

MODEC Signs Joint Development Agreement with Eld Energy to Advance an Integrated 120 kW SOFC + CO₂ Capture System for FPSOs

Tokyo, January 27, 2026 – MODEC, Inc. (“MODEC”) announced today the signing of an agreement with Eld Energy AS (“Eld Energy”), a Norwegian fuel cell system company, to jointly develop an integrated 120 kW solid oxide fuel cell (“SOFC”) and CO₂ capture system (Patent Pending) for FPSOs (Floating Production, Storage and Offloading systems). The joint development agreement covers prototype design and manufacturing for a low carbon offshore power solution, with onshore operational testing planned by 2027 and offshore demonstration targeted commence from 2028 onward.

MODEC and Eld Energy have advanced the joint design and manufacturing of [a pilot scale 40 kW SOFC offshore power system](#) since 2025, utilizing associated natural gas produced in FPSO production, building on the intrinsic advantages of SOFCs—higher efficiency and lower emissions than conventional offshore power sources such as gas turbine generators (GTGs).

The newly signed agreement scales the SOFC output from 40 kW to 120 kW, marking an important step toward phased deployment on FPSOs. In addition, the SOFC will integrate a CO₂ capture and fuel recovery unit optimized for SOFC exhaust. The development agreement aims to deliver a scalable multi-MW power system capable of meeting the full power demand of FPSOs with zero carbon intensity. These initiatives are expected to steadily enhance both the environmental performance and operational value of FPSOs.



Conception Illustration of FPSO with full scale (100 MW) SOFC installation with integrated carbon capture.



Going forward, MODEC will continue to contribute to the society by supporting a stable energy supply and reducing CO₂ emissions on FPSOs, in response to growing energy demand and the imperative of a sustainable future.



Signing Ceremony at Norwegian Embassy in Japan

(Left to Right)

Kristin Iglum, Ambassador of Norway to Japan

Hans Fredrik Lindøen-Kjellnes, CEO, Eld Energy AS

Hirohiko Miyata, President and CEO, MODEC Group

Koichi Matsumiya, Chief Technical/Technology Officer, MODEC Group

About Eld Energy

Eld Energy is a Norwegian firm that specializes in design and delivery of fuel cell systems for offshore applications. The company has assembled a team of Europe's foremost experts in the design and industrialization of maritime fuel cells with the aim to decarbonize offshore installations and deep-sea shipping. For further information: <https://www.eldenergy.com>

About MODEC

MODEC is a leading provider of floating production solutions such as Floating Production Storage and Offloading (FPSO) vessels to the offshore oil & gas industry. MODEC performs Engineering, Procurement, Construction and Installation (EPCI) activities for FPSOs, and further by owning and operating its own FPSOs, it provides oil companies around the world with comprehensive and competitive solutions for oil & gas production services.

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

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The information contained in this news release is true and accurate at the time of publication; however, it may be subject to change without prior notice.
