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Llywodraeth Cymru
Welsh Government

Welsh Government Consultation Document

Reducing emissions from domestic burning of solid fuels

Proposals to ensure only the cleanest forms
of solid fuels and appliances are used in Wales

Date of issue: 13 January 2021
Action required: Responses by 7 April 2021

Mae'r ddogfen yma hefyd ar gael yn Gymraeg.
This document is also available in Welsh.

Overview	This twelve week consultation seeks views on the Welsh Government's proposals on regulating domestic burning as part of the Clean Air Plan for Wales: Healthy Air, Healthy Wales. Proposed actions in this document will reduce air pollution and support improvements in public health and our natural environment.
How to respond	You can respond to this consultation by answering the questions on the form available at www.gov.wales/consultations .
Further information and related documents	<p>Large print, Braille and alternative language versions of this document are available on request.</p> <p>Mae'r ddogfen yma hefyd ar gael yn Gymraeg / This document is also available in Welsh</p> <p>Insert any references to the internet, documents or information which might be useful to consultees e.g. consultation web address, detailed appendix to consultation</p>
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In order to show that the consultation was carried out properly, the Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. If you do not want your name or address published, please tell us this in writing when you send your response. We will then redact them before publishing.

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Foreword

Our Clean Air Plan for Wales: Healthy Air, Healthy Wales was published in August 2020. It set out our commitment and long-term ambition to improve air quality and the steps we will take to deliver this.

This consultation gives more detail about the proposals set out in the Clean Air Plan regarding measures to reduce emissions from domestic burning of solid fuels.

I recognise households have chosen to install wood-burning stoves and I am not seeking to prevent their use or installation. However, at present many consumers are unaware of the impact burning solid fuels can have on the quality of the air around them, the affect it has on their health and wider concerns over climate change. We are therefore focussing on action to ensure people switch to cleaner burning and appliances, whilst protecting them from fuel poverty. This will directly benefit consumers in their homes and improve our local environment.

Proposals in this consultation will also support delivery of our climate change targets. They will form part of collective action needed under our next Low Carbon Delivery Plan. This is due to be published in November 2021. Our commitment to achieving Net Zero greenhouse gas emissions by 2050 will require all of us to adjust how we live our lives. How we heat our homes also represents a significant contribution to achieving that objective. This document demonstrates we need to be mindful of the future when considering how best to mitigate the effects of any actions we take today.

I believe education for consumers is essential. This document highlights and seeks views on how we intend to raise awareness of the health issues associated with domestic burning. I want people to move away from burning solid fuels in any form to protect air quality and lower carbon emissions. Where this is not possible, I would encourage use of the least polluting fuel in the most efficient appliance.

We must all work together to reduce the impact of domestic burning on air quality to protect our local environment and the health of our families and communities. I look forward to receiving your views on this consultation.

Introduction

This consultation focusses on proposals set out in Clean Air Plan for Wales: Healthy Air, Healthy Wales¹ regarding emission from the domestic use of solid fuel. It outlines further steps which can be taken to encourage households to make a change to cleaner fuels and appliances.

Air pollution is the largest environmental threat to health². Cleaner air will ensure improved health and well-being for current and future generations. We are committed to prioritising and sustaining action to address the impact of poor air quality on human health (especially vulnerable and susceptible population groups) and ecosystems by reducing exposure to pollution more widely. Proposals in this consultation will also support delivery of our climate change targets. They will form part of collective action needed under our next Low Carbon Delivery Plan. This is due to be published in November 2021.

The response to COVID-19 has caused a significant disruption to our way of life in Wales and across the world. The unprecedented changes in living and working patterns during the pandemic resulted in a varying picture for air pollution in Wales at this time and potentially for the future. For example, restrictions on travel changed road transport emissions. In addition, increased working from home and the effects of the furlough scheme have altered the locations where people are exposed to pollution.

Residential sector emissions have risen considerably since 2002 despite falling significantly in the preceding years because of declining coal use. Emissions are now said to be back at around the same levels as seen in 1990.

An increase in the installation and use of wood-burning or multi-fuel stoves, particularly in urban areas, has coincided with a rise in emissions of particulate matter (PM). The National Atmospheric Emissions Inventory (NAEI) attributes the rise, in part, to increased use of wood as a fuel for homes. There is significant uncertainty around the exact contribution, although the NAEI states that domestic burning of solid fuels is the largest single contributing source of the UK's levels of fine particulate matter (PM_{2.5}), producing as much as transport and industry combined³. A study for HETAS and the Stove Industry Alliance (SIA) identified issues with the methodology and measuring equipment used to arrive at the NAEI conclusions. It also recognised, however, without targeted action to address pollution from domestic burning, our NECD⁴ targets to reduce PM_{2.5} by 2030 are unlikely to be met⁵.

Both PM and the gases which form it can travel considerable distances, with impacts occurring far from the original source. Concentrations of PM are a particular concern because of established links with health impacts. Fine particulate matter (PM_{2.5}) can

¹ Clean Air Plan for Wales: Healthy Air, Healthy Wales -

<https://gov.wales/sites/default/files/publications/2020-08/clean-air-plan-for-wales-healthy-air-healthy-wales.pdf>

² Ten Threats to Global Health in 2019, WHO 2019. www.who.int/emergencies/ten-threats-to-global-health-in-2019

³ <https://naei.beis.gov.uk/>

⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016L2284&from=EN>

⁵ <https://www.hetas.co.uk/scientific-review-casts-doubt-on-impact-of-domestic-burning/a-review-of-the-impact-of-domestic-combustion-on-uk-air-quality-1/>

travel deep into the lungs and result in a range of illnesses, including respiratory and cardiovascular disease⁶. Whilst we have both European and domestic legal limits for PM_{2.5},⁷ no threshold has been identified below which no adverse health effects occur.

