

Belgium

Future Fuels in practice: Field test with low carbon liquid fuel HVO

Why?

HVO (Hydrotreated Vegetable Oil) is a paraffinic and carbon-neutral fuel. The feedstock for this product is vegetable oil, waste fats, waste oils. HVO is used in various sectors, including domestic heating, in different EU countries. In Belgium however it is currently only available for use in the transportation sector.

Therefore, Informazout, the Belgian information centre dealing with the rational use and saving of heating oil, decided to take the lead and to disclose the application of this climate friendly fuel for heating purposes. To demonstrate this, a field test was set up with a mix of 80% heating oil and 20% HVO. The objective was to monitor the technical performances of this low-carbon fuel in a standard heating installation of a dwelling.

Further information about HVO can be found under the following QR-Code:



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What?

To carry out the test Informazout set up a collaboration with Dejap, a local oil distributor importing HVO in Belgium, and Testo Belgium, a distributor of measuring instruments and systems, to check the technical performance of the boiler.

The test started in February 2020 and was carried out on a low temperature oil boiler (ACV) used for central heating and domestic hot water. The tank was filled with 2400 litres of the mixed standard heating oil and HVO. HVO is a drop-in fuel which means it can be mixed in any ratio with standard heating oil. The technicians did not modify any parameter of the boiler to be able to perfectly compare the performance of the mixed fuel with the standard heating oil in the heating installation.

Outcome

- The pilot plant operating on the mixture of heating oil and HVO is running without any problem. After the consumption of 2.400 liters of the mixture, not a single problem occurred. Gas flue measurements also indicated that the boiler performs perfectly in accordance with the local environmental legislation.
- The Belgian test proves that a mix of HVO and standard fuel is compatible with existing boilers and shows it is a promising solution to decarbonize heating with liquid fuels.

Belgium



The HVO refinery (The Netherlands) supplying the Belgian field tests



HVO is an excellent product which undergoes a quality test in laboratories



There is no major transformation to make to the heating appliance for it to run with HVO

Source: ©Neste