

Hydrogénies, les trophées de l'hydrogène 2024

Candidat

6_EcoPro-future-on-demand

06/05/2024

3-Prix de la Mobilité ferrée ou aéronautique ou maritime/fluviale émergente

Date d'enregistrement de l'utilisateur ou utilisatrice: 3 mai 2024 11:48

Formulaire: Entry in the 2024 Hydrogen Trophies - ID du formulaire : 930

RGPD appliqué: 3 mai 2024 11:48

Title of the project: EcoPro future on demand

DESCRIPTION OF THE PROJECT: The EcoPro system represents a groundbreaking advancement in engine technology, focusing on enhancing the combustion process to mitigate emissions at the very core of the engine.

CATEGORIES: Rail, Aeronautic, Maritime or Fluvial Transport Prize, Emerging Technological Solution Prize

Périmètre du budget (EN): 52 000€

Name of the funding organization: Department for Transport (DfT) du Royaume-Uni

Date de financement (EN): 01/04/2024

Date / période de réalisation (EN): 01/04/2024 - 30/09/2024 (6 months)

Name of company: Ecomotus

Commercial register number and city : 09519441

Address Street: The Steam Shop, Pottery Road, Bovey Tracey

Postal code : TQ13 9TZ

City & Country: Devon, United Kingdom

Name and position of general director: Mr Jason Munro

Telephone number: +44 7801 965651

Name and position of person to contact concerning the candidacy : Ms Marlène Moutel

E-mail address: marlene@laminak.energy

Mobile number: +33676179912

Raison sociale des différentes entités partenaires du projet: Ecomotus

Description : H2T3 – aims to prove that existing Marine engines can achieve Tier III compliance through installation of the EcoPro Catalytic Hydrogen Electrolyser System.

Innovative character: The integration of smart hydrogen into the air/fuel mixture to create an enriched blend marks a pivotal advancement in reducing pollution from the combustion engine. This creates the improved burn process, significant reduction in carbon buildup within the engine and the decrease in harmful emissions expelled through the exhaust system. This innovative approach capitalises on the oxygen atom's valence electrons attraction to the hydrogen atom's valence electrons, reducing the amount of oxygen atoms bonding with nitrogen to form NOx compounds. The result is a more efficient combustion with less pollution.

Technological solutions or new uses proposed: From small engines with a single electrolyser to multiple boards and banks of electrolysers, the EcoPro is modular and standalone and fully scalable according to the requirements of the engine. Multiple banks of electrolysers are each individually fused, powered and controlled through their own smart controllers allowing for precise remote adjustment, monitoring and optimisation.

What are the elements you feel make your project deserve a prize?: In improving the quality of the combustion process, the EcoPro reduces emissions in two ways - Directly reducing the emissions being expelled by the engine Extending the fuel range and reducing the amount of fuel being consumed.