Domestic burning is also linked to emissions of Coarse Particulates (PM₁₀), Carbon Monoxide (CO), Sulphur Dioxide (SO₂), Volatile Organic Compounds (VOC), Benzo(a)Pyrene (BaP) and dioxins.

For a small number of homes, solid fuel is the primary and most cost effective source of heating. For the majority of stove users, these appliances complement existing forms of heating such as oil, gas and electricity. The Welsh Housing Conditions Survey 2017-18⁸ suggests the proportion of dwellings using solid fuel as their primary heating source has decreased from 3% in 2008 to 1% in 2017-18. However, in rural areas a higher proportion of households are estimated to rely on solid fuels (4%) compared to Wales as a whole. We must therefore be mindful to ensure any proposals brought forward address the needs of those in rural communities and settings, and particularly those experiencing fuel poverty who rely on solid fuels as a heat source through a significant portion of the year.

Policies on domestic burning, and the overall reduction of PM_{2.5} across Wales, are an integral part of our Clean Air Plan for Wales and are further emphasised by legal commitment to meet the UK's National Emissions Ceiling targets⁹. These policies need also to reflect the Government's commitment to Net Zero greenhouse gas emissions by 2050. How we heat our homes is integral to achieving this target. The burning of solid fuels is not considered to be compatible with this objective¹⁰.

[Clean Air Plan for Wales: Healthy Air, Healthy Wales](#)

The actions from the Clean Air Plan addressed in this consultation include the following in relation to domestic burning:

- We will consider whether outdoor solid fuel burning appliances and the fuels they use should be subject to regulation. We will develop necessary regulations during 2021.
- We will prohibit the sale of wet wood and traditional/bituminous house coal, subject to consultation. We aim to introduce the necessary legislation in 2021, with bans commencing during 2023.

⁶ <https://www.gov.uk/government/publications/comeap-cardiovascular-disease-and-air-pollution>

⁷ WHO limits (AQR Guidelines) are 10 micrograms (annual). UK levels are currently 10.37 micrograms.

⁸ <https://gov.wales/welsh-housing-conditions-survey>

⁹ Compliance with the national emission ceilings contributes to international progress in reducing transboundary air pollution with reciprocal benefits from emission reduction outside Wales, including the rest of the UK.

¹⁰ For further information please see the Climate Change Committee's 6th Carbon Budget Report: <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

- We will regulate to ensure only the most efficient appliances are available for purchase and installation by 2022. The regulation will include installation of second-hand appliances.
- We will work with industry and other governments to establish test standards for new manufactured solid fuels entering the market by 2024 to ensure they are compliant with appropriate regulations on smoke and sulphur emissions.
- We will investigate options to support households to ensure no-one slips into or remains in fuel poverty as a result of any prohibition on fuels or appliances, or an extension to the use of SCAs. We aim to have a scheme in place by 2022.
- We will regulate to require annual maintenance of domestic burning appliances by a certified professional, subject to review. This review will be undertaken by 2023.

Communications and behaviour change

Gaining a collective understanding of current practices in relation to domestic burning of solid fuel is vital to reducing air pollution. This will also support improvement in our environment and the health and well-being of current and future generations. We will work with public and private bodies to proactively communicate the problems, progress and practical solutions associated with burning solid fuels such as house coal and wet wood. We are using a focused approach to our communications, which supports development and delivery of work through the following three streams. These are information provision, increasing awareness and promoting and supporting local initiatives.

We will use social media to promote key information and messages to increase awareness and support local initiatives. There will also be a range of behaviour change suggestions and up to date information regarding current action being taken to improve air quality. In addition to digital communications, we will develop physical materials which can be shared with businesses and communities throughout Wales.

What action is being taken elsewhere?

Because of the trans-boundary nature of air pollution, it is essential we take account of actions taken in neighbouring countries. For Wales our immediate neighbours are England and Ireland.

Following its own consultation on domestic burning, the Department for Energy, Farming and Rural Affairs (Defra) have taken the following actions in England:

- Sales of bagged traditional house coal and wet wood in units under 2m³ will be prohibited from May 2021;
- The sale of loose coal direct to customers via approved coal merchants will be phased out by May 2023, allowing the public to switch to cleaner alternatives; and
- There will also be limitations on the sale of manufactured solid fuels for domestic combustion from May 2021, with only those fuels with a low sulphur content and which emit a small amount of smoke being permitted for sale.

In Ireland it is estimated that in the region of 8,000 premature deaths¹¹ have been averted in Dublin since the introduction of a smoky coal ban in 1990. More recent analysis found the restrictions on bituminous coal led to a significant reduction in respiratory problems and premature deaths from the effects of burning smoky coal in the existing 'Low Smoke Zones'.

The ban now applies in twenty six cities and towns and air quality monitoring by the Environmental Protection Agency (EPA) has shown lower levels of PM₁₀ in these areas than in towns where the ban does not apply. An estimate of these benefits in monetary terms puts the value at over €20M.

