



Department
for Environment
Food & Rural Affairs

Consultation on cleaner domestic burning of solid fuels and wood

August 2018



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Consultation overview

[The Clean Air Strategy](#) states that air pollution is the top environmental risk to human health in the UK. We often think of air pollution as being caused by transport or industrial level burning of fossil fuels. Now that the emissions from these sources has decreased, the relative importance of emissions from other sources has increased. The Strategy is clear that we now need to tackle these other sources of air pollution, including emissions caused by heating our homes.

We have already secured a significant reduction in emissions since the 1970s, but now this trajectory has slowed. [In the Strategy](#), the government sets out its aim to reduce particulate matter emissions by 30% by 2020, and by 46% by 2030. Approximately 38% of UK primary particulate matter emissions come from burning wood and coal in domestic open fires and solid fuel stoves. This compares with industrial combustion (16%) and road transport (12%). The tiny particles in smoke can enter the bloodstream and enter internal organs, risking long term health issues as well as having more immediate impacts on some people, such as exacerbating breathing problems or triggering asthma attacks.

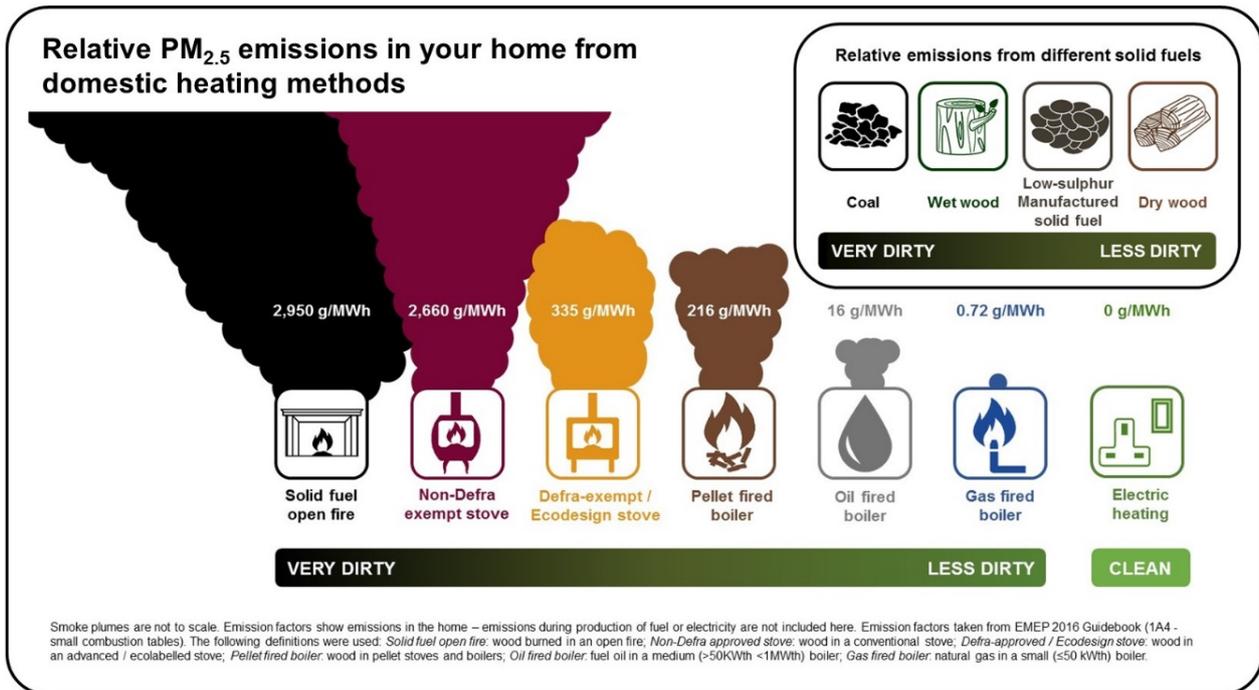
Burning domestic solid fuels leads to emissions of PM_{2.5}. The main solid fuels burned in the home are:

- Traditional house coal (or bituminous coal) – a naturally occurring mined product. PM_{2.5} emissions are higher than from 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 at least 2 years to naturally air dry
- Kiln dried wood – wood that has been kiln dried to below 20% moisture

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 due to an increase in the popularity of open fires and wood-burning stoves.

