Developing Compact Capture Technology for Removal of Carbon Dioxide

maprocense.com

Summary

Target Emission Source: **Power Generation**

Emission Reduction Strategy: **Carbon Capture**

Project Type: **Research & Development**

Entry TRL: **6**

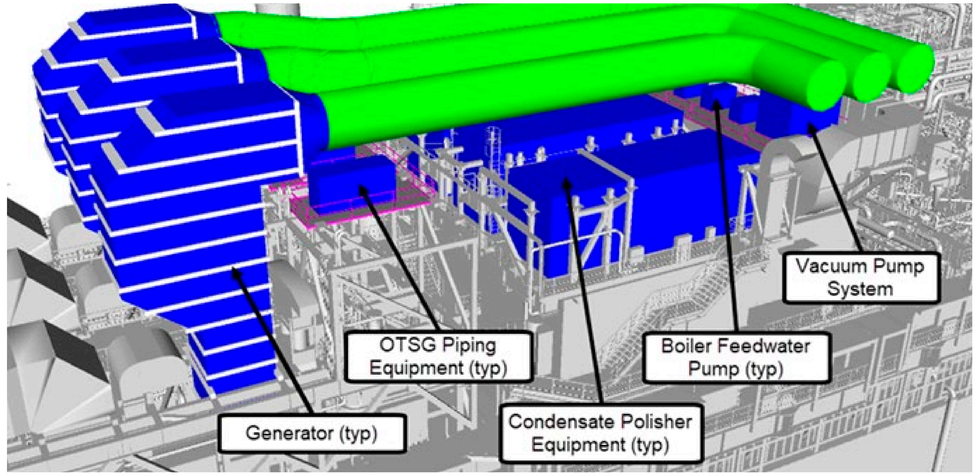
Target TRL: **7**

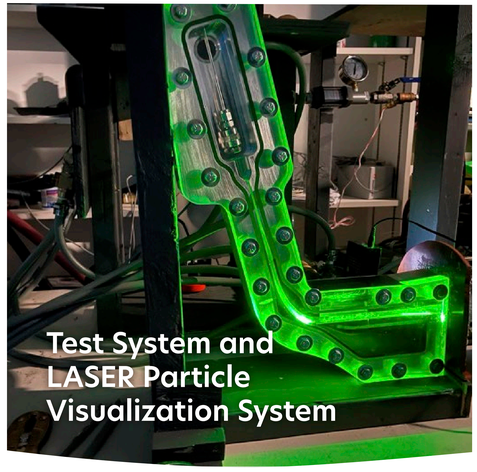
Field Trial Required: **Yes**

Projected Ready By: **2025**

The Project

M.A. Procense is developing a compact carbon capture system to remove carbon dioxide (CO_2) from the exhaust gas of offshore facilities' power generation systems, including dual fuelled gas turbines, diesel generators, and steam generation systems. The system pressurizes the exhaust gas from turbines and routes it through an expansion cooling system composed of specialized nozzles. The separated CO_2 can be further pressurized and made ready for storage.





Benefits

- Compact system addresses weight/space restrictions of offshore installations; could be implemented on brownfield/greenfieldfacilities worldwide and in other industries
- Expansion system design has no moving parts, minimizing maintenance costs
- Design incorporates existing equipment, processing systems standard on production facilities
- System uses no chemicals therefore there is no chemical waste and further environmental impact

Opportunities & Next Steps

Seeking industry partners and funding for next phase

Progress concept design to FEED and detailed engineering for construction of a large-scale demonstration prototype

Construct large scale demo (2023/24)

Commercialize technology (2024/25)

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