Additional benefits of the regulations include many householders switching from solid fuels, which generally are less efficient and more polluting, to more efficient and less polluting gas or oil. The associated reduced fuel costs to consumers are estimated at €184M per year¹².

What do we want to do about domestic burning of solid fuels?

Air pollution emission and concentration levels are impacted by a number of factors:

- Using cleaner fuels;
- The efficiency of the appliance;
- The correct use of the appliance;
- Installation by a competent professional;
- Installation in an appropriate setting; and
- Regular maintenance by a competent professional.

Combining all these factors will make a significant difference in supporting air quality improvements.

In February 2019, we established a Task and Finish group of key stakeholders to inform our future direction on tackling emissions from domestic burning of solid fuels. This group has informed the development of this consultation. They have assisted us in considering the impacts, risks and potential benefits of different interventions, including prohibiting the sale of the most polluting solid fuels (on current evidence these are wet wood and traditional house coal), legislation to ensure only the most efficient appliances are available and regulation to ensure appliances are regularly maintained by a qualified professional.

We are concerned about the potential impacts of phasing out bituminous/traditional house coal and restricting sales of wet wood on both suppliers and consumers. Particularly those off-grid who do not have access to other forms of domestic heating fuel and/or are fuel poor. For these groups, bituminous/traditional coal may be the cheapest source of

¹¹ Mortality burden estimates are calculations that provide a useful indication of the scale of the air pollution problem in a given area at a certain point in time. They require careful interpretation as the equivalent range of deaths does not refer to 'actual' numbers of deaths. They reflect the sum of the small contributions that air pollution exposure makes to life-expectancy reductions amongst all individuals in a population. They take account of multi-pollutant impacts, and present the burden of attributable all-cause (non-accidental) deaths as an 'effect equivalent to' range, rather than a central estimate.

¹² <https://www.dccae.gov.ie/en-ie/environment/topics/air-quality/smoky-coal-ban/Pages/Background-to-the-ban.aspx>

heating. A recent Building Services Research and Information Association report¹³, commissioned by Defra, has challenged this view. Its findings indicated manufactured solid fuels are more cost effective when compared to bituminous/traditional house coal. It is therefore considered essential, as part of any measures to reduce emissions from domestic burning, any pre-conceptions should be addressed in the most effective way possible. We are engaging with coal merchants, and similarly wood suppliers in relation to the benefits of using properly seasoned and dry wood, in order to disseminate this message.

[White Paper on a Clean Air \(Wales\) Bill](#)

Alongside this consultation, we have also published a White Paper on a Clean Air (Wales) Bill which focusses on a proposal to amend the regime for Smoke Control to ease the enforcement burden on Local Authorities. We are seeking views later in this document on whether to mandate use of Smoke Control Orders in defined population areas and also on exploring the practicalities of legislating to include outdoor burning practices.

Within a Smoke Control Area (SCA), it is an offence to emit smoke from a chimney of a building (including domestic, residential or industrial premises) unless a fuel has been authorised for use or an appliance has been exempted for use in a SCA. Smoke control legislation is currently consolidated in the Clean Air Act 1993.

Part 3 of the Clean Air Act 1993 covers the law on Smoke Control Orders and their designation. Section 19 allows for the possibility of Welsh Ministers expanding Smoke Control areas by directing Local Authorities to expand them to their whole area. The Act aims to control emissions of dark smoke, grit, dust and fumes from a variety of sources, including industrial premises and furnaces.

Where a Local Authority declares a SCA, the emission of smoke from a chimney becomes an offence. However, prosecution is difficult as it is costly, time consuming and defences can be used (such as the use of an authorised fuel or exempted class of fireplace). With no power of entry for Local Authorities, enforcement becomes challenging.

Currently, Welsh Ministers have the power to make subordinate legislation to authorise the use of certain fuels in a Smoke Control Area (under section 20(6) of the Act) and to exempt certain appliances for use (under section 21(5)). Manufacturers submit their products for testing by technical advisers who subsequently recommend the products can be placed on the market.

[UK Environment Bill](#)

There is a Wales-only provision within the UK Environment Bill which places a duty on Welsh Ministers to publish lists for recording authorised fuels and exempted classes of fireplace. Once enacted, the Welsh Ministers' power to make subordinate legislation in

¹³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/867429/burning-wood-consult-bsria-report1.pdf

respect of authorised fuels and exempted classes of fireplace will be repealed. Adopting published lists will bring Wales into line with England and Scotland.

This change will benefit businesses as the margin for error when recording fuels and appliances will be reduced; there will be less delay between testing the product and putting it on the market; and consumers will benefit as more products will enter the market sooner thereby increasing choice.

Domestic solid fuels

Burning of solid fuels in any capacity produces emissions of PM_{2.5}. However, some fuels produce considerably more PM_{2.5} than others when burnt in exactly the same setting. The main solid fuels used in a domestic setting are:

- Bituminous/traditional house coal: A naturally occurring mined product with significantly higher PM_{2.5} emissions than its anthracite, smokeless, counterpart.
- Smokeless coal (or anthracite): A form of naturally occurring mined high-purity coal which produces significantly lower PM_{2.5} emissions than other forms of coal and as such are classified as being authorised for use in Smoke Control Areas. It does however also release higher levels of CO₂ into the air.
- Manufactured solid mineral fuels: These are “Manufactured smokeless fuels” as opposed to “Natural smokeless fuels” such as anthracites and dry steam coals.
- Manufactured solid fuels from 100% virgin timber: A manufactured product of firewood briquettes which burn with the same characteristics as virgin wood logs. These may produce very low smoke (and PM_{2.5}) emissions when burnt in appropriate appliances.
- Manufactured solid fuels from woody biomass manufactured into briquettes: A manufactured product tested as Authorised fuels to verify they produce very low smoke (and PM_{2.5}) emissions when burnt in appropriate exempt appliances
- Manufactured solid fuels from other biomass manufactured into briquettes: Commercially available ‘other’ fuels that have not been tested and should only be burnt in non-Smoke Control Areas.
- Wet wood: The term often given to firewood logs that have not been dried sufficiently for effective combustion. Wet wood may be freshly cut or partially seasoned and as such still has a higher moisture content which results in greater emissions when burnt. Severely wet wood will not burn until dried out when added to an established fire, during this period excess emissions will be released.
- Naturally seasoned wood: Wood that has been left to naturally air dry and should not be burnt until below 20% moisture content.

- Kiln dried wood: Wood that has been kiln dried so as to significantly speed up the drying process to below 20% moisture content.

We commissioned Wood PLC to develop a package of measures for reducing emissions of air pollutants using the Multi-Pollutant Measures Database (MPMD). Regulating the sale of wet wood and traditional coal, amongst others, were identified as measures which reduce emissions and in doing so deliver compliance with European obligations.

In respect of climate change commitments however, we must be mindful of the need to transition away from burning fuels and move to low carbon and sustainable means of heating our homes. The Climate Change Committee has estimated

“by 2030, low-carbon heat installations in homes could represent up to around 80% of sales. Of these low-carbon heat installations, 75% are heat pumps (including hydrogen hybrids), 19% are low-carbon heat networks, and 5% are other flexible electric heating with space heat storage or solar thermal.”¹⁴

Proposed action to tackle emissions from domestic burning of solid fuels

This consultation seeks views on proposals to:

- Phase out the sale of bituminous/traditional house coal for domestic burning;
- Prohibit the sale of wet wood for domestic delivery and /or use unless in quantities above a certain limit;
- Apply sulphur standards and smoke emission limits to all manufactured mineral solid fuels; and
- Apply standards to manufactured biomass solid fuels.

As referred to above, according to the most recent Welsh Housing Conditions Survey¹⁵, only 1% of homes in Wales use solid fuels as a main heating source. This includes bituminous/traditional house coal, smokeless fuel, anthracite nuts, wood and biomass. This has fallen by two thirds against the comparable 2008 survey¹⁶. It is recognised that the households reliant on solid fuel for heating are predominantly in rural areas where alternatives are not readily available. It is also the case that a higher proportion of households in rural Wales live in fuel poverty, being above the 12% for Wales as a whole. It is therefore crucial that any proposals also consider mitigation and measures to address this.

The proposals set out in this consultation provide measures to achieve a clear reduction in PM_{2.5} emissions from the burning of solid fuels. Additionally, we believe consumers will not be adversely affected because moving away from heavily polluting fuels and to low smoke fuels actually represents better efficiency and value for money. As part of the

¹⁴ <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf> page 111

¹⁵ <https://gov.wales/welsh-housing-conditions-survey>

¹⁶ <https://gov.wales/living-wales-survey-2008>

wider Clean Air Plan for Wales we will be engaging in activities to make people aware of these benefits.

Phasing out the sale of bituminous/traditional house coal for domestic burning

Our Clean Air Plan for Wales commits us to prohibiting sale of the most polluting fuels throughout Wales. Next to wet wood, traditional house coal is one of the most polluting fuels (in terms of PM_{2.5}) on the domestic market which, in recognition of the associated carbon emissions, requires immediate action to tackle. Smokeless coal such as anthracite on the other hand is estimated to be four times less polluting than bituminous/traditional house coal and is comparable to manufactured solid fuels in terms of emissions produced and overall burn/heat efficiency.

In terms of heating costs¹⁷, whilst bituminous/traditional house coal is on average cheaper than smokeless fuels the annual delivered energy cost is greater, dependent of course on the efficiency of the appliance used. We estimate a very small fraction of consumers who use traditional house coal for total heating with room heaters would experience an increase in the overall cost of fuel if they are currently using the lowest cost, most heat inefficient coal. Alongside any restriction on sale and use of such coal, there would be a need for an effective campaign to demonstrate the cost and efficiency of alternative heating fuels. We have considered potential mitigating actions for vulnerable groups, including those living in fuel poverty and welcome further feedback on how this should be managed.

We intend to deliver the proposed ban through engagement with the main suppliers. This will address the majority of the market quickly and with relative ease. One model to consider would be similar to that adopted in Ireland where all coal bagging operators and fuel suppliers for the residential market must register with the appropriate body (the EPA in Ireland) and maintain a record of their product showing that it is compliant with the Regulations.

Alternatively, an industry led product accreditation certificate (similar to the Ready to Burn certification in respect of wood) could be established to help suppliers and consumers identify the appropriate products.

Informed by the feedback from this consultation we will fully examine the delivery options for Wales, taking account of existing good practices models such as that employed in Ireland.