Document attaché: EcoPro Info.pdf

9-Prix de la Solution technologique

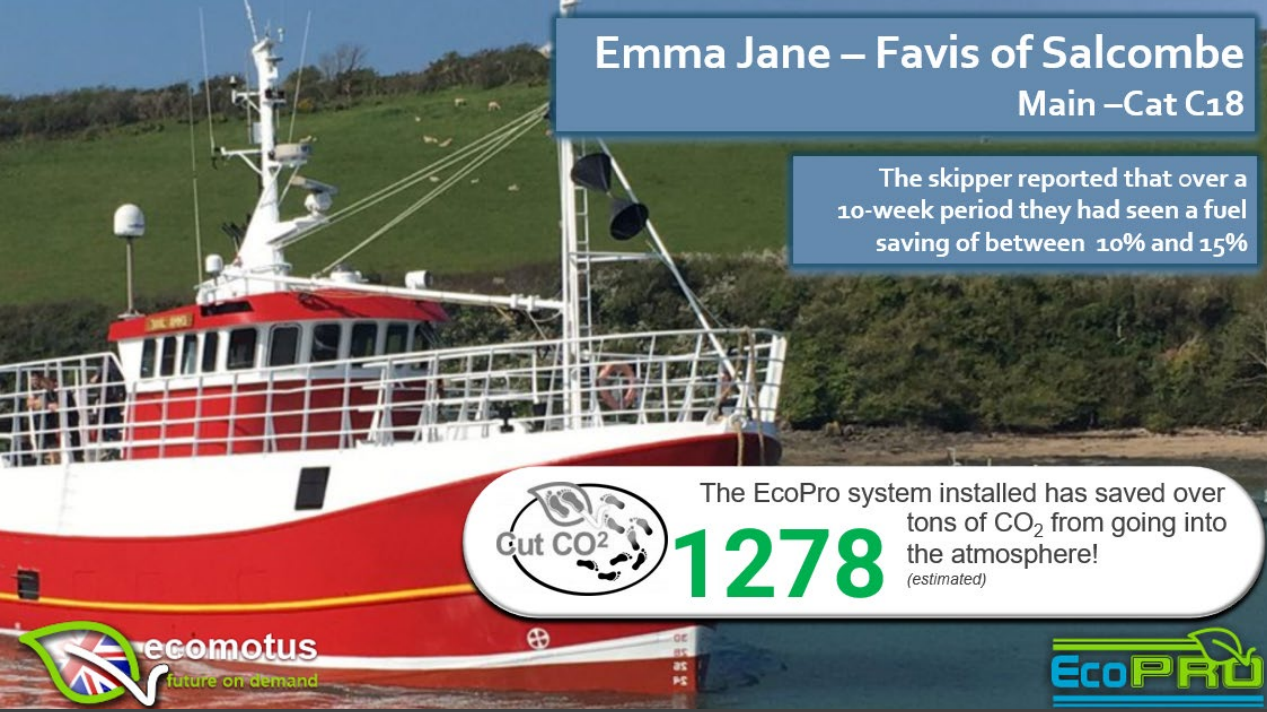
Suitable for all Internal Combustion Engines

The EcoPro works by improving the way the engine burns its fuel reducing emissions at the heart of the engine significantly cutting pollution at the point of combustion before the exhaust

- Standalone / no moving parts
- Modular
- ICE (inboard and outboard)
- Monitored and remotely adjustable



