Cleanaway Renewable Diesel Service

HVO100 renewable diesel is TODAY's solution for reducing carbon impact

Circular solution made from **used cooking oil** collected from hospitality businesses

Same performance uptime and payload as conventional fossil fuel

Suitable for **all diesel engines**, no need to retrofit

91%* reduction of GHG emissions compared to fossil diesel

Reduce your scope 3 emissions instead of offsetting with carbon credits

Service available from Cleanaway today (no waiting for new infrastructure)

**Life cycle emissions have been calculated specifically for Cleanaway and this demonstration project (See Life Cycle Emissions Assessment overleaf).*

How we do it

Blueprint 2030
Bp 6 -Innovation
Bp 7 - High-circularity, low-carbon

Our Fats to Fuel strategy is part of our Blueprint 2030 commitment to low carbon, high circularity customer solutions.

91% reduction of life cycle GHG emissions

FROM FRYER TO FUEL

Converting used cooking oil (UCO) into renewable diesel

Renewable diesel is deployed in Cleanaway trucks

Cleanaway collects UCO from the food serve sector including cafes, restaurants and pubs

NESTE

Renewable fuel manufacturers turn the feedstock into renewable diesel

UCO is processed and converted into feedstock for renewable fuel manufacturers

CLEANAWAY
Making a sustainable future possible together

Reducing reportable scope 3 emissions

Fuel combustion for transport is a major scope 3 contributor for Cleanaway customers. Reducing reportable carbon emissions through burning renewable fuel is preferred to offsetting carbon emissions and can reduce the cost of purchasing ACCUs or other carbon offsets.

NGERs is Australia's National Greenhouse and Energy Reporting Scheme. HVO100 is approved as a NGERs reportable emissions reduction solution. Cleanaway can support customers with reporting to include HVO100 in their public disclosures as an action taken to reduce scope 3 transport emissions.

Waste transport reporting

In your regular contract reporting, Cleanaway will provide visibility of HVO100 powered vehicles and emissions savings, using emissions factors from NGERs determination 2008.

1. Based on Australian Bureau of Statistics: Survey of Motor Vehicle Use, Australia, 12 months ended 30 June 2020 - Rigid Vehicles (All Years).

2. There are very small residual methane and nitrous oxide emissions when HVO100 is combusted. However, these are omitted here due to their immaterial contributions.

Service	Distance travelled (km)	Diesel usage (L/100km)[1]	Diesel use per trip (L)	Emissions from fuel usage (kg CO_2-e)
General waste route 1	18.2	28.6	5.21	14
General waste route 2	85.80	28.6	24.54	66
HVO100 service 1	18.2	28.6	5.21	0[2]
HVO100 service 2	85.80	28.6	24.54	0[2]

Life Cycle Emissions Assessment

The total life cycle emissions for the HVO100 renewable diesel we're using in this demonstration, including collection of used cooking oil (UCO) feedstock, transportation, conversion from UCO to Neste MY Renewable Diesel, and its combustion, is 7.46 g CO_2eq/MJ.

This is approximately a 91% savings vs. a total life cycle emissions of a landed fossil fuel diesel in Australia which has an estimated emissions of approximately 84.17 g CO_2e/MJ. The life cycle emissions for the conventional fossil fuel diesel includes emissions from extraction, transportation, distribution, and combustion.

How does Cleanaway calculate the life cycle emissions of Neste MY Renewable Diesel and conventional fossil fuel diesel?

To calculate emissions we use the following sources:

- The EU Renewable Energy Directive (RED II) (**Renewable Energy – Recast to 2030 (RED II)** - European Commission), for emissions associated with the transportation, distribution, and production of Neste MY Renewable Diesel;
- ECOINVENT **(About ecoinvent – ecoinvent)** for emissions associated with extraction, transportation, and distribution of conventional fossil fuel diesel; and
- Australian National Greenhouse Accounts Factors (2023) for emissions associated with the combustion of Renewable Diesel (Neste MY Renewable Diesel) and conventional fossil fuel diesel.

Speak to your account manager for more information about Cleanaway's HVO100 renewable diesel service or visit **cleanaway.com.au/renewable-fuel**

CLEANAWAY
Making a sustainable future possible together