¹⁷

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/867429/burning-wood-consult-bsria-report1.pdf

Questions

1. Do you agree that we should phase out the sale of bituminous/traditional house coal for domestic consumption?
2. What do you consider is a reasonable transition period to allow industry and householders to use up existing stock?
 - a. 1 year?
 - b. 2 years?
 - c. No transition period?
3. In the event of a ban we would need to ensure that bituminous/traditional house coal products are prevented from being marketed as “smokeless” or “low smoke” fuels?
 - a. Would you consider the Irish model of registration of suppliers appropriate? (please provide your reasoning)
 - b. Would you prefer to see an industry-led approach? (similar to “Ready to Burn” scheme referred to in the wood section below)
4. In order to comply with any proposal to phase out bituminous/traditional house coal what adjustment, if any, would your business need to make?
5. What support might you require to make these adjustments?
6. Do you agree that we are taking appropriate steps in view of the need to reduce our carbon emissions?
7. If you have any further comments or suggestions on this section, please provide them here.

Prohibit the sale of wet wood for domestic burning

Estimating the consumption of firewood is difficult due to the large number of suppliers and the potential for private or self-supply. Defra's Clean Air Strategy estimated consumption at up to 6M tonnes a year¹⁸. The Forestry Commission suggests the figure to be closer to 3M tonnes. Fuel suppliers estimate this figure to be closer to 2.5M tonnes a year with consumption in Wales roughly 150-200 kilotonnes¹⁹. The HETAS with support from the Stove Industry Alliance carried out a survey in 2019²⁰ which was independently verified by Kiwa, based on 10,620 respondents. This survey showed that the volume of wood burnt was 1.85M tonnes, less than a third of the estimate used in Defra's Clean Air Strategy.

A Wales wide survey conducted in 2012 estimated that annual usage for domestic burning was approximately 576,000m³ of solid wood²¹. Without information on the particular types and density of the wood, it is not possible to convert this volume into a weight equivalent. It is clear however that a significant amount of wood is being burnt in Wales annually.

Wood is ordinarily categorised as being dry if it has less than 20% moisture and wet if the moisture content is above 20%. Freshly cut wood can have as much 60% moisture at the point it is felled whereas wood that has been naturally dried / seasoned or kiln dried has on average between 12%-20%. Kiln dried wood requires some form of energy input to dry the wood while naturally dried wood generally does not.

Wood with a higher moisture content is found to produce more smoke than dry wood. Equally, wood that is too dry burns too quickly which in turn increases unwanted emissions. A little moisture is good for moderating the burn rate.

Determining the moisture content of wood when it is burned is even more challenging than the total volume. Estimates from industry suggest that around 80% of wood is supplied wet; but other sources such as the Domestic Wood-Use Survey²² run by Business Energy and Industrial Strategy (BEIS) suggest a much lower proportion – possibly as low as 20%.

Much of the wood sold in smaller quantities, for example at service stations, DIY stores, garden centres and at the roadside, is incorrectly assumed to be dry and as such is used immediately. We propose to bring forward legislation which prohibits the sale of wood with a moisture content of 20% or more, except when it is bought in larger quantities with the intention of seasoning it prior to use.

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<https://www.gov.uk/government/publications/summary-results-of-the-domestic-wood-use-survey>

¹⁹ CPL Industries market calculation, 2019

²⁰ <https://www.auldtonstoves.co.uk/wp-content/uploads/2019/12/A-Review-of-the-Impact-of-Domestic-Combustion-on-UK-Air-Quality-1.pdf>

²¹ <https://laisygoedwig.org.uk/wp-content/uploads/2013/12/Wales-Domestic-Firewood-Survey-2012.pdf>

²² [Summary of the domestic wood-use survey, BEIS](#)

In consideration of the potential impact of this on fuel suppliers in Wales, an appropriate transition period may be required to allow suppliers to season or otherwise sell existing supplies.

In order to implement this change, as has been proposed by the UK Government, the Welsh Government proposes to build upon the existing industry-led Ready to Burn certification scheme. Suppliers wishing to sell wood after the transition period would need to apply for the appropriate certification.

Questions

- 8. We are considering a minimum volume for the sale of wet wood to householders. We are proposing that this is set at 2m³, but we wish to seek views on this point. Please indicate what limit you think this should be set at.**
- a. There should be no limit
 - b. No volume below 0.5m³
 - c. No volume below 1m³
 - d. No volume below 2m³
 - e. No sales of wet wood

Note: A normal net bag of wood purchased from a DIY store, garage or other outlet is usually less than 0.1m³.

- 9. Do you think that suppliers and retailers should be given a transition period to sell existing stocks of wet wood?**

Note: Suppliers and retailers would be permitted to store supplies of wet wood for drying however they would not be allowed to sell this to domestic consumers if it has a moisture content above 20%.

- 10. If so, how long should any transition period be?**

- a. 1 year
- b. 2 years
- c. No transition period

- 11. Do you agree that wood fuel suppliers should be required to be members of a certification scheme that provides assurance (via testing and auditing) that the wood is of a moisture content of 20% or less?**

- a. Yes
- b. No

- 12. Do you agree that retailers selling wood should be legally required to store the wood in such a way that it will maintain at least the stated moisture content?**
- a. Yes**
 - b. No**
- 13. Alternatively, would you welcome a campaign to provide guidance to both retailers and households on how best to store both wet and dry wood, and how long to store to ensure it is seasoned properly?**
- a. Yes**
 - b. No**
- 14. Do you feel Welsh Government should treat kiln dried wood differently to naturally dried wood or treat both types equally?**
- 15. Should the sale of wet wood to domestic properties be treated differently in rural as opposed to urban settings?**
- 16. If you are a supplier/retailer, how would these proposals affect your business?**
- 17. What support might you require to make these adjustments?**
- 18. If you have any further comments or suggestions on this section, please provide them here.**

Applying standards to manufactured mineral solid fuels

Fuels with a high sulphur content are harmful to human health and the natural environment. SO₂ causes nerve stimulation in the lining of the nose and throat. This can cause irritation, coughing and a feeling of chest tightness, which may cause the airways to narrow. People suffering from asthma and other respiratory ailments are considered to be particularly sensitive to SO₂ concentrations²³.