EcoPRO

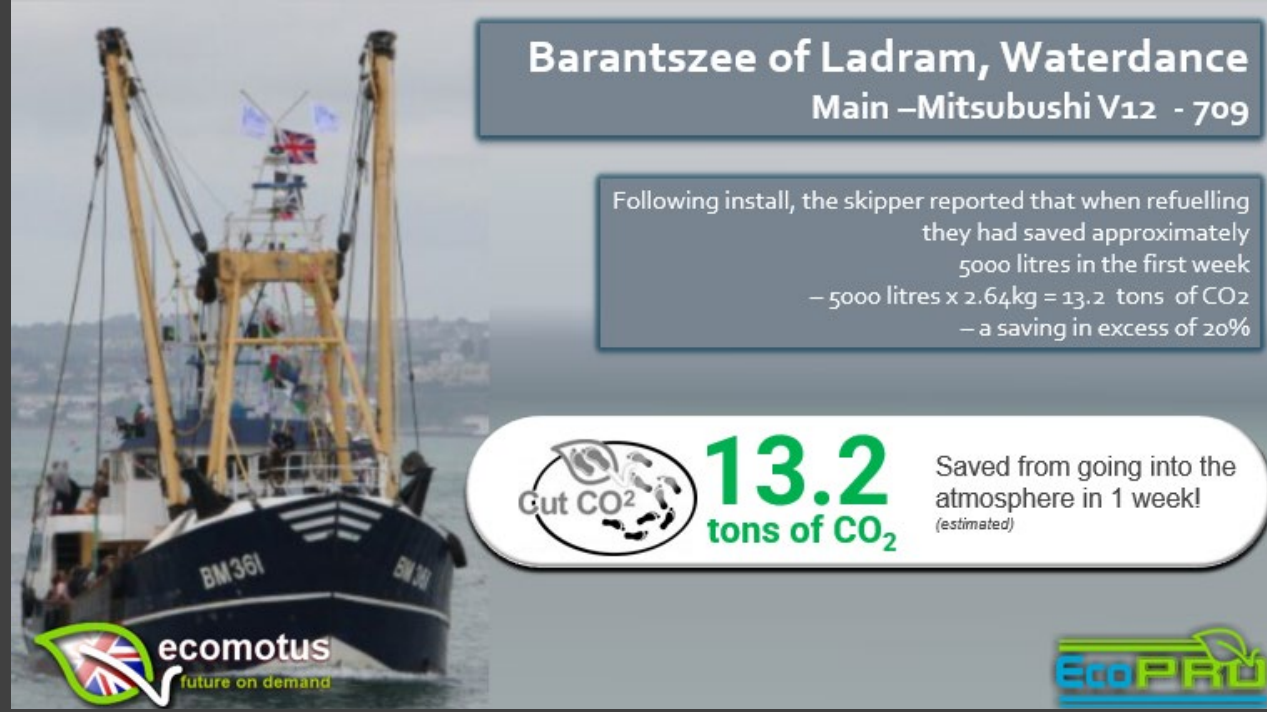


Emma Jane – Favis of Salcombe

Main –Cat C18

The skipper reported that over a 10-week period they had seen a fuel saving of between 10% and 15%

The EcoPro system installed has saved over tons of CO₂ from going into the atmosphere!
1278 (estimated)



Barantszee of Ladram, Waterdance

Main –Mitsubishi V12 - 709

Following install, the skipper reported that when refuelling they had saved approximately 5000 litres in the first week
– 5000 litres x 2.64kg = 13.2 tons of CO₂
– a saving in excess of 20%

13.2 tons of CO₂ Saved from going into the atmosphere in 1 week!
(estimated)



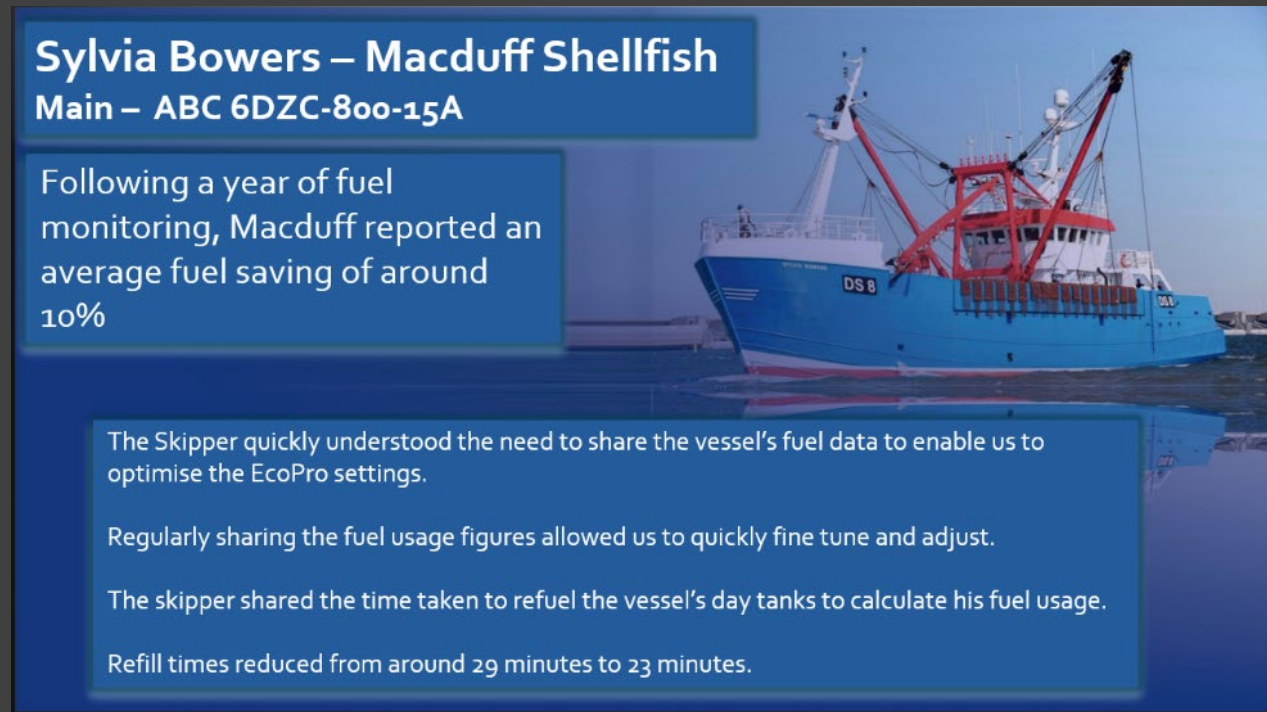
Challenger III – Rival Fishing Co.

Main –Cat C18

Not only are we improving profitability, but we are also reducing our business's carbon footprint at source."

"We have been using the Ecomotus EcoPro system for one month now, and the signs are really encouraging..."

