

ON THE MARKET OF BIOMETHANE AS A DROP-IN-MARINE-BIOFUEL: DEVELOPING A VIRTUAL GAS-GRID SOLUTION



MISSION

Prove the use of biomethane as a marine drop-in biofuel

Further develop novel technological solutions for biogas to biomethane upgrading

Retrofitting a marine diesel genset to combust biomethane as a drop-in fuel

Combustion strategies and emissions measurement and monitoring for biomethane in a marine genset

Develop an appropriate business plan to prove the feasibility of compressed biomethane in the maritime industry

Activities to enable market access via a virtual distribution network

OBJECTIVES

Progress an already prototyped (TRL 5) mobile biogas upgrading module to TRL 7

Progress an already prototyped (TRL5) mobile BioMethane Storage and Refuelling module to facilitate a virtual gas grid

Re-Design a tailored dual fuelling injection system, and retrofit an existing marine genset, as to allow fuelefficient utilisation of BioMethane in a Drop-In-fuel Injection strategy

Emissions monitoring including methane slip

INNOVATION & ORIGINALITY

- 1) Clustering of individual biogas plants and upgrading biogas onsite
- 2) Creation of a virtual gas grid able to bridge the supply gap between BioMethane production and potential consumers. Especially to facilitate BioMethane distribution in countries without CNG infrastructure
- 3) Compressed BioMethane retrofit of an existing ship for sustainable and cost-effective measure towards compliance with IMO's EEXI and CII emission regulations

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Who we are

Coordinator:

Partners:









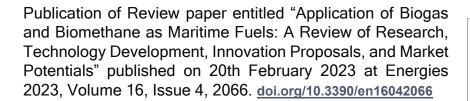


NEWS

Project launch on: The BioCH4-to-Market officially started on 1st June 2022. The project duration is 18 months.

Kick-off meeting held on 14th July 2022, the meeting took place at the premises of Petronav Ship Management Limited. The consortium discussed the workplan of the project and planned next steps for its smooth implementation.

The team is getting familiar with the engine at Petronav premises: the CMMI team visited Petronav's premises on 14th September 2022.



Procurement of equipment to facilitate emissions measurements of biomethane as a drop-in fuel (on-going process)







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FUTURE EVENTS

Planned emissions measurement activities at Petronav premises to install measurement equipment on engine on 2nd May 2023

Diesel only engine measurements on 8th - 9th May 2023

Biomethane as dual-fuel engine measurements on 15th - 16th June 2023

Participation at RIF European Researcher's Night 2023 on 29th September 2023

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