[A recent report](#) by King's College London measuring local concentrations, found that wood burning accounts for up to 31% of the urban derived PM_{2.5} in London.

Using cleaner fuels in a cleaner appliance installed by a competent person, knowing how to operate it efficiently, and ensuring that chimneys are regularly swept by a professional or registered chimney sweep all make a big difference. Defra has developed [simple guidance](#) for all local authorities to share with residents on these simple steps and is working with industry to encourage householders to take action in all these areas.



This consultation gives more detail about the proposals set out in the Strategy, focusing on the domestic use of solid fuel in England. As well as the overall impact of domestic burning on air quality for everyone, we are concerned about the health impact this can have on individuals who use solid fuel and their families. This consultation considers what further steps can be taken to encourage households to make a change from dirtier to cleaner fuels. This is in line with the Clean Growth Strategy, which sets out our commitment to phasing out high carbon fossil fuels in the future, starting with homes off the gas grid. We are therefore considering a range of options focusing on phasing out the sale of the most polluting products enabling consumers to switch to less polluting alternatives:

- Consumers who burn traditional house coal switching to alternative fuels (e.g. low sulphur manufactured solid fuels);
- Consumers switching from wet wood to dry wood (with a moisture content of 20% or less);
- Introduction of sulphur limits and smoke emission limits for all manufactured solid fuels.

We are not considering banning domestic burning. The government recognises that 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 burning. This will directly benefit consumers in their homes, as well as improving the local environment. For example, when wet wood is burned, the heat output is significantly reduced and 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.

Existing legislation

There is an existing legislative framework, which was first established by the Clean Air Act 1956 to reduce air pollution from domestic burning, particularly through the creation of Smoke Control Areas (SCAs). SCAs are specific areas, designated by local councils, where it is illegal to allow smoke emissions from the chimneys of buildings. In these areas householders can only burn authorised fuels or use an appliance (e.g. a stove) which has been exempted for use in the area. Local authorities have advised that awareness of, and compliance with, SCA orders is low and that few people make the link between domestic burning and air pollution. Some local authorities are working to raise awareness of SCAs and to re-assess their boundaries. However, they have told us that enforcement can be difficult.

The measures proposed in this consultation on fuels would not replace SCAs. Instead, they would sit alongside them and provide a basis for nationwide legislation in England to ensure that only the cleanest fuels would be available for sale. We will also be considering separately what changes should be made to SCAs and what additional powers should be given to local authorities to allow for more targeted action in areas of high pollution. Any changes to SCAs or additional powers will be the subject of a separate consultation.

Call for Evidence

In January, we issued a [Call for Evidence](#) on domestic burning of traditional house coal, smokeless coal, manufactured solid fuel and wet wood, [including background evidence](#). The purpose of the Call for Evidence was to gather more information and data on the use of fuels for domestic heating, as we seek to help householders make cleaner choices when using these fuels to heat their homes efficiently and reduce air pollution.

We asked for evidence about the number of households using each fuel to heat their home, which fuels they would switch to if they were unable to purchase these materials and whether there would be a disproportionate impact on certain individuals. We asked businesses about the impact of proposals to reduce the use of more polluting fuels would have on them, the time they would need to adjust, and for their views on specific points such as the appropriate level of sulphur in manufactured solid fuels.

We received evidence and views from a wide range of respondents, some of whom called for a total ban on domestic burning, primarily due to personal experience of nuisance or health impacts. Others felt that there should be no restrictions at all or were concerned about the impact on those in fuel poverty.

Some suggested that more should be done to help inform consumers; as many are unaware of the impacts of burning waste or cheaper fuels and some suppliers market wood as seasoned, or dried, when it is not. Many chimney sweeps highlighted that how a stove is used can have a significant impact on emissions.

Most wood fuel businesses who responded indicated that they would be able to adjust to any proposed regulations on fuel standards, however most coal businesses felt less able to adjust and were concerned about the impact.

Clean Air Strategy consultation

We have considered the responses to the Call for Evidence, and these have informed the action we propose to take on domestic burning as set out in the Clean Air Strategy consultation.