We are using less fuel and have reduced our carbon emissions significantly. This is a win-win situation for us.



Sylvia Bowers – Macduff Shellfish

Main – ABC 6DZC-800-15A

Following a year of fuel monitoring, Macduff reported an average fuel saving of around 10%

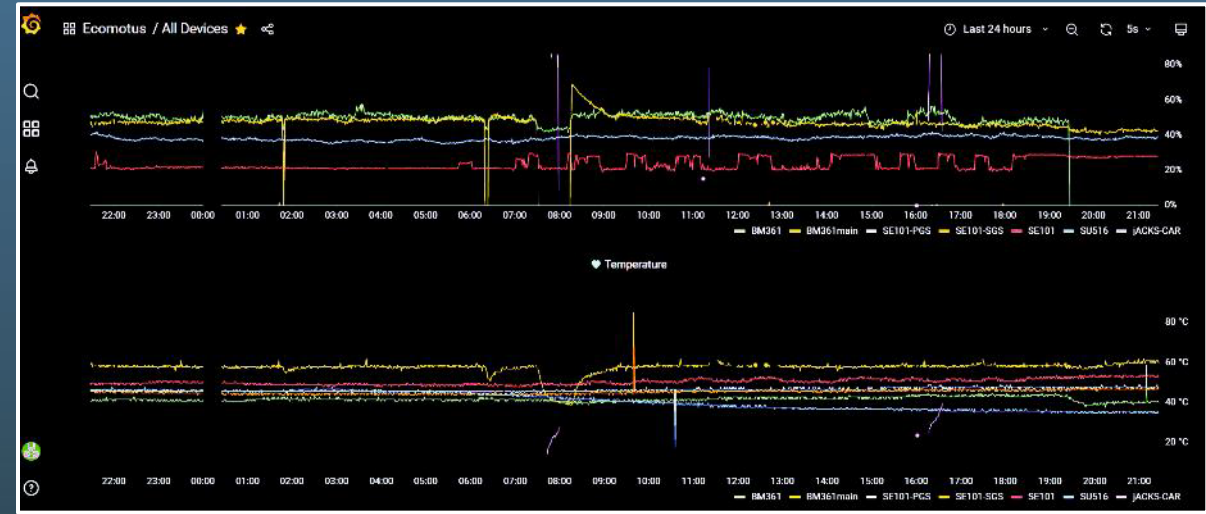
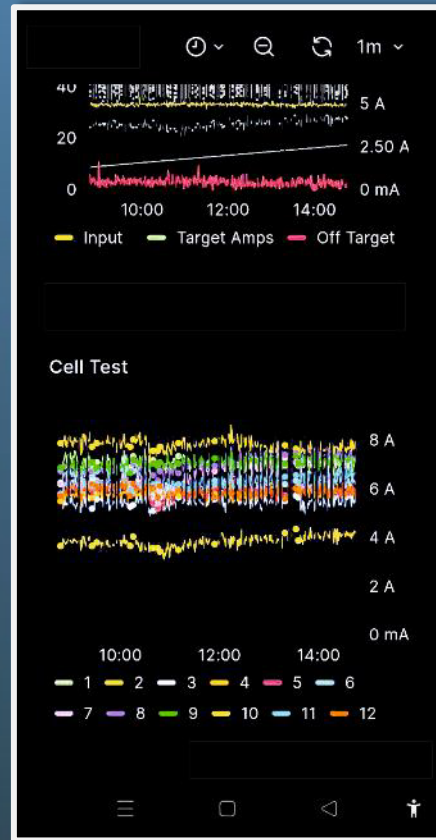
The Skipper quickly understood the need to share the vessel's fuel data to enable us to optimise the EcoPro settings.

Regularly sharing the fuel usage figures allowed us to quickly fine tune and adjust.

The skipper shared the time taken to refuel the vessel's day tanks to calculate his fuel usage.

Refill times reduced from around 29 minutes to 23 minutes.

Remote Monitoring and Optimisation



- Using Wi-Fi we will monitor and adjust your hydrogen settings to optimise your system.
- We will send you a link to your dashboard, so that you can see how your system is working. You will also be able to submit your fuel data each time that you refill.
- We will set up a WhatsApp link with you to enable you to contact us whenever needed.



ELECTROLYSER

www.ecomotus.co.uk



Helping the Marine industry to be cleaner and greener