European Commission

BIOFUELS AND BIOREFINERIES

INNOVATION FUND

Deployment of net-zero and innovative technologies

W4W: Waga 4 World

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

Over 10 million Nm3/h of methane is lost in landfills worldwide. This is a major waste of renewable energy and a significant source of GHG emissions.

WAGA ENERGY has developed the WAGABOX unit, a breakthrough technology enabling recovery of landfill gas as grid-compliant biomethane. Since 2017, the company has been deploying this solution in France through a build, own, operate and maintain business model: WAGA ENERGY purchases landfill gas from landfill operators and sells compliant biomethane to energy utilities, thanks to a feed-in tariff.

The WAGABOX solution has a double impact in terms of fighting climate change: it incentivises landfill operators to recover their gas, which contributes to significantly reduce fugitive methane emissions; and it produces clean, local renewable

COORDINATOR
WAGA ENERGY

LOCATION
Spain

CATEGORY
Energy Intensive Industries (EEI)

SECTOR
Biofuels and bio-refineries

AMOUNT OF INNOVATION FUND GRANT
EUR 2,452,401

EXPECTED GHG EMISSIONS AVOIDANCE
131,161 tonnes CO2 equivalent

STARTING DATE
01 January, 2022

ENTRY INTO OPERATION DATE
20 June, 2023

FINANCIAL CLOSE DATE
19 June, 2023

Updated on 22 April 2024

gas that can substitute common fossil natural gas. Ten WAGABOX units are operational in France. They supply around 35,000 households, avoiding 45,000 tons of eqCO2 emissions per year.

By recovering a waste management by-product, the WAGABOX unit solution provides the most cost-competitive biomethane in France (since the feed-in tariff for landfill gas upgrading is 40% lower than for anaerobic digestion plants). Existing units purify 600 Nm3/h and produce biomethane for an average price of 75€/MWh.

However, to deploy this innovation worldwide, WAGA ENERGY must sell biomethane on a merchant basis, as most countries do not offer public incentives for biomethane. A target selling price of 42-48€/MWh must be achieved to be able to sign long-term purchase agreements with energy utilities or traders. Consequently, a next-generation WAGABOX unit adapted to local regulations with higher capacity, higher performance, and lower manufacturing and operating costs is mandatory to sustain worldwide deployment.

The W4W project aims to complete the development of this specific next-generation of WAGABOX unit and move it from TRL7 to TRL8 before starting a broad international roll-out of the solution.

| Beneficiaries

SOFIWAGA ESPANA 1 SL	Spain
WAGA ENERGY	France