

A scenic view of a canal with narrowboats and lush greenery. The water is calm, reflecting the surrounding trees and the sky. On the left, a narrowboat with a red cover is visible. The right bank is lined with tall grass and trees. The sky is blue with some clouds.

# Let's Talk About HVO

Presentation to the Inland Waterways  
Association AGM  
September 27<sup>th</sup> 2025

Presentation to the IWA AGM  
September 27<sup>th</sup> 2025



# LET'S TALK ABOUT HVO



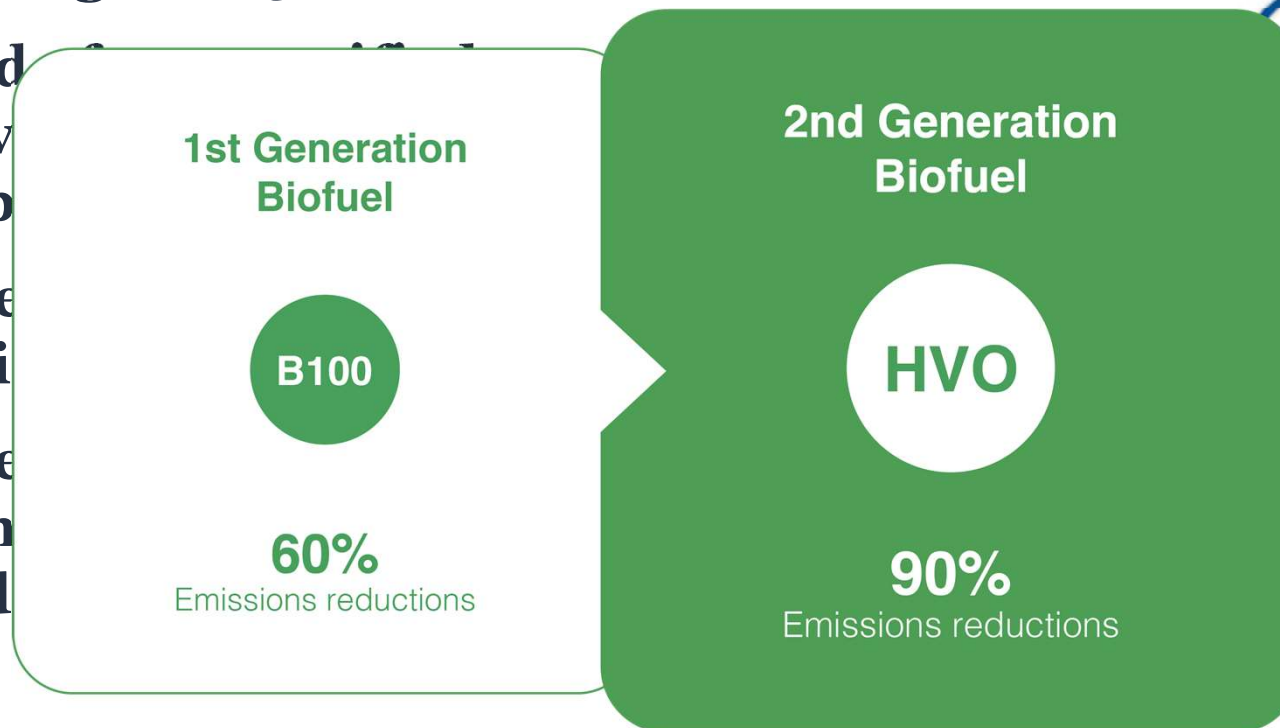
***Bowman Bradley CEng FIMechE***  
***On behalf of the IWA Sustainable Boating Group***



