

GSP Pilot: Zero-emission fuels in LNG infrastructure





Background/goal for the pilot

Speeding up the green transition by utilizing the LNG value chain for renewable gases. Examine possibilities and obstacles both technical, safety and economics.

Long-term goal

Deliver green ammonia, biogas and synthetic methane using existing LNG infrastructure

Flexible and cost-effective transition to renewable fuels



Goal

Substantial reduction in GHG emissions today with existing low-emission solutions and move on to zero emission fuels as soon as practicable.

By using the same value chain as today, we will need less investment – meaning lower costs, more flexibility and faster transition to renewable energy.

4 work packages

Market/Demand. Investigate/describe future developments in the choice of fuel solutions for new buildings in the next few years.

Fuel. Map the status of renewable fuels, planned and existing production. Possibilities for import (certificates/guarantees of origin and mass balance).

Engines and gas system. Identify and describe solutions/investment needs for conversion from methane to NH_3 on both new and existing ships.

Infrastructure. Need for development, consider prioritization of fuel. Costs of development and/or modification of infrastructure on the distribution side, changed safety requirements.

Participants

Pilotowner	Partners			Observers
				
				
				
				

4 work packages - preliminary findings

Market/Demand. 70 % of ship owners expect to meet the target for GHG reduction in 2030. More than 80 % of them will use gas.

Fuel. Many plants for hydrogen, biogas and ammonia production are being planned. Uncertain how many will be realized. Biogas likely to come first.

Engines and gas system. Challenges and solutions for conversion to ammonia from LNG described, work on cost estimates is ongoing.

Infrastructure. Mongstad Case, issues identified and described. The 1000 m³ tank and pumps/valves will probably have to be replaced. Estimating costs for conversion and newbuild ammonia bunker facility.

Thank you



Iona bunkering LNG in Haugesund