

THE INLAND WATERWAYS ASSOCIATION RESPONSE TO HM TREASURY / DEFRA CALL FOR EVIDENCE ON NON-ROAD MOBILE MACHINERY (NRMM) AND RED DIESEL

INTRODUCTION

In the Spring Budget 2018 government called for evidence on the use of marked ('red') diesel in Non-road mobile machinery (NRMM) in order to improve its understanding of how it is used. The categories of NRMM eligible to use red diesel includes maritime and inland waterway vessel operators. Private pleasure craft can use red diesel but suppliers must retain and repay to Her Majesty's Revenue and Customs (HMRC) the proportion of the rebate that relates to motive power rather than to generate electricity for use on board.

This call follows on from the 2017 call for evidence on the use of red diesel. IWA's response to that call for evidence is available on IWA's website:

www.waterways.org.uk/news_campaigns/campaigns/consultation_responses/pdfs/use_of_red_diesel

The Inland Waterways Association is the membership charity that works to protect and restore the country's 6,500 miles of canals and rivers. IWA is a national organisation with a network of volunteers and branches who deploy their expertise and knowledge to work constructively with navigation authorities, government and other organisations. The Association also provides practical and technical support to restoration projects through its Restoration Hub.

CONSULTATION RESPONSE

IWA is responding to this consultation as a campaigning charity with interests in the long term use and development of inland waterways and offers responses to the following questions contained in the consultation:

DO YOU THINK THE CURRENT LIST OF "EXCEPTED VEHICLES" LISTED IN ANNEX A IS CLEAR ENOUGH?

The list in Annex A includes maritime and inland waterway vessel operators, ie commercial operators, whilst private pleasure craft are included in the list of common usage of red diesel. Private pleasure craft are able to use red diesel through the 2008 agreement made with Her Majesty's Revenue and Customs (HMRC) whereby boaters can purchase red diesel for propulsion whilst paying the required standard rate of tax, with a form of self-declaration allowing a proportion of the diesel used for heating and lighting to be purchased at a lower rate of tax. This system, which has now been in place for 10 years, is established, known to the supply chain and works well. Investment to provide an adequate supply is in place and maintained, and IWA and its members consider these arrangements remain appropriate and pragmatic for the present day waterways usage.

DO YOU HAVE AN OPINION OR ANY DATA ON THE ENVIRONMENTAL IMPACT OF RED DIESEL USE, PARTICULARLY IN URBAN AREAS WHERE USE IS MORE CONCENTRATED?

Emissions from inland waterways boats are relatively small but still significant, particularly at a local level in residential areas, and will become a greater proportion as pollution from roads is reduced. Contributory sources of emissions in addition to the use of red diesel in boat engines includes wood-burning and solid fuel stoves.

So far as the use of red diesel across the inland waterways of the United Kingdom is concerned, it is impossible to differentiate between the impact in rural versus urban areas because most boats will travel between the two on a daily basis. The navigable inland waterway system consists of a network of 2700 miles of connected waterways, as well as 2000 miles of unconnected canals and rivers. By their very nature the inland waterways have both urban and rural areas, as most cities grew on the banks of natural rivers, and canals were built to connect cities during the industrial revolution.

AVAILABLE OPTIONS FOR REDUCING EMISSIONS FROM NRMM AND THEIR COST – EFFECTIVENESS

Typically boats used on inland waterways have diesel engines, which is clearly less than ideal from the pollution perspective. Newer designs of diesel engines have reduced fuel consumption and air pollution, though this has been offset in part by a small increase in the number of boats. Advances are not always without problems. For instance biodiesel ('FAME') is now permitted to make up 7% of diesel fuel sold. In principle this should reduce emissions, but in practice FAME is known to cause problems in marine engines by attracting moisture and increasing the risk of contamination and diesel bug – hence the popularity of FAME-free diesel.

Alternatives to diesel are difficult at present. Petrol and LPG have safety issues and are much less widely available. There has been some limited work on 'hybrid' systems, using a diesel engine to generate power for both an electric propulsion motor and domestic power. Fully electric battery-powered boats are used by a small number of early-adopter private owners and hire boat operators, and the installation of charging points is being encouraged, but a very significant investment would be needed to build a comprehensive infrastructure. There are a few examples of more radical alternative fuels such as hydrogen, which is converted to electricity in a fuel cell to power an electric motor with water as the only emission. For the moment though the best approach for boat owners is to ensure that diesel engines are maintained thoroughly, to reduce emissions as much as possible. Electricity Generation Diesel engines and stand-alone generators are often run while boats are moored, to recharge batteries and to power larger domestic appliances such as washing machines or microwaves. More boat owners are moving away from solid fuel stoves and are instead installing diesel stoves running on red diesel for central heating and domestic hot water.

The need for running of engines or generators can be reduced by installing solar panels and by taking advantage of electricity bollards where available. These are commonly found in marinas and are beginning to be made available by the side of canals.

There are some examples of hire companies offering battery powered boats, such as those operated by Castle Narrowboats on the Monmouthshire and Brecon Canal. The infrastructure provided requires 6 dedicated charging points and moorings over 33 miles of canal, which if scaled up to cover the 4700 miles of navigable canals and rivers would require very significant investment.

DO YOU HAVE VIEWS ON THE NEED FOR FURTHER INTERVENTION TO REDUCE EMISSIONS FROM THE SECTOR, AND WHAT INTERVENTIONS MIGHT BE EFFECTIVE?

The most realistic intervention to reduce emissions from inland waterway craft would be for the widescale provision of 16 amp electrical charging points. Addressing this would require a significant investment and Government could choose to support or incentivise such provision in order to reduce the level of pollution.

Whilst many current marina/mooring operators provide electrical points, the supply is usually insufficient to provide 16 amps to all the points at once, and so even here further investment is required.

More provision of electric points, using existing technology such as debit cards or similar pay-as-you-go systems, would enable boaters to use waterside power supplies and minimise their own motive power generation. This would reduce the unnecessary inefficiencies of using boat engines or generators for domestic appliances. We would welcome direct investment in this or equivalent environmental subsidies.

This could focus on urban areas specifically to reduce air pollution, or areas on the wider inland waterways network in general.

As vehicle technology develops, it may become feasible to provide vessels with cost effective replacement power units which are diesel hybrids, or entirely battery powered electric motors. With waterside connections, and improved battery technology, it may then be possible to reduce or eliminate the currently ubiquitous diesel engine for some applications. For many inland waterways craft, weight is also less of a problem than in vehicles. However, significant investment would be needed to get facilities spread widely enough to make long inland waterway journeys and holidays in remote parts of the network viable.