# WHAT IS HVO?

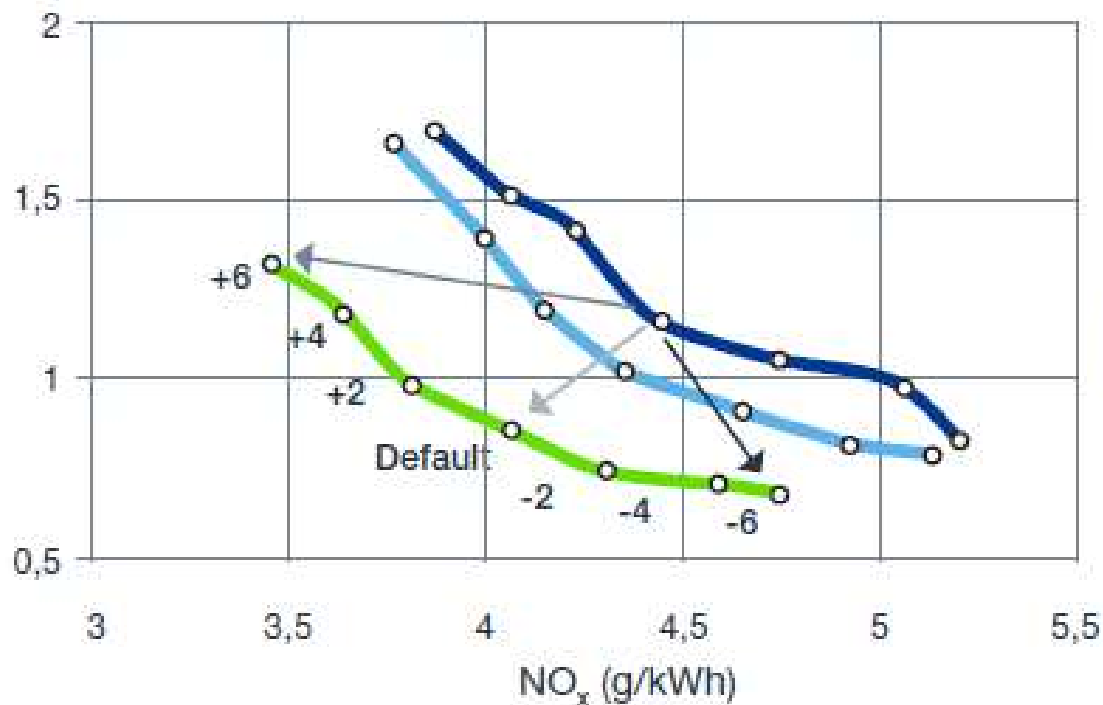
## (HYDROTREATED VEGETABLE OIL)

- A 'second generation' biofuel produced from vegetable oils reacted with hydrogen at 300° C
- Made by the Government
- Offered by the Government
- Offered by the Government



# WHAT IS HVO? (HYDROTREATED VEGETABLE OIL)

Particulates  
(smoke-FSN)



Injection timing (crank °)  
+ retarded  
- advanced



## WHAT IS HVO **NOT**?

- It is **not** the biodiesel we are all currently buying at 7% in mineral diesel for our cars and boats.
- That is 'FAME' (Fatty Acid Methyl Ester) biodiesel, made from the same raw materials but by a different process
- 'FAME' production uses methanol and produces glycerol as a by product



## WHAT HVO IS NOT?

- **‘FAME’ biodiesel, a ‘first generation’ product, suffers, particularly in a marine environment from:**
  - **Being more hygroscopic than mineral diesel**
  - **Deterioration in storage**
  - **‘Saponification’ of residual glycerol, blocking filters, pumps and injectors**
- **B7 diesel is currently giving ‘sticky fuel’ problems in marine engines**



# HVO



- **Suffers from none of the problems that afflict 'FAME' biodiesel**
- **Is much more biodegradable than mineral diesel**
- **Is not hygroscopic**
- **Does not suffer from 'diesel bug'**



**Fast.  
Reliable.  
Sustainable.**



# HVO



- **Does not deteriorate in storage**
- **Can be mixed with mineral diesel in any concentration**
- **Requires no adjustments to any equipment, in the boat or ashore**



**Fast.  
Reliable.  
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# CAN YOU USE HVO?

- All 'modern' canal boat engines are certified by their 'base' manufacturers as suitable to run on HVO without modification

- The IWA has conducted successful trials in 'traditional' canal boat engines, heaters and cookers.