- We will legislate to prohibit the sale of the most polluting fuels.
- We will ensure only the cleanest stoves are available for sale by 2022.
- We will update outmoded legislation on 'dark smoke' from chimneys and underused provisions on Smoke Control Areas to bring these into the 21st century with more flexible, proportionate enforcement powers for local government.
- Government will work with industry to identify an appropriate test standard for new solid fuels entering the market.
- We will ensure that consumers understand what they can do to reduce their impact from emissions from domestic burning

We have asked for views on this broad set of proposals in response to the Clean Air Strategy.

Consultation on phasing out the most polluting fuels

As part of the process of changing the law, or introducing new regulations, the government is committed to consulting those likely to be affected by the change. This approach ensures that we take into account their views and the impacts the policy change will have. This more detailed consultation builds upon the earlier Call for Evidence and takes forward the first proposal in the Clean Air Strategy to phase out the sale of the most polluting fuels.

Note that as powers on air quality are devolved, this consultation relates only to proposals for England. The Devolved Administrations of Scotland, Wales and Northern Ireland would consult separately should they wish to take action in this area.

Responses received from both the Clean Air Strategy consultation and this consultation will inform our next steps which will be set out in the final Clean Air Strategy to be published by the end of the year.

The proposals in this more detailed consultation include:

- Restrictions on the sale of wet wood for domestic burning so that it can only be purchased in volumes over a specified cut-off point;
- Applying sulphur standards and smoke emission limits to all solid fuels;
- Phasing out the sale of bituminous or traditional house coal;

Evidence and opinion provided through the Call for Evidence has been taken on board, and will be highlighted throughout this document.

Timing and duration of the consultation

The consultation will be published for a period of eight weeks from the publication date at: <https://consult.defra.gov.uk/airquality/domestic-solid-fuel-regulations>

Responses should be received by **23:59 on Friday 12 October 2018**.

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

by email: cleanair.consultations@defra.gsi.gov.uk

or by writing to:

Local Air Quality Team
Department for Environment, Food and Rural Affairs
Seacole Building
2 Marsham Street
London SW1P 4DF

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.

Questions

Section 1 – Introduction: About you

1. What is your name?
2. What is your email address?
3. What is your organisation?
 - Academic
 - Distributor, e.g. retailer
 - Fuel supplier, less than 10 employees
 - Fuel supplier, 10 – 49 employees
 - Fuel supplier, 50 employees or more
 - Householder/individual
 - Industry body
 - Local authority
 - NGO – Industry
 - NGO Environmental

- Other – please specify

4. Would you like your response to be confidential?

- Yes
- No

5. What is your location?

Please enter the county, unitary authority, Scottish council area or Northern Irish county in which you or your organisation is based.

Section 2 - Wood

Burning wood with a high moisture content produces more smoke than burning dry wood (ie wood with less than 20% moisture). We want to reduce the use of wet wood without preventing people seasoning (air drying) unseasoned (wet) wood at home. Wood sold in smaller quantities is more likely to be used immediately, i.e. without being dried at home. We want to ensure occasional stove users who buy small volumes of wood for convenience are not unwittingly burning wet logs that produce high levels of smoke. We intend to limit the sales of wood sold in smaller sizes of packaging to dry wood only. Wood pellets are dry enough not to be affected, and so are not in scope of this consultation.

For those people who don't purchase their wood, and instead use wood gathered from their own land or given to them, we will work with the Forestry Commission to ensure that advice is provided on how to properly store and season wood. They already have a [helpful guide](#).

From the responses to the Call for Evidence, there was conclusive support for restrictions on wet wood sales, either covering all wet wood or sales of volumes under 2m³. Some respondents expressed concerns highlighting existing shortage of supply. Other concerns reflected that many fuel suppliers are quite small and therefore more vulnerable should we opt to make this change (with little storage space to store larger quantities of wood, for example).

Net bags of logs sold by retailers such as service stations, DIY stores and garden centres generally contain wet wood and are likely to weigh between 5 – 15kg. These nets will occupy much less than 0.5 m³ volume each (probably closer to 0.1m³). This quantity of logs is likely to be sufficient to keep a stove lit for a few hours and is a convenient size to be picked up and carried home for immediate use. However at present there is nothing to advise the consumer that this wood is not ready to be burned, and needs seasoning before use.

As expected, responses to the Call for Evidence suggested that only a minority of households burn wood as a primary heat source. They also indicated that wood-burning is less common among low-income households who tended more towards burning coal.

