

Britain's Great Little Railways

Special Edition



February 2018

COAL

In the minutes of the last meeting Iain Dinnes brought the members up to date on an unlikely happening in Ireland

Coal as a Banned Substance

Ireland has banned the use of coal and now realise that this effects the Heritage Steam and other steam railways. They are trying to get the necessary derogation to cover these applications built in to the regulation.

This does not apply to the UK and the HRA is lobbying to ensure that any banning of coal in the UK does not include steam railways. This is considered unlikely in the medium term as there are still a handful of coal powered power stations still generating electricity in the UK.

I am sorry to report that the medium term has become short term as DEFRA have issued a Call for Evidence - Domestic Burning of House Coal, Smokeless Coal, Manufactured Solid Fuel and Wet Wood.

I have spoken at some length with Ian Moulson who works for Hargreaves that supplies, either directly or indirectly 90% of the coal that is consumed by the Heritage Railways and miniature railways, The usage is 60% bituminous coal and 40% Welsh Dry Steam Coal.

His estimate of domestic coal consumption in the UK is Bituminous 160k Tons, Anthracite 600k Tons and Wood burning 4M Tons. He believes that the likely outcome of the DEFRA activity is that bituminous coal will be banned. He is well aware that the HRA, led by Bill Hillier and other railway companies including the owners of Tornado are attempting to obtain a derogation for steam trains if such legislation was enacted.

My concern is that even with a derogation achieved the supply of bituminous coal could either dry up or become very expensive. The availability of anthracite and man-made brickettes would obviously continue as these represent a cleaner type of solid fuel and are unlikely to be banned but can produce operational problems.

The reason for this special edition is that the Call for Evidence, opened on January 30th and closes on 27th February which is before our next meeting and therefore should you wish to reply or contact the HRA about their reply then you need to act quickly.

I have copied below the information on the DEFRA website and all the links to further reading etc work by using Control+Click to get you to the specific document. Bill Hillier of the HRA can be contacted at bill.hillier@hra.uk.com or you could use our HRA contact Iain Dinnes iain@ehmr.org.uk

I will make sure that this subject is on the agenda of the Spring General Meeting

Call for Evidence - Domestic Burning of House Coal, Smokeless Coal, Manufactured Solid Fuel and Wet Wood

Closes 27 Feb 2018

Opened 30 Jan 2018

Contact 03459 33 55 77

Air.quality@defra.gsi.gov.uk

Overview

Defra is seeking information on the use of solid fuels such as house coal, manufactured solid fuel and wood for domestic heating, and the impact that changes to the availability of these fuels would have on consumers and businesses.

The Government's long term strategy is to see households move away from these polluting fuels towards cleaner technologies. This call for evidence is a series of questions which will help Government consider what steps should be taken as we transition towards this long term goal. It will help us understand the costs, impacts and benefits associated with any changes.

Your responses will be used to feed into the Government's Clean Air Strategy which will be published for consultation in 2018.

This survey is open to all who have an interest in the topic.

You will find the questions divided into the following headings:

- Section 1 – Introduction: about you
- Section 2 – House Coal, Smokeless Coal and Manufactured Solid Fuels - for retailers/consumers/users
- Section 3 – Wood fuels - for retailers/consumers/users
- Section 4 – House Coal, Smokeless Coal and Manufactured Solid Fuels - for suppliers - businesses
- Section 5 – Wood fuels - for suppliers - businesses
- Section 6 – Local Powers to tackle air pollution from smoke
- Section 7 – General - evidence
- Section 8 – General comments

Why We Are Consulting

Many everyday activities essential for supporting lives and livelihoods can cause air pollution. The air quality impacts of driving are widely discussed and understood¹, but vehicles are not the only source of air pollution. Generating power, heating homes, industry and agriculture can all contribute, as they generate air pollutants such as particulate matter, nitrogen dioxide and sulphur dioxide.

Domestic burning of house coal, smokeless solid fuels and wood is the single largest source of harmful particulate matter emissions in the UK, at around 40%² of the total in 2015. This compares with industrial combustion (17%) and road transport (13%). The tiny particles in smoke can enter the bloodstream and attach to internal organs risking long term health issues as well as having more immediate impacts on some people such as breathing problems or asthma attacks.