- HVO performs as well, and in some cases runs better and cleaner than mineral diesel

**YES**



## WHY ARE WE NOT USING HVO?

- Boaters are suspicious of it through lack of knowledge
- It is not generally available at the bankside to leisure boaters
- It is more expensive than mineral diesel, in spite of 'benefiting' from a subsidy scheme (RTFC's)
- Regulatory complexities make it very difficult for suppliers to service our small retail market



**Therefore, boaters do not buy it, retailers do not stock it, and suppliers are reluctant to supply it to the leisure boating market**

## THE HVO JOINT WORKING GROUP

- A co-operation between the IWA, the RYA, British Marine and the Cruising Association

- Objectives:

*“To use our combined resources to attempt to influence government policy so that HVO becomes available to Recreational Boaters at an acceptable price”*

- We are currently trying to generate a demand for HVO from ‘ordinary’ boaters

**It will not be possible to decarbonise the existing fleet until HVO is available at the bankside at a price boaters are prepared to pay**





# THE HVO JOINT WORKING GROUP



➤ Visit our HVO Website:

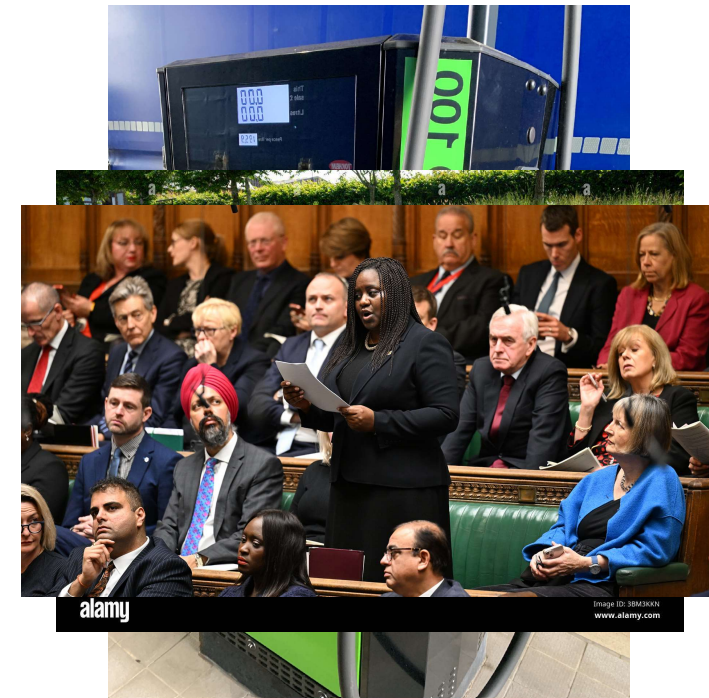


<https://waterways.org.uk/waterways/sites/hvo-overview>

# WHAT CAN YOU DO?



- Use HVO whenever you can get it
- Inform your fuel supplier (marina, boatyard, hire base) that you would buy HVO if they stocked it
- Lobby or write to your MP asking them to pressurise the Government to adopt policies that will make HVO available and affordable to leisure boaters



# THE INLAND WATERWAYS ASSOCIATION

Founded in 1946



To Preserve the Inland Waterways

And Still Doing It!

Visit our HVO Website:



The IWA Sustainable Boating Group





# HVO AND CONTAMINATION



- **HVO is a very clean fuel without FAME and is very unlikely to suffer from diesel bug**
- **There is no need to add any further treatments**
- **Any required additives will have been added by fuel manufacturer to meet specification requirements**



**Fast.  
Reliable.  
Sustainable.**

# HVO AND CONTAMINATION



- Overtreatment with some emulsifying diesel bug additives can lead to additive drop out which appears as glutinous globules
- In the very unlikely event of diesel bug then a biocide additive should be used
- Keeping water out of the fuel and removing water from lowest point of the fuel tank is the most effective way of preventing most fuel problems



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