

HVO - YOUR FAST TRACK TICKET TO LOWER EMISSIONS

Benefits of Hydrotreated Vegetable Oil



Lower emissions

With HVO, you can signficantly reduce your emissions already today using your existing $\it mtu$ diesel engines. Take a look at our numbers: Up to 90% reduction for CO_2 , ~40% reduction for particle matter (~50-80% PM reduction in power generation applications) and ~8% reduction for NO_x . Exact emission values depend on the manufaturing process and feedstock of the HVO as well as the engine series and type.



No power loss

Our tests with HVO confirm that *mtu* engines perform equally as well when using HVO (as compared to fossil diesel) in terms of maximum power, load acceptance and fuel consumption. Get in contact with us to get more information about our released engine series and types.



Long shelf life

The pure HVO fuel is storable over long time periods without quality deterioration or water accumulation, making it even more attractive to emergency power system operators. The storage conditions and information on exact stoarge time should be obtained from the manufacturer.



Drop-in fuel

HVO is a drop-in fuel, which means that there are generally no adaptions needed to the diesel genset hardware and software (fuel can be blended with fossil diesel in all proportions or pure – 100% concentration). However, within the first 4 weeks after switching, we recommend to perform regular checks of the elastomeric seals for leaks.







Properties

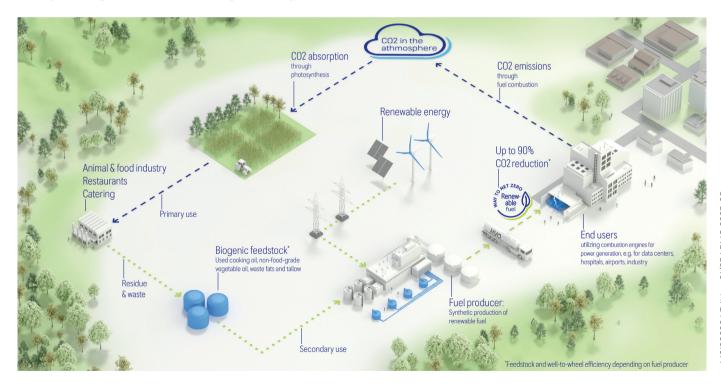
HVO is a clear and colourless liquid with a density slightly below that of diesel. Therefore, HVO exhibits a higher cetane number, when compared to the fossil counterpart and thus burns more efficiently, cleanly and with significantly reduced soot production.

Availability

The excellent ISCC-certified HVO product of our fuel supply partner Neste called "Neste MY Renewable Diesel" is available in Finland, the Baltic countries, Sweden, Denmark, Belgium, the Netherlands and the US.

Production

HVO as a fuel is obtained by processing organic materials such as vegetable oils, animal fats or cultivated food crops. In the production from plant materials, an almost closed carbon cycle is created. As a plant, the raw material absorbs CO_2 from the atmosphere and thus reduces the effect on the CO_2 balance through subsequent use in the combustion engine. Thanks to smart and long-term resource management, food security in the regions where the plants are grown is not jeopardized, nor is deforestation promoted.





Contact your local **mtu** service partner to learn more about our sustainable solutions. Find your service partner at www.mtu-solutions.com

Rolls-Royce Group www.mtu-solutions.com