# Wood-burning stoves surge sparks new UK air pollution hotspots outside major cities



The rise in the number of homes fitted with wood-burning stoves across the United Kingdom is contributing to emerging air pollution hotspots, particularly in urban areas outside major cities, according to a recent analysis led by University College London (UCL). The study indicates that the density of wood burners in particular neighbourhoods correlates with elevated levels of air pollution during winter evenings.

The UCL research highlights that Worthing, Norwich, Reading, Cambridge, and Hastings are leading in stove density, each boasting more than 100 wood burners per square kilometre. Despite the prevailing view that newer, less polluting stoves would reduce particle emissions, the increasing prevalence of wood-burning appliances is raising concerns about worsening air quality.

Data from energy performance certificates (EPCs), required when homes are sold or rented, shows a notable uptick in households installing wood burners. The percentage of homes with wood-burning stoves increased from 9.4% in 2022 to 10.3% in 2024. This analysis encompassed 3.2 million certificates, revealing significant growth in mainly rural regions. Notably, certain council areas, such as West Berkshire, Wychavon in Worcestershire, and Rother in Kent, reported increases of over eight percentage points. Hastings, already identified as an urban hotspot, saw the percentage of homes with wood burners rise from 7.7% to 15.3% during the same period, while Worthing recorded a jump from 12.3% to 15.5%.

Criticism has been directed at the UK's regulatory framework for solid fuel burning. Dr James Heydon from the University of Nottingham remarked, “We are still using a regulatory system designed in the 1950s to tackle visible smoke from coal fires, even though today’s problem is the largely invisible but no less harmful particle pollution from wood burning.” This highlights the challenges of addressing modern air quality issues with outdated regulations.

Larissa Lockwood, representing the charity Global Action Plan, noted that if current trends persist, nearly one million wood-burning stoves could be installed over the duration of the current parliamentary term. Lockwood's team has collaborated with a panel of 16 expert advisers to develop a policy pathway aimed at phasing out wood burning in homes that have alternative heating sources by 2030. The proposed measures include public information campaigns to educate residents about the air quality impacts of solid fuel burning, reforms to building regulations, and a potential ban on the installation of new wood burners.

Additionally, there are suggestions for health warnings on stoves and a burner alert system to discourage use during periods of high air pollution. Andy Hill, chair of the Stove Industry Association, has advocated for modern, eco-design-compliant stove technologies to replace older models, asserting that such a shift would help maintain a downward trend in emissions from domestic combustion.

The evolving landscape of wood-burning stove usage presents significant implications for air quality and public health, prompting a need for ongoing discourse and potential regulatory reforms to mitigate the associated risks.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.ft.com/content/3f7c1ad0-b8f5-4cac-baed-0355d1ed3b72> - This article discusses the seasonal risk of air pollution in the UK due to the rising popularity of wood-burning stoves, highlighting concerns about increased PM2.5 concentrations during winter months.
* <https://www.theguardian.com/environment/2023/feb/14/wood-burning-air-pollution-uk-doubled-decade> - The article reports on the doubling of air pollution from wood burning in the UK over the past decade, emphasizing the significant contribution of domestic wood burning to PM2.5 emissions.
* <https://www.imperial.ac.uk/school-public-health/environmental-research-group/research/measurement/london-wood-burning-project-air-quality-data-collection/> - This study by Imperial College London investigates the impact of wood and solid fuel burning on air quality in London, providing data on PM2.5 increases associated with such activities.
* <https://www.birmingham.ac.uk/news/2024/woodburning-creates-major-pm2.5-air-pollution-issue-in-west-midlands> - Research from the University of Birmingham highlights the significant contribution of wood burning to PM2.5 levels in the West Midlands, underscoring the regional impact of this practice.
* <https://www.theguardian.com/environment/article/2024/sep/06/deadly-impact-burning-wood-stoves-fireplaces-london-pollutionwatch> - This article examines the health impacts of burning wood and other solids in London, linking increased pollution from these sources to higher daily death rates.
* <https://www.sheffield.ac.uk/news/indoor-wood-stoves-release-harmful-emissions-our-homes-study-finds> - A study from the University of Sheffield reveals that indoor wood stoves significantly increase levels of harmful particulate matter in homes, with peak levels occurring during refueling.
* <https://www.theguardian.com/environment/2025/may/02/rise-in-percentage-of-homes-with-wood-burners-since-2022-analysis-finds> - Please view link - unable to able to access data