

For our customers.
For our climate.
For our economy.

The green rail logistics solutions of choice: Introducing our HVO100 & HVO50 products

Climate and environmental protection are amongst the greatest challenges of our times. And it also applies to us in the transport and logistics sector: around a quarter of the greenhouse gas carbon dioxide in Europe is caused by transport. Unsustainable transport concepts endanger our prosperity. At the same time, however, logistics is a key driver of our economy. So we in trade and industry have a particular obligation to design transport concepts that are sustainable and environmentally friendly. The first step here involves using modes of transport sensibly and efficiently. We believe rail freight has a huge role to play in helping the UK Government to achieve its climate target of net zero green house gas emissions by 2050.

Did you know that rail is one of the safest and most eco-friendly means of transport? A freight train consumes as little as a third of the energy required by a truck and saves more than 80 % of the carbon dioxide emissions. This means that rail transport provides a basis for reducing CO2 by means of a modal shift. But this is still not ecofriendly enough for us.

We're pleased to launch our new HVO100 and HVO50 products. A rail logistics solution through powering our locomotives with a 100% renewable Hydrotreated Vegetable Oil fuel.



2



What is **Hydrotreated Vegetable Oil** and its benefits to powering locomotives?

HVO or Hydrotreated Vegetable Oil is a FAME-free and fossil-free environmentally-friendly alternative to mineral diesel. It is synthetically made through the hydrotreatment of either vegetable oils or animal fats and is manufactured from 100 per cent renewable raw materials. Crops which are used to produce HVO fuel bypass damage to the environment, the natural ecosystem and the drive for global deforestation. It is fully biodegradable and its delivery mileage can be carbon offset. It is a 'drop-in' replacement for standard ULSD fuel and meets EN 15940:2016 specifications.



Our products:

HV0100

Our HVO100 product allows the locomotive operating on your rail logistics service to be powered 100% by HVO fuel only. The benefits of switching to a 'HVO100' product can be summarised as follows:

- Reduces net Green House Gas (GHG) carbon dioxide emissions by up to 90%
- Reduces particulate matter emissions by up to 30 per cent
- Reduces hydrocarbon emissions by up to 30 per cent
- Reduces Carbon Monoxide emissions by up to 25 per cent
- Reduces Nitrogen Oxide emissions by up to 10 per cent
- Is fully biodegradable, renewable and sustainable
- Manufactured from 100% renewable & sustainable waste derived raw materials
- Will allow us to collectively reduce our carbon footprint and actively contribute to UK Government's net zero target for greenhouse gas emissions by 2050.

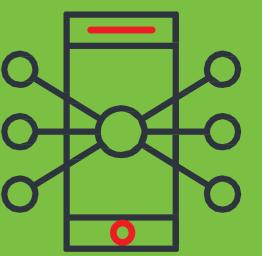
HV050

Our HVO50 product fuels our locomotives with a blend of HVO with standard ULSD. A 50 per cent HVO / ULSD blend. Using our HVO50 product would eliminate up to 45 per cent of carbon dioxide emissions.

Want to find out more?

It would be great to have a chat about the benefits and further details of opting for one of our HVO products to power your rail logistics services.

Please contact your Account Manager directly or email us at uk.dbcargo@deutschebahn.com.



4