In Wales domestic burning is estimated to contribute 18% of the total SO₂²⁴ emissions, compared to 23%²⁵ across the UK as a whole. Nevertheless, feedback from the Welsh Government's Domestic Combustion Task and Finish Group, supported by discussions with officials in Defra supports the need to regulate the sulphur content of manufactured fuel products. The seemingly low cost of high sulphur raw materials for manufactured solid fuels and the lack of regulation to limit the amount being used has resulted in a greater take up from industry.

As it currently stands, only fuels intended for use in a SCA have a sulphur content limit of 2% but not elsewhere. Only four Local Authorities in Wales have SCAs²⁶ and as such the sulphur content in fuels for the majority of the country remain unregulated. The problem is often compounded by the availability of a number of marketed smokeless solid fuels which have significantly higher sulphur content levels.

Engagement with both chimney sweeps and stove manufacturers has emphasised the detrimental effect high sulphur fuels can have on appliances and chimneys, often significantly shortening the product lifespan and reducing their efficiency.

Fuels approved for use in a SCA also have to pass a smoke emission test ensuring that they emit no more than 5 grams of smoke per hour of operation. We are also proposing to apply the smoke emissions standard to all manufactured mineral solid fuels for use anywhere in Wales.

This will provide a clear minimum standard for all manufactured solid fuels in Wales and aligns with proposals from Defra, which is especially important for communities near the border.

Questions

19. Do you agree that we should introduce a standard for all manufactured mineral solid fuels which confirms they are below 2% sulphur and meet a smoke emissions limit of 5g/hr?

- a. Yes**
- b. No**

²³ https://naei.beis.gov.uk/overview/pollutants?pollutant_id=8

²⁴ As above

²⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/778483/Emissions_of_air_pollutants_1990_2017.pdf

²⁶ Flintshire County Borough Council, Newport City Council, Swansea Council and Wrexham County Borough Council.

20. In order to comply with any proposal to apply sulphur and smoke emissions standards to all manufactured mineral solid fuels, what adjustment, if any, would your business need to make?

Manufactured biomass solid fuels

There are an increasing variety of alternative biomass based solid fuels on the market and being developed, such as waste coffee ground logs and pellets. The UK Government's Secretary of State for Business Energy and Industrial Strategy (BEIS) has approved a Sustainable Fuel Register (SFR) to certify such products. The certification regime is currently focused on reducing greenhouse gas (GHG) emissions. We propose to engage with SFR and BEIS to expand the certification to include air quality factors such as PM.

Questions

- 21. Do you agree we should endorse the SFR and actively encourage applications from manufacturers in Wales?**
- 22. Do you agree any registration scheme for manufactured biomass solid fuels should be expanded to include testing and certification for PM and other emissions?**
- 23. If you have any further comments or suggestions on the sections on manufactured fuels, please provide them here.**

Appliances

Whilst new stoves are becoming more efficient, there is still an issue over how to address older, less efficient and more polluting appliances. There is an initial question as to how best to identify these appliances and a supplementary matter of how best to ensure that they are, where practical and possible, replaced.

In respect of new appliances, the new clearSkies labelling system will help ensure consumers are clearer about the options available to them, and are able to make more informed choices when considering a purchase.

Questions

- 24. Do you agree an appropriately qualified technician (installers, service engineers and sweeps) should be certified to enable them to give environmental guidance and condemn dangerous appliances?**
- 25. Some regions of France require chimneys to be swept annually by a registered and qualified sweep. Otherwise, in the event of a fire caused by the stove, the home insurance will not be valid. Do you agree this approach should be adopted in Wales?**
- 26. Would you consider some form of scrappage scheme to be an appropriate method to encourage the replacement of inefficient appliances currently in use?**
- 27. Should any scrappage scheme be limited to households where the burning of solid fuels is the primary heat source or should this be expanded to encourage people to use non-carbon heating?**
- 28. It is presently outside the scope of the Welsh Government to set taxation rates. Do you support a proposal to explore a lower VAT rate on domestic fire and stove maintenance to encourage householders to maintain their appliances regularly?**

Support for households to change to alternative heating sources

Changes to the availability of certain fuel types, particularly bituminous or traditional house coal and unseasoned wood which may be sourced more cheaply than other fuels, have the potential to impact on fuel poverty. This is particularly the case in rural areas where access to alternatives are restricted or uneconomical. The Welsh Government is determined to eradicate fuel poverty, and so any actions taken on domestic burning must not result in keeping people in, or moving them towards, fuel poverty. Working towards Net Zero will play a part here, as governments across the UK develop strategies to electrify the heating of our homes, and reduce the use of high carbon fuels.

We are therefore seeking opinions on a range of options which have been developed and are outlined below. We also wish to identify any alternative options for supporting households to transition away from domestic burning and install less polluting, more sustainable and greener heating sources, or to install more efficient appliances where more sustainable options are uneconomic or unsuitable.