In order to implement this phase out, government intends to build upon the existing industry led Ready to Burn certification scheme. What this means is that anyone wishing to sell wood in volumes under the specified cut-off will need to apply to the industry's

certification agency or equivalent (currently Woodsure). Enforcement will be carried out through the certification agency's audit process complemented by Local Authority enforcement through Trading Standards.

6. We are considering a cut-off point for the sale of wet wood to householders. In line with feedback from the Call for Evidence, we are proposing that this is set at 2m³, but we are inviting your views on this point. Please indicate what limit you think a cut-off point should be set at.

- Bags/nets only
- Up to 0.5m³
- Up to 1m³
- Up to 2m³
- All wet wood
- Other

Please provide reasons or evidence to support your answer.

7. Do you think that suppliers and retailers should be given a transition period to use up existing stocks of wet wood or allow time for it to air-dry?

- No transition period
- Transition period of 1 year
- Transition period of more than 1 year

Please provide reasons or evidence to support your answer

8. Do you think that smaller suppliers and retailers should be given a longer transition period?

- Yes
- No
- Don't know/don't have an opinion

9. We are proposing that suppliers selling wet wood in volumes larger than the agreed cut-off point should be required to provide clear instructions to their consumers about how long the wood should be "seasoned" before it is burnt. Do you agree or disagree with this proposal?

- Agree
- Disagree
- Neither agree nor disagree
- Don't know/don't have an opinion

10. Do you agree or disagree 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?

- Agree
- Disagree

- Neither agree nor disagree
- Don't know/don't have an opinion

11. Do you agree or disagree that retailers selling wood should be legally required to store the wood in such a way that it will not become wet?

- Yes
- No
- Don't know/don't have an opinion

12. In order to comply with the proposal to require all businesses selling wood in volumes under 2m³ to ensure that it is dried to below 20% moisture, what adjustments, if any, would your business need to make? Please select one of the following.

- Purchase a kiln to dry wood
- Buy other equipment to season wood
- Wouldn't need to adjust
- Other (please specify)

13. Would you like to provide any further comments or evidence on our proposals or the questions in this section?

Section 3 - Coal

As well as working to meet our stringent, legally binding targets for reducing emissions by 2020 and 2030, government has committed in the Clean Air Strategy to legislate to ensure only the cleanest domestic fuels will be available for sale. We want to see a move away from using traditional house coal towards using less polluting fuels in the domestic setting by only allowing the sale of smokeless coal (or anthracite) and low sulphur manufactured solid fuel for the purpose of domestic heating. This is in line with the Clean Growth Strategy, which sets out our commitment to phasing out high carbon fossil fuels in the future, starting with homes off the gas grid.

Responses to the Call for Evidence revealed that a majority of coal suppliers (52%) considered that phasing out traditional house coal could have a significant impact on their businesses. Small coal merchants said they were most likely to go out of business, and would need time to adjust. Respondents said that phasing out traditional house coal could also be problematic for off-gas grid consumers in fuel poverty. However, given the health impacts, we are minded to take action to accelerate this shift to cleaner fuels. We have considered potential mitigating actions for vulnerable groups, including those living in fuel poverty, in section 6.

14. Do you agree or disagree that government should phase out the use of traditional house coal for domestic combustion?

- Agree
- Disagree
- Neither agree nor disagree
- Don't know/don't have an opinion

15. If you agree, what would be the most appropriate end date for phasing out the use of traditional house coal for domestic combustion?

- 2019
- 2020
- 2021
- Other
- Don't know/don't have an opinion

Please provide reasons or evidence to support your answer

16. In phasing out the use of traditional house coal as a domestic fuel, what do you consider is a reasonable transition period to allow industry and householders to use up existing stocks?

- No transition period
- Transition period of 1 year
- Transition period of 2 years
- Don't know/don't have an opinion

17. In phasing out the use of traditional house coal as a domestic fuel, government is minded to apply this to all businesses because of the health and environmental benefits of this approach. We acknowledge this may be harder for some businesses than others. Do you agree or disagree that this approach should apply to all businesses?