Burning the following domestic solid fuels leads to emissions of PM_{2.5}. The main solid fuels burned in the home are:

- House coal (or bituminous coal) – a naturally occurring mined product. PM_{2.5} emissions are higher than for smokeless fuels.
- Smokeless coal (or anthracite) - a form of naturally occurring, mined, high-purity coal, authorised for use in smoke control areas
- Manufactured solid fuels – fuels manufactured from coal products with other ingredients that have low smoke emissions, however some do have high SO₂ emissions.
- Wet wood – a naturally occurring product. Newly felled wood has a high moisture content and creates a lot of smoke when burned, it has over double the emissions of seasoned or kiln dried wood.
- Seasoned wood – wood that has been left for up to 2 years to naturally air dry.
- Kiln dried wood – wood that has been kiln dried to below 20% moisture.

We are considering how to encourage consumers to shift from burning the more polluting fuels such as house coal and wet wood, towards less polluting fuels such as low sulphur smokeless fuels and dry wood. This can deliver both health and economic benefits for individuals, as well as providing a more pleasant experience for consumers.

We are not considering banning domestic burning. The Government recognises that many households have installed wood-burning stoves, and the Government is not seeking to prevent their use or installation. But we are keen to encourage consumers to switch to cleaner wood burning, this will directly benefit consumers in their homes, as well as improving the local environment.

We are therefore considering a range of options to help reduce particulate matter emissions and improve air quality. These options include:

- Consumers who burn house coal switching to alternative fuels (e.g. low sulphur smokeless fuels).
- Consumers switching from wet wood to dry wood.
- Introduction of sulphur limits for all smokeless solid fuels.
- Provision of powers for local authorities to take action for persistent smoke offences, where local amenity is harmed.

The purpose of this Call for Evidence is to gather more information and data on the use of house coal, smokeless coal, manufactured solid fuel and wood for domestic heating as we seek to help householders make informed choices when using these fuels to heat their homes efficiently and reduce air pollution.

Forthcoming evidence will feed into the government's Clean Air Strategy, which will be published for consultation in 2018. This will set out how we will work towards our international commitments and continue to deliver air quality improvements in the UK.

Domestic burning

The restoration of open fires and installations of wood-burning stoves have risen in popularity over recent years. They are now an additional form of heating for many households; for a minority they may be the sole heat source.

Burning wood has aesthetic appeal to many. By shifting to cleaner fuels and appliances, people can protect their own health, and that of their families, neighbours and communities by creating fewer particulate emissions.

For example when wet wood is burned, the heat output is significantly reduced and the chemicals from the partially combusted wood build up on the inside of the stove and chimney, which increases the risk of chimney fires. High sulphur solid fuels burn at very high temperatures and can damage appliances and chimneys.

Impacts of residential emissions are generally most significant in built up areas, when combining with a range of other emissions sources. However, particulate matter emissions from solid fuel burning can be significant in rural areas too.

Emissions from domestic burning are not a new problem; the smogs³ of the 1950s primarily related to the emissions from burning coal in UK cities from industrial and domestic premises, led to the development of the Clean Air Act and the establishing of Smoke Control Areas across the country. In Smoke Control Areas it is illegal to sell or use (burn) unauthorised fuels except if they are to be used in an exempt appliance. While domestic burning and other emissions have reduced significantly since the 1950s, the evidence on the adverse health impacts from air pollution has also grown during that time, showing that even at today's lower levels significant harm can be caused. Since 2005, we have seen an increase in the emissions from the domestic sector. We believe this is largely down to an increase in the popularity of open fires and wood-burning stoves. The purpose of this call for evidence is to raise awareness of this trend and consider the effects of possible government interventions to encourage a switch to cleaner fuels. This call for evidence is designed to improve the data available to the Government.

Through this call for evidence, we are interested in exploring how many households are burning solid fuels as either their main fuel or as a secondary fuel, the implications of any changes, and what support may be required to encourage these households to switch fuel type, in line with the Governments' policies.

Existing controls – smoke control areas

Smoke control areas are specific areas, designated by local councils, where it is illegal to allow smoke emissions from the chimney of your building. In these areas you can only burn authorised fuels or use an appliance which has been exempted for use in the area.