Option 1 – Voluntary Scrappage Scheme

Voluntary scrappage schemes have been tried in a number of European countries, with varying degrees of success. This option would provide support for eligible households currently using open fires or wood-burning/multi-fuel burning stoves as their primary heat source. The support would be intended to upgrade to alternative sources of heating where possible, and to a more efficient, Ecodesign compliant appliance where this is impractical or too costly.

The approach would be to establish eligibility, prioritise those households most in need and with a sliding scale of support depending on circumstances.

1. Eligibility
 - a. Fuel poverty;
 - b. In receipt of benefits/universal credit;
 - c. Member of household with limiting health conditions (including respiratory diseases, COPD, childhood asthma);
 - d. Others in rural communities.
2. Prioritisation of household criteria
 - a. Currently primary/sole source of heating;
 - b. Home with no or low insulation;
 - c. Off gas-grid.
3. Sliding scales of support depending on eligibility and household criteria
 - a. Full support for eligible households to change from coal/wood to non-carbon sustainable heating; e.g. electric, solar, air or ground source heat pumps;
 - b. A% for eligible households to convert from coal/wood to other forms of heating;

- c. B% if upgrading from open fire / older less efficient wood-burning stove to modern eco-design compliant appliance, only where no alternative source of heating is viable.

Option 2 – Mandatory removal/replacement of non-compliant appliances

This option considers the introduction of a registration scheme that would record all households where domestic burning is used as a source of heat. This would require engagement with industry bodies and businesses such as coal merchants, wood suppliers, chimney sweeps and stove installers in order to identify such households.

The proposal would be to initially compile a register of all households with open fires and appliances, then working with appropriately qualified personnel in the installation and maintenance fields determine how many are compliant with Ecodesign requirements. Support would then be provided for households to replace any existing systems with alternative heating sources.

1. Registration of homes with open fires and wood or multi-fuel burning appliances;
 - a. Compulsory testing of appliances to assess compliance with Ecodesign criteria. Failure to meet those criteria would result in the mandatory replacement of appliances:
 - i. Full support if changing from coal/wood to non-carbon sustainable heating; e.g. electric, air or ground source heat pumps;
 - ii. Full support if converting from coal/wood to other forms of heating;
 - iii. A% support if upgrading from open fire / older less efficient wood-burning stove to modern eco-design compliant appliance only where other alternatives are unavailable/uneconomical to run.

Option 3 – Combination of Voluntary Scrappage Scheme and Expanded SCA

This option considers the impact of including SCA residents within the scope of a scheme. Greater support for non-SCA households with open fires or wood-burning/multi-fuel burning stoves to upgrade to alternative sources of heating may be required.

The Clean Air Act 1993 s24 provides that local authorities may contribute to any cost of adaptations to dwellings to ensure compliance with an SCA, up to 30% of the costs. Under Schedule 2 of the Act, where the dwelling predates 1964, the local authority must contribute at least 70% of the cost of adaptations.

1. Eligibility

- a. Fuel poverty;
- b. In receipt of benefits/universal credit;
- c. Limiting health conditions (including respiratory diseases, COPD, childhood asthma);
- d. Others in rural communities;
- e. Dwelling predating 1964 within SCA;
- f. Dwelling within SCA.

2. Prioritisation of household criteria

- a. Currently primary/sole source of heating;
- b. Home with no or low insulation;
- c. Off gas-grid.

3. Sliding scales of support depending on eligibility and household criteria

- a. Full support for households meeting eligibility criteria a) to d) to change from coal/wood to non-carbon sustainable heating; e.g. electric, solar, air or ground source heat pumps;
- b. A% for households meeting eligibility criteria a) to d) to convert from coal/wood to other forms of heating; for households meeting eligibility criteria e) and f) to change from coal/wood to non-carbon sustainable heating; e.g. electric, solar, air or ground source heat pumps;
- c. B% for households meeting eligibility criteria a) to d) if converting from open fire / older less efficient wood-burning stove to modern eco-design compliant appliance where no alternative source of heating is available; for households meeting eligibility criteria e) to f) to convert from coal/wood to other forms of heating;
- d. C% for households meeting eligibility criteria e) if converting from open fire / older less efficient wood-burning stove to modern eco-design compliant appliance, only where no alternative source of heating is viable;
- e. D% for households meeting eligibility criteria f) if converting from open fire / older less efficient wood-burning stove to modern eco-design compliant appliance, only where no alternative source of heating is viable.

Question

29. Do you have a preference for any of the options outlined above?

- a. Option 1**
- b. Option 2**
- c. Option 3**
- d. None of those proposed – please provide your reasoning**

Smoke Control Areas

To support these proposals, as mentioned earlier in this consultation, we are also reviewing the current regime of Smoke Control Areas (SCAs) as this would have a significant impact on the emissions from domestic burning where these are applied.

Questions

30. Would you agree that the use and coverage of SCAs should increase in order to better manage emissions from domestic burning?

31. If so in your opinion what additional coverage would be appropriate?

- a. Whole of Wales.**
- b. Major centres of population (towns and cities over a certain population size).**
- c. Some other metric e.g. concentration of housing, level of deprivation, proximity to sensitive receptors.**

Outdoor combustion

As part of the Clean Air Plan we undertook to include within this consultation the issue of outdoor domestic burning, in the form of chimineas, barbeques and firepits etc. These appliances are currently unregulated, as are the fuels used. The extension of regulation to these appliances, and the fuels used by them, is complex and potentially controversial. However, there must be recognition, the use of such appliances can cause nuisance and potentially harm the air quality, depending on the types of appliance and fuel used.

