

Eld Energy Awarded Approval in Principle by DNV for Offshore SOFC Power Generation Unit

Tokyo, September 17, 2026 – Eld Energy AS (“Eld Energy”), in collaboration with MODEC, Inc. (“MODEC”), has received Approval in Principle (AiP) from DNV for their offshore Solid Oxide Fuel Cell (SOFC) power generation unit (Eld Power Module 120kW), designed for Floating Production, Storage and Offloading units (FPSOs).

The AiP was granted following DNV’s Technology Qualification (TQ) process, which provides a systematic, risk-based framework for evaluating and documenting the safe and reliable deployment of novel technologies for offshore applications. The AiP formally recognizes the technical feasibility and compliance potential of the SOFC system with offshore industry standards and identifies any conditions and actions needed for further qualification and full project implementation.

The Eld Power Module 120kW is a high-efficiency SOFC system developed by Eld Energy, aimed to achieve type-approval for deploying high-efficiency SOFC modules onboard FPSOs, enabling clean power generation from produced gas or alternative fuels, with future readiness for seamless integration with carbon capture systems. MODEC and Eld Energy are now working on the integration of an Eld Power Module 120kW with Carbon Capture system to enable increased efficiency through both fuel recovery and carbon abatement.



Conceptual image for Eld Power Module 120kW

Koichi Matsumiya, Chief Technical/Technology Officer of MODEC said: “MODEC aims to balance the seemingly conflicting challenges of protecting the global environment and ensuring a stable energy supply by innovative ideas using offshore floating facilities. We, together with Eld Energy, are advancing the development of innovative compact low-carbon power system by leveraging the high fuel efficiency of SOFC and their strong compatibility with Carbon Capture, aiming to expand the power supply solutions for offshore production facilities.”

Hans Fredrik Lindøyen-Kjellnes, CEO of Eld Energy said: “This milestone shows that our novel offshore power generation concept can meet the demanding safety standards of the industry. Early engagement with Class has been very helpful in bringing the product forward. This marks a significant step towards decarbonization of offshore operations.”

Erik Carlberg, Director of Business Development Offshore Classification, DNV said: “Across the offshore and maritime industries, we are looking for flexible and efficient solutions that can help us reduce emissions, while keeping options open as alternative fuel production develops. SOFC technology can fit this need as it is not only highly efficient but can also utilize a wide range of alternative fuels at highly efficient conversion levels. This AiP is another step forward as the industry works towards maturing and scaling this technology for wider commercial adoption. We congratulate MODEC and ELD Energy on the award of the AiP and look forward to continuing to work with them on this innovative project.”



DNV presented AiP Certificate to MODEC and Eld Energy at Gastech 2026 in Bangkok, Thailand
From left to right: **Tjalve Svendsen**, CTO of Eld Energy; **Hans Fredrik Lindøyen-Kjellnes**, CEO of Eld Energy; **Erik Carlberg**, Director of Business Development Offshore Classification, DNV; **Junya Suzuki**, SOFC Project Manager, MODEC and **Jeff Knox**, Senior Technical Director, MODEC

About the Project

- The SOFC-based power generation system is designed to operate using produced gas on FPSOs and hydrogen-rich gas recycled from integrated carbon capture system. The overall power system efficiency is expected to reach up to approximately 70%.
- The DNV AiP provides independent assurance to project stakeholders, clients, and supply chain partners that the SOFC power concept is technically viable for FPSO deployment.



- As the project moves forward, MODEC and ELD will work towards the remaining technology qualification stages with DNV, addressing any outstanding uncertainties as the system is scaled and integrated for offshore production operation.
- The program aligns with MODEC's [Vision 2034](#) strategy to deliver innovative decarbonization solutions for offshore energy production, targeting significant greenhouse gas emissions reduction without compromising operational availability.

About MODEC

MODEC is a leading global provider of floating production solutions for the offshore energy sector, including Floating Production Storage and Offloading (FPSO) vessels. The company delivers Engineering, Procurement, Construction, and Installation (EPCI) services and also owns and operates FPSOs, offering comprehensive, competitive production solutions worldwide. SOFEC® Mooring Solutions is a MODEC product that provides safe, reliable, and innovative mooring systems for offshore energy applications.

For further information: <https://www.modec.com>

About Eld Energy

Eld Energy is a Norwegian technology company pioneering high-efficiency, low-emission power systems for offshore and maritime applications. The company has assembled a team of Europe's foremost experts in the design and industrialization of maritime fuel cells with the aim of decarbonizing offshore installations and shipping.

For further information: <https://www.eldenergy.com>

About DNV

DNV is the world's leading classification society and a recognized advisor for the maritime industry. We enhance safety, quality, energy efficiency and environmental performance of the global shipping industry – across all vessel types and offshore structures. We invest heavily in research and development to find solutions, together with the industry, that address strategic, operational or regulatory challenges.

For more information visit: www.dnv.com/maritime

Reference

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