- Agree
- Disagree
- Smaller businesses should be given a longer transition period
- Neither agree nor disagree
- Don't know/don't have an opinion

18. If you disagree, which of the following should apply? Please select all the options you believe should apply.

- Small and micro businesses to be exempt, e.g. corner shops, independent garages, small merchants
- Other businesses to be exempt
- Coal to only be sold through authorised coal merchants
- Total phase out
- Don't know/don't have an opinion

Please provide detail of which businesses should be exempt and your reasoning.

19. In phasing out traditional house coal as a domestic fuel, government is minded to apply the phase-out nationwide across England. Do you agree or disagree?

- Agree
- Disagree
- Neither agree nor disagree

- Don't know/don't have an opinion

If you disagree, which of the following should apply?

- Coal sales to be phased out in urban areas only
- Coal sales to be limited to other specific area (please specify)
- Don't know/don't have an opinion

20. Would you like to provide any further comments or evidence on our proposals or the questions in this section?

Section 4 – Manufactured solid fuels

Many parts of the UK are Smoke Control Areas (SCAs) where householders are not allowed to emit smoke from a chimney of a building unless they are burning an authorised fuel or using exempt appliances, for example burners or stoves. At present the sulphur content of solid fuels is limited to 2% in SCAs but not elsewhere. There are a number of smokeless solid fuels which are marketed for sale outside SCAs where the sulphur content can be significantly higher. For a fuel to be used in an SCA, it also has to pass a smoke emission test ensuring that it emits no more than 5 grams of smoke per hour of operation.

High sulphur content fuels are harmful to human health and the environment. It is hard for consumers to identify at point of sale whether a product is high sulphur or not. As government already regulates the sulphur content of all liquid fuels, and in line with feedback from the Call for Evidence, government intends to extend the 2% sulphur content limit to all manufactured solid fuels nationwide with a view to reducing it further over time. We are also proposing to apply the smoke emissions standard, which is currently in place for SCAs, nationwide. This will provide a clear minimum standard for all manufactured solid fuels in England.

In response to the Call for Evidence, many in the industry indicated that high sulphur fuels had entered the market due to the low cost of high sulphur petroleum coke as a raw material (a by-product of oil refining). Flue and stove manufacturers highlighted the harm that can be caused to appliances and chimneys through burning high sulphur pet-coke products which can burn very hot and can destroy grates and chimneys. Conversely, there was also some concern about the costs to consumers of applying sulphur standards.

21. Do you agree or disagree that government should introduce a standard for all manufactured solid fuels which confirms they are below 2% sulphur and meet a smoke emission limit of 5g /hr?

- Agree
- Disagree
- Neither agree nor disagree
- Don't know/don't have an opinion

22. In introducing a sulphur and smoke emission standard, do you consider that there should be a transition period for suppliers and retailers?

- No transition period

- Transition period of 1 year
- Transition period of more than 1 year

Please provide reasons or evidence to support your answer

23. Do you agree or disagree that, over time, the 2% sulphur limit should be further reduced to 1% sulphur?

- Agree – 1%
- Agree – some other percentage (please state below)
- Disagree
- Neither agree nor disagree
- Don't know/don't have an opinion

If you agree, over what time period should the further reduction be introduced?

- 1 year
- 2 years
- 3 years
- Don't know / not applicable

Government intends to implement a nationwide sulphur and smoke standard through a certification process. All solid fuel suppliers would be required apply for certification of their products as meeting a 2% sulphur limit and 5g/hr smoke test. A clear logo would be required on all packaging showing that the product was approved. This would be supported by audit, random testing and Local Authority enforcement. This would replace the existing Clean Air Act exemption requirements for solid fuels. Fuels which are already certified as having passed this test would not need to be retested, but would need to apply the new, clear logo.

24. Do you agree or disagree that government should introduce a clear labelling requirement to demonstrate that fuels meet the standard?

- Agree
- Disagree
- Neither agree nor disagree
- Don't know/don't have an opinion

25. In order to comply with the proposal to phase out traditional house coal and apply sulphur and smoke emissions standards to all solid fuels, what adjustment, if any, would your business need to make? Please select one of the following.

- Would need to reformat our products
- Wouldn't need to adjust
- Couldn't adjust
- Other (please specify)

26. Would you like to provide any further comments or evidence on our proposals or the questions in this section?

Section 5 – Carbon reductions

Many manufactured solid fuels release a large amount of carbon dioxide for the amount of heat they provide. Some manufactured solid fuels contain biomass by-products, such as olive pulp, or coconut shells, as an ingredient, which lowers their overall carbon emissions. In line with government policy on climate change, we are considering whether we should, over the longer term, require a minimum biomass content for manufactured solid fuels.

In line with government policy on climate change, our ultimate goal is to phase out the use of high carbon fossil fuels in the home. As a stepping stone towards this, the government is considering whether to encourage the increase of biomass by-product content within manufactured solid fuels, whilst ensuring they remain below emission limits. We want to ensure that policies in this area align with our carbon reduction targets. We are interested in your thoughts on how we drive the industry to re-formulate manufactured solid fuels to deliver carbon benefits. This practice is encouraged in Ireland through their carbon tax.

We are not considering the introduction of a carbon tax, or any change in the tax regime for solid fuels. Instead, we are considering the introduction of a regulation to mandate a minimum biomass content for manufactured solid fuel.

27. Do you agree or disagree that government should, over the longer term, introduce a requirement that all manufactured solid fuels have a minimum biomass content?

- Agree – please state percentage below
- Disagree – no minimum limit
- Neither agree nor disagree
- Don't know

28. For businesses: If government mandated a biomass content how long would it take you to adjust?

- We wouldn't need to adjust
- 1 year or less
- 2 years
- 3 years
- 4 years or more
- We wouldn't be able to adjust.

29. Would you like to provide any further comments or evidence on our proposals or the questions in this section?

Section 6 - Exemptions

Responses to the Call for Evidence reveal some concern about the impact the proposed measures could have on those in fuel poverty. We want to ensure that measures introduced achieve environmental benefits but do not have an adverse impact on vulnerable groups. In this consultation, we are looking for views on the most effective ways of avoiding such an impact whilst supporting the government's objectives under the Clean Growth Strategy to phase out high carbon fossil fuel heating during the 2020s.

30. We are interested in your views on how government should support those in fuel poverty with this transition away from high-carbon fossil fuels

31. Would you like to provide any further comments or evidence on this section?

Section 7 – Implementation

Our objective is to minimise burdens for Local Authorities (eg Trading Standards Officers/Environmental Health Officers) by establishing industry-led certification and labelling by suppliers, backed up by a clear and straightforward enforcement policy. Currently, these bodies have powers to issue fixed penalty notices to deal with problems caused by litter, graffiti and noise, for example. Under the proposed legislation we would extend the range of the current powers so these bodies can issue fixed penalty notices against retailers or suppliers selling domestic burning products that did not have the appropriate certification logo or were found to have an excessive moisture content.

32. What do you think would be an appropriate level of fixed penalty related to the sale of domestic burning products?

- £300
- £500
- Other (please specify)

33. Do you think that local authorities should be required to use any funds received through fixed penalties related to the sale of domestic burning products for a specific purpose?

- Yes – please specify below
- No
- Don't know/don't have an opinion

34. Do you agree or disagree that this will deliver our objective of establishing a clear and straightforward enforcement policy, minimising burdens for Local Authorities?

- Yes
- No
- Don't know/don't have an opinion

Please suggest any alternative proposal that you consider to be more effective in delivering our objectives.

35. Government will provide advice and guidance to retailers selling domestic burning products. What format should this take?

- Leaflets
- Point of sale displays
- Social media
- Information provided with the product
- Other (please specify)

Section 8 – Information

Many respondents to the Call for Evidence said that we should provide clear information to people on how to burn better, including making people aware of the impacts of burning waste or using more polluting fuels, and the correct use of appliances. Defra has produced [an information leaflet](#). For more detail, see [the BurnRight website](#).



36. What information do you think would be helpful to enable householders to reduce their impact from domestic burning?

37. What do you think would be the most effective way of communicating information to householders? (tick all that apply)

- Through retailers
- Appliance manufacturers
- Fuel suppliers
- Chimney sweeps
- Press
- Charities
- Social media
- Doctors surgeries
- Mail shots
- Advice with council tax
- All of the above
- Other (please specify)

38. For householders: Where do you buy your fuel? (tick all that apply).

- Petrol stations
- DIY stores
- Supermarket
- Garden centres
- Local suppliers
- Coal merchant
- Farmer
- Online
- Other (please specify)

Section 9 – Additional suggestions

Do you have any additional comments/views that you wish to provide on the content of this consultation?