Question

32. Do you agree the Welsh Government should consider available options to regulate the types of appliance and fuels that can be used in outdoor settings?

- a. Yes**
- b. No**

Consultation Response Form

Your name:

Organisation (if applicable):

email / telephone number:

Your address:

Questions

- 1) Do you agree that we should phase out the use of bituminous/traditional house coal for domestic/residential burning?
- 2) What do you consider is a reasonable transition period to allow industry and householders to use up existing stock?
 - a) 1 year?
 - b) 2 years?
 - c) No transition period?
- 3) In the event of a ban we would need to ensure that bituminous/traditional house coal products are prevented from being marketed as “smokeless” or “low smoke” fuels?
 - a) Would you consider the Irish model of registration of suppliers appropriate? (please provide your reasoning)
 - b) Would you prefer to see an industry-led (similar to “Ready to Burn” scheme) approach?
- 4) In order to comply with any proposal to phase out bituminous/traditional house coal what adjustment, if any, would your business need to make?
- 5) What support might you require to make these adjustments?
- 6) Do you agree that we are taking appropriate steps in view of the need to reduce our carbon emissions?
- 7) If you have any further comments or suggestions on this section, please provide them here.

8) We are considering a minimum volume for the sale of wet wood to householders. We are proposing that this is set at 2m³, but we are inviting your views on this point. Please indicate what limit you think this should be set at.

- a) There should be no limit
- b) No volume below 0.5m³
- c) No volume below 1m³
- d) No volume below 2m³
- e) No sales of wet wood

Note: A normal net bag of wood purchased from a DIY store, garage or other outlet is usually less than 0.1m³.

9) Do you think that suppliers and retailers should be given a transition period to sell existing stocks of wet wood?

Note: Suppliers and retailers would be permitted to store supplies of wet wood for drying however they would not be allowed to sell this to domestic consumers if it has a moisture content above 20%.

10) If so, how long should any transition period be?

- a) 1 year
- b) 2 years

11) Do you agree that wood fuel suppliers should be required to be members of a certification scheme that provides assurance (via testing and auditing) that the wood is of a moisture content of 20% or less?

12) Do you agree that retailers selling wood should be legally required to store the wood in such a way that it will maintain at least the stated moisture content?

13) Alternatively, would you welcome a campaign to provide guidance to both retailers and households on how best to store both wet and dry wood, and how long to store to ensure it is seasoned properly?

14) Do you feel Welsh Government should treat kiln dried wood differently to naturally dried wood or treat both types equally?

15) Should the sale of wet wood to domestic properties be treated differently in rural as opposed to urban settings?

16) If you are a supplier/retailer, how would these proposals affect your business?

17) What support might you require to make these adjustments?

- 18) If you have any further comments or suggestions on this section, please provide them here.
- 19) Do you agree that we should introduce a standard for all manufactured mineral solid fuels which confirms they are below 2% sulphur and meet a smoke emissions limit of 5g/hr?
- 20) In order to comply with any proposal to apply sulphur and smoke emissions standards to all manufactured mineral solid fuels, what adjustment, if any, would your business need to make?
- 21) Would you agree that the Welsh Government should seek to endorse the SFR, or seek to adopt a similar scheme, for application in Wales?
- 22) Would you agree that any registration scheme for manufactured biomass solid fuels covering Wales should be expanded to include testing and certification for PM and other emissions?
- 23) If you have any further comments or suggestions on the sections on manufactured fuels, please provide them here.
- 24) Accepting that regular maintenance by qualified professionals improves the efficiency of any appliances, do you agree that an appropriately qualified technician (installers, service engineers and sweeps) should be trained and certified to enable them to give environmental guidance and condemn dangerous appliances?
- 25) In regions of France a chimney must be swept annually by a registered and qualified sweep otherwise in the event of a fire caused by the stove the home insurance will not be valid. Would you agree that this approach should be adopted in Wales?
- 26) Would you consider some form of scrappage scheme to be an appropriate method to encourage the replacement of inefficient appliances currently in use?
- 27) Should any scrappage scheme be limited to households where the burning of solid fuels is the primary heat source or should this be expanded to encourage people to use non-carbon heating?
- 28) While it is presently outside the scope of the Welsh Government to set taxation rates would you support a proposal to explore a lower VAT rate on domestic fire and stove maintenance to encourage householders to maintain their appliances regularly?

29) Do you have a preference for any of the options for supporting households to change, outlined above?

- a) Option 1
- b) Option 2
- c) Option 3
- d) None of those proposed – please provide your reasoning

30) Would you agree that the coverage of SCAs should increase in order to better manage emissions from domestic burning?

31) If so in your opinion what additional coverage would be appropriate?

- a) Whole of Wales.
- b) Major centres of population (Cities and towns over a certain population size).
- c) Some other metric e.g. concentration of housing, level of deprivation, proximity to sensitive receptors.

32) Do you agree that the Welsh Government should consider available options to regulate the types of appliance and fuels that can be used in outdoor settings?

- a) Yes
- b) No

Welsh Language Considerations

33) We would like to know your views on the effects that reducing emissions from domestic burning would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

34) What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

35) Please also explain how you believe the proposed policy could be formulated or changed so as to have positive effects or increased positive effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language, and no adverse effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language.

Summary

We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:

Please enter here:

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please tick here: