

**There is low public awareness of the harms of wood burning, and this topic can provoke strong reactions as well as interest.**

These Frequently Asked Questions (FAQs) are intended as a guide for organisations that want to communicate about wood burning, to help you shape your responses.

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## Misconceptions

How bad can wood burning really be? Humans have been doing it for thousands of years.

- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.
- Lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK. Burning wood accounts for 75% of these emissions.<sup>i</sup>
- Over the past ten years, the amount of harmful small particle air pollution caused by domestic burning has more than doubled, while the pollution caused by industry and cars, vans and lorries is decreasing.<sup>ii</sup>
- Wood burning in an open fire or stove – even an “ecodesign” stove – is the most polluting way to heat your home.<sup>iii</sup> Even homes with the newest “ecodesign” wood burners are three times more polluted than those without.<sup>iii</sup>
- Air pollution is the biggest environmental threat to our health. The more harmful small particle air pollution you are exposed to, the more likely you are to die from heart or lung disease or lung cancer. It can also cause diabetes, damage your brain health and lead to dementia, and affect unborn children.<sup>iii</sup>
- For the same amount of heat or energy, burning wood releases more carbon dioxide (CO<sub>2</sub>) than oil or gas.<sup>iv</sup>
- Wood burners are almost always more expensive to heat your home than gas boilers or heat pumps.<sup>v</sup>
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.

I've owned a wood burner for years and I'm healthy, so it can't be that bad?

- Wood burning in an open fire or stove (even an “ecodesign” stove) is the most polluting way to heat your home.<sup>iii</sup>
- Even homes with the newest “ecodesign” wood burners are three times more polluted than those without.<sup>iii</sup>
- The more harmful small particle air pollution you are exposed to, the more likely you are to die from heart or lung disease or lung cancer. It can also cause diabetes, damage your brain health and lead to dementia, and affect unborn children.<sup>iii</sup>
- The harmful pollution created by wood burners doesn't only affect you – it's also released into the atmosphere and can damage the health of those living around you. Most people who use wood burners in their home live in towns or cities, which creates poor air quality in these more densely populated areas.

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It's mostly people who live in rural areas who have a wood burner and they rely on it for their heating, so why is this a problem?

- Over twice as many people who burn indoors live in towns and cities than in rural areas.<sup>vi</sup>
- Only 8% of those burning indoors have no alternative source of heating – and most of these people live in rural areas and are on lower incomes.<sup>vi</sup>
- Most people who burn wood live in cities and are from more affluent households<sup>vi</sup> – yet everyone, including the most vulnerable, experiences the consequences in neighbouring homes and communities.
- Lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK. Burning wood accounts for 75% of these emissions.<sup>i</sup>
- Air pollution is the biggest environmental threat to our health. The more harmful small particle air pollution you are exposed to, the more likely you are to die from heart or lung disease or lung cancer. It can also cause diabetes, damage your brain health and lead to dementia, and affect unborn children.<sup>iii</sup>
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Loads of my neighbours have a wood burner, so they can't be that bad?

- There was a 40% increase in purchases of wood burners between 2021-22, and the Stove Industry Alliance expects sales to rise even further this winter.
- In January 2023 London's air was the dirtiest it has been in six years – up to 70% of the soot/black carbon in the air came from wood burning.<sup>vii</sup>
- Only 8% of those burning wood do so because they have no other choice.<sup>vi</sup> Most people burn for aesthetic and lifestyle reasons, or because they believe it's cheaper than using other forms of heating.
- Wood burning in an open fire or stove (even an "ecodesign" stove) is the most polluting way to heat your home.<sup>iii</sup>
- Wood burners are almost always more expensive to heat your home than gas boilers or heat pumps.<sup>v</sup>
- For the same amount of heat or energy, burning wood releases more carbon dioxide (CO<sub>2</sub>) than oil or gas.<sup>iv</sup>
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.

Why is this a problem now, all of a sudden?

- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.
- Air pollution is the biggest environmental threat to our health. Lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK.<sup>i</sup>
- We want to help protect people and planet by shining a light on myths about wood burning being cheaper or more environmentally friendly.
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.

Is this still a problem if I'm not in a smoke control zone?

- Smoke control areas (SCAs) are areas in England where wood cannot be burned, except in an exempt appliance – also known as “ecodesign” stoves.
- But, wood burning in an open fire or stove – even an “ecodesign” stove – is the most polluting way to heat your home. Even homes with the newest “ecodesign” wood burners are three times more polluted than those without.<sup>iii</sup>
- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.
- Lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK. Burning wood accounts for 75% of these emissions.<sup>i</sup>
- Over the past ten years, the amount of harmful small particle air pollution caused by domestic burning has more than doubled, while the pollution caused by industry and cars, vans and lorries is decreasing.<sup>ii</sup>

Surely burning wood is better than burning fossil fuels?

