 emitted through GHGs by fuel consumption and applying the thumb rule of 2.68 kg of CO2 emitted per litre of diesel fuel consumed, this initiative reflects approximately 9,900 tonnes of CO2 emission reduction over a year.

Caterpillar

The IMO Tier III-compliant Cat C32

Caterpillar Marine's four-stroke Cat C32 main engine has a high power-to-weight ratio. A popular choice for offshore vessels, these power-dense high-speed diesel engines can produce between 600 hp to 1,800 hp at 2,300 rpm, depending on how it is set up, with peak torque kicking in at 1,500 rpm. The engine is IMO Tier III compliant, with the addition of a selective catalytic reduction system.

Equinor

Long-term charters supporting ammonia as a marine fuel

Equinor has ambitions to halve its emissions from Norwegian maritime operations by 2030. The Norwegian energy major has been nominated for its tendering process and working with shipowners to develop the next generation of ammonia-fuelled platform supply vessels (PSVs). Equinor is providing a long-term charter of *Viking Energy*, the first PSV to operate commercially on the carbon-free fuel in 2026. Under long-term charter with the Norwegian oil and gas major until 2030, the LNG dual-fuel battery-hybrid PSV supplies offshore installations on the Norwegian continental shelf.

Backed by €5M (US\$5.6M) grant from the EU Horizon Europe programme, the Apollo project will see *Viking Energy* converted in 2026 with a newly developed four-stroke ammonia dual-fuel Wärtsilä 25 engine, AmmoniaPac fuel gas supply system, Wärtsilä Ammonia Release Mitigation System and exhaust after-treatment equipment supplied by Wärtsilä.

By converting the vessel to ammonia operation, Eidesvik Offshore and Wärtsilä expect to cut emissions from *Viking Energy* by at least 70%. Equinor and Eidesvik Offshore have a 21-year history of collaboration on environmental technology on *Viking Energy*.



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SEACOR Marine

Hybridising its fleet of platform supply vessels to improve fuel consumption and reduce emissions

SEACOR Marine continues to lead the path toward sustainability by hybridising its fleet of platform supply vessels (PSVs), further solidifying its commitment to reducing environmental impact and enhancing operational efficiency. In a recent announcement, SEACOR revealed plans to retrofit four additional PSVs with battery-hybrid power systems by the end of 2025, marking a significant step in its ongoing efforts to contribute to the global push for lower emissions in the maritime industry.

The four vessels covered in the contract are *SEACOR Ohio*, *SEACOR Alps*, *SEACOR Andes* and *SEACOR Atlas*. Once all the vessels have been retrofitted, more than 50% of SEACOR Marine's PSV fleet will be hybrid powered.

The four PSVs, all of which will feature the Kongsberg Maritime UT771 CDL Design, will be equipped for battery-hybrid operation with the installation of a containerised deckhouse energy storage system and associated switchboards and thruster control systems. The upgrade will also include a new Kongsberg Maritime K-Pos Dynamic Positioning (DP) system installed to replace the current DP system on all four vessels.

This expansion follows SEACOR's earlier successes with hybrid technology, which have demonstrated reduced carbon footprints and operational savings. These initiatives underscore SEACOR Marine's proactive approach to sustainability, aligning its business objectives with the global transition to cleaner energy and ensuring its fleet is future ready.