Anecdotal evidence would suggest that awareness of, and compliance with, smoke control area legislation in these areas is low and that many perceive the problem of domestic burning to no longer be an issue with regards to pollution.

We are interested to know if the provision of additional powers, for example to issue fixed penalty notices for persistent smoke offences, would assist local councils in increasing compliance with legislation.

Smokeless solid fuels

In addition to house coal, smokeless coal and wood there are a number of manufactured solid fuels which are marketed as 'smokeless solid fuels'. These are manufactured using a mixture of pulverised coal, other ingredients such as waste biomass and binding agents which are re-formed into briquettes. The Clean Air Act 1993 regulates the sulphur content of smokeless solid fuels which can be used in smoke control areas to 2% sulphur. However there are a number of smokeless solid fuels which are marketed for sale outside smoke control areas and where the sulphur content can be significantly higher. High sulphur content fuels are harmful to human health and the environment. In addition they can also cause damage to stoves and chimneys.

There is no requirement to label products with their sulphur content therefore consumers would find it difficult to identify these when purchasing fuel, due to inadequate information at the point of sale and lack of knowledge of the harm caused. They may therefore purchase these in good faith.

As government already regulates the sulphur content of all liquid fuels, we are minded to review and extend the sulphur content limit to all smokeless solid fuels to ensure that consumers don't switch from house coal to a more polluting high sulphur manufactured smokeless fuel. We are seeking views on whether there should be legislation which sets specific limits, and if so what these should be.

Anthracite is a naturally occurring, mined, high-purity form of coal, and is approved for use in smoke control areas because of low emissions of particulate matter. We are not currently seeking further evidence on the use of anthracite.

What action has already been taken?

As a first step we have been raising consumer awareness of the issue and developing quality standards for fuel; we are working with industry to launch a new industry-led [Ready to Burn](#) standard for dry wood because wet wood can have over twice the emissions of dry seasoned wood.

We have also developed [guidance](#) to help inform consumers of what they can do to reduce their impact when burning solid fuels at home such as burning less often, switching to cleaner fuels or moving to a cleaner burning/more efficient appliance. We are working with Local Authorities to ensure this message is available for householders at a local level.

We have worked with chimney sweep organisations to provide advice to consumers in their own homes. They have developed an [informative guide](#) which provides clear advice on the procedures to follow when lighting a stove to minimise smoke emissions.

We welcome proactive initiatives already taken by industry such as the [Ecodesign-ready brand](#) launched earlier this year which enables consumers to identify which stoves are tested to the emissions standards of the Ecodesign Directive due to be introduced in 2022. There are now over 300 Ecodesign ready stoves available and retailers are working hard to promote awareness of the benefits.

However more needs to be done if emissions from domestic burning are to be reduced.

Timing and duration of the call for evidence

The call for evidence will be published for a period of four weeks from the publication date at: <https://consult.defra.gov.uk/airquality/domestic-burning-of-wood-and-coal>

You can respond using the online survey at the above link. If you would prefer not to respond online, you can respond:

by email: Air.Quality@defra.gsi.gov.uk

or by writing to:

Local Air Quality Team

Department for Environment, Food and Rural Affairs

Area 2C, Nobel House

17 Smith Square

LONDON SW1P 3JR

Your response will be most useful if it is framed in direct response to the questions posed, though further comments and evidence are also welcome.

[1] [The UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations, July 2017](#)

[2] 40% is based upon the calculations in the National Atmospheric Emissions Inventory for 2015, which is the most recent year available. This data is uncertain given the difficulties in accurately estimating the extent and nature of domestic burning, however it is the best available evidence and is informed by a wide range of data sources, including data from BEIS and the stove and wood fuel industries. Of the 40% approximately 35% is domestic wood. <http://naei.beis.gov.uk/data/>

[3] Smog is a type of air pollutant, originally named for the mixture of smoke, gases and chemicals with fog in the air found especially in cities, that makes the atmosphere difficult to breathe and harmful for health

Give Us Your Views

[Online Survey](#)

Related

- [Consumer Guidance](#) 221.6 kB (PDF document)
- [Call for Evidence - Domestic Burning of House Coal, Smokeless Coal, Manufactured Solid Fuel and Wet Wood](#) 319.9 kB (PDF document)
- [Call for Evidence - Background Documentation](#) 571.6 kB (PDF document)

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