- For the same amount of heat or energy, burning wood releases more carbon dioxide (CO<sub>2</sub>) than oil or gas.<sup>iv</sup>
- Cutting down trees destroys forests, damages ecosystems and leads to biodiversity loss.<sup>viii</sup>

## Types of burning

Aren't open fires the problem, not stoves?

- While open fires are the most polluting way to heat your home, even homes with the newest “ecodesign” wood burners are three times more polluted than those without.<sup>iii</sup>
- Almost twice as many people who burn indoors use a stove rather than an open fire.<sup>vi</sup>

# Wood burning FAQs



Surely eco-stoves are fine? Why do they sell eco-stoves then?

- Even homes with the newest “ecodesign” wood burners are three times more polluted than those without.<sup>iii</sup>
- For the same amount of heat or energy, burning wood releases more carbon dioxide (CO<sub>2</sub>) than oil or gas.<sup>iv</sup>
- Cutting down trees destroys forests, damages ecosystems and leads to biodiversity loss.<sup>viii</sup>
- The “ecodesign” label on stoves is unfortunately misleading consumers to believe that burning wood in these stoves doesn’t produce pollution or harm the environment – whereas the truth is that wood burning harms your health and the planet.
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.

Does it matter what sort of wood you burn?

- Wood burning in an open fire or stove is the most polluting way to heat your home.<sup>iii</sup>
- Burning well-dried wood will reduce the amount of pollutants produced to a quarter of the pollution of wet wood, but it is still highly polluting compared to other heat sources.<sup>iii</sup>
- Burning wet or contaminated wood is even worse for your health. If you burn wet wood, the fuel will burn at a lower temperature and result in a higher level of air pollution. Burning contaminated wood, such as painted or treated/preserved wood, will also create more air pollution.

What about bonfires and/or wood burning in restaurants? Why should I change?

- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.
- Bonfires contribute to outdoor air pollution, so they are an issue, but not what we are focusing on in this campaign. Indoor wood burning stoves also contribute to outdoor air pollution for all of the neighbourhood around each burner.
- Wood burning in restaurants contributes to outdoor and indoor air pollution, so it is an issue, but not what we are focusing on in this campaign.

## Cost

Surely it’s cheaper to burn wood than use a gas boiler, given the rise in energy prices?

- Wood burners are almost always more expensive to heat your home than gas boilers or heat pumps.<sup>v</sup>

# Wood burning FAQs



- The exception is if you have access to a forest and can forage your own wood – but then the wood must be dried properly, for at least two years.
- Even homes that have the newest “ecodesign” wood burners are three times more polluted than those without. <sup>iii</sup>
- Our economic research results are the average of a 15-year projection which takes into account future trends in energy prices.

## Air pollution

Isn't transport a bigger problem for air pollution?

- Lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK. Burning wood accounts for 75% of these emissions. <sup>i</sup>
- Wood burners and open fires produce more harmful small particle air pollution in the UK than cars, vans and lorries. <sup>ix</sup>
- Over the past ten years, the amount of harmful small particle air pollution caused by domestic burning has more than doubled, while the pollution caused by industry and cars, vans and lorries is decreasing. <sup>ii</sup>

## Campaign

Are you trying to get a ban on wood burning stoves?

- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.
- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.
- Air pollution is the biggest environmental threat to our health, and lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK.
- It tends to be the wealthiest who use wood burners in cities<sup>vi</sup> – yet everyone, including the most vulnerable, experiences the consequences in neighbouring homes and communities.
- Ultimately, wood burners are a luxury we can't afford in urban areas.

Don't be a killjoy – aren't there bigger things to worry about?

- Air pollution is the biggest environmental threat to our health, and lighting fires in our homes (domestic burning) is the single biggest source of harmful small particle air pollution in the UK.
- There is new and mounting evidence that shows wood burning harms your wallet, your health and the planet.

# Wood burning FAQs



- We know that this information is not widely known or spoken about. The aim of Clean Air Night is to empower the public with the facts about wood burning so they can make informed choices for themselves, their health and their community.

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<sup>i</sup> Emissions of air pollutants in the UK – Particulate matter (PM10 and PM2.5)

<sup>ii</sup> Tables for emissions stats publication 2021

<sup>iii</sup> Chief Medical Officer's annual report 2022: air pollution

<sup>iv</sup> Range and uncertainties in estimating delays in greenhouse gas mitigation potential of forest bioenergy sourced from Canadian forests

<sup>v</sup> Wood burning is more expensive than central heating

<sup>vi</sup> Burning in UK Homes and Gardens, Research Report

<sup>vii</sup> Worst London air pollution in six years as home fires burn

<sup>viii</sup> A stand of trees does not a forest make: Tree plantations and forest transitions

<sup>ix</sup> Emissions of air pollutants in the UK - Summary