

## **Market Data**

- 2.4 million dwellings in Scotland – [Source: Scottish Gov](#)
  - 6.1% of which (151,108 dwellings) burn wood fuel indoors (approx 2:1 Urban:Rural split)
  - 2.4% of which (60,103 dwellings) burn coal indoors (approx 1.4:1 Urban:Rural split)[Source: Kantar, Burning in UK homes and gardens Annex B – domestic solid fuel usage tables](#)
- Scottish stove industry worth approx. £60 million annually
- Supporting approx. 2,000 jobs across Scotland made up of:
  - Stove retail business across Scotland with 2-3 employees each (SIA estimate)
  - Manufacturer sales representatives and local distributors/supplier depots
  - Certified and non-certified chimney sweeps
  - Stove installers
  - Wood and solid fuel suppliers ([Further data on wood fuel market size in Scotland can be found here](#)).

NB: SIA estimates total UK stove industry to be worth approx. £750 million, supporting approx. 25,000 jobs. Calculations for Scotland based on 8% of total UK dwellings being in Scotland (England, Scotland, Wales & NI dwellings combined = 29.6 million)

## **Key Facts – Particulate Emissions, Appliance Efficiency & Industry Advances**

- Modern stoves (defined as Ecodesign compliant) produce up to 90% less particulate emissions than an open fire, and up to 80% less than many older stove models. (Older stove models being classified as closed stoves pre 2001 and stoves that comply with the EN13240 standard introduced in 2001). [Source: Kiwa Report No. 60578.](#)
- Modern stoves account for 1.8% of total PM2.5 emissions; when burning dry wood fuel only this reduces to 0.3%. [Source: NAEI, 2022](#)
- Modern stoves will use 1/3 of the total amount of wood fuel required by an open fire to produce 4kW of heat over a 5-hour period.
- Modern stoves operate at efficiency levels of 80-85%, comparable to the most efficient gas boilers and gas local space heaters.
- The UK stove industry has been ahead of the curve in addressing emissions. The SIA Ecodesign Ready certification scheme (identifying stoves that met the criteria of Ecodesign) was launched in 2017, a full five years before the Ecodesign Regulation became law in 2022. This has since been superseded by the fully independent appliance certification scheme, [clearSkies](#). All clearSkies certified stoves meet the requirements of Ecodesign, with certification Levels 4 and 5 verifying that the certified appliance's emissions are lower and the efficiency is higher than those required by Ecodesign requirements.
- The industry has been supportive of Smoke Control Area legislation and welcomed the introduction of the Domestic Solid Fuels Standards in England which banned the sale of house coal and wet wood. This support has been communicated via the SIA's and other industry bodies participation in the various CAFS2 strategy meetings.
- The development of National Occupational Standards for chimney sweeping was approved by the Scottish Government, along with the development of the L2 and L3 NVQs for sweeps and installers to ensure credibility and to expand the effectiveness of the customer advocacy role played by chimney sweeps in system design, installation, service maintenance and end-use.
- The effect of end-user education is having a positive effect – with PM2.5 emissions from domestic wood fuel use falling by 2.7% between 2021 and 2022. [Source: Emissions of air pollutants in the UK.](#)

## **Key Facts – Carbon Emissions**

- Banning wood burning stoves in home will likely INCREASE carbon emissions for heating:
  - The CO<sub>2</sub>eq emission factor (kgCO<sub>2</sub>e/kWh) of wood logs is 1/19<sup>th</sup> that of electricity (0.01074 compared to 0.207074) and 1/16<sup>th</sup> that of mains gas (0.01074 compared to 0.18). Source: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>
  - An alternative comparison is that wood fuels deliver carbon savings compared to fossil fuels and compared to most forms of renewable energy as well. According to the [Review of the Scottish Wood Fuel Industry, Sept 2021](#) conducted on behalf of Scottish Forestry, burning logs generates 4g of CO<sub>2</sub> per kW hour, compared to 48g/kWh for wind energy and 123g/kWh for ground source heat pumps (see p.9).
  - A modern wood stove emits 94% less CO<sub>2</sub> than direct electric heating e.g. an electric fire and just 22% of the total kgCO<sub>2</sub>e of a heat pump with a coefficient of performance (COP) of 3.5.
  - When a heat pump is required to provide heat suddenly, for example during temperature fluctuations, the COP drops and carbon emissions increase even when the latest high temperature heat pumps that achieve a COP of around 3 are deployed – see <https://www.bbc.co.uk/news/business-67511954> When a modern stove is paired with a heat pump, not only is the optimal heat pump operation facilitated, but top-up heat from the stove is available on demand to mitigate temperature fluctuations and weather events
  - The specification within the New Build Heat Standard for the use of portable home heaters as emergency heaters does not reduce carbon.
  - The exclusion of low carbon technology such as modern stoves from the New Build Heat Standard and the proposed Heat in Building Bill is in direct conflict with the stated goals of both pieces of legislation.

## **Key Facts – Grid Independence & Resilience, Fuel Poverty & Consumer Wellbeing/Choice**

- 170,000 properties (7% of total dwellings) in Scotland are off-gas. [Source: Heat in Buildings Strategy.](#)
- [Scottish Conservative information indicates 40,000 of those homes are unsuitable for heat pumps.](#)
- 31% of Scottish households live in fuel poverty, with 20% classed as “extreme”. Source: <https://fuelpovertypanel.scot>
- There has been a 38% increase in the number of Scottish households living in fuel poverty since 2019.
- Having a modern stove as a local space heating appliance ensures heat is always available in the event of a power cut and offers a cushion against fluctuating gas and electricity prices.
- Wood fuel is a “bought and paid for” fuel, no direct debit or standing order required, helping to visibly monitor fuel use and aid household fuel budgeting.
- A modern stove can be beneficial for older, poorly insulated properties as they are highly effective at providing space heating and reducing condensation, helping to alleviate mould and damp.
- A real fire can help promote feelings of warmth and security, and provides a focal point for the family benefitting mental wellbeing. [Source: National Library of Medicine](#)
- The New Build Heat Standard and the proposed Heat in Building Bill effectively removes the consumer right to choose how to heat their home and provide energy security for their family.
- A modern stove as a secondary heat source offers grid resilience and protects the vulnerable by ensuring a reliable source of heat in the event of power cut.

**Stove industry is seeking urgent clarity on:**

- **Why were industry bodies not directly consulted on the New Build Heat Standard or Heat in Buildings Bill?**
  - This seems particularly important as the impact on the stove industry is significant. The SIA has always willingly engaged with Scottish Government e.g. Clean Air for Scotland and Clean Air for Scotland 2 and has been approached on other consultations such as Permitted Development Rights.
- **How are local authorities being instructed to interpret and enforce the New Build Heat Standard particularly in relation to the interpretation of an application for “emergency heating” based on fuel poverty, grid security and/or weather-related power cuts?**
  - It is important that emergency heating also includes necessary heat to provide comfort for the householder in times of hardship or vulnerability.
- **How are local authorities being instructed to interpret and enforce the New Build Heat Standard particularly in relation to the interpretation of “new build” as it relates to “extensions”?**
  - Some Local Authority building control officers are saying an extension will class as a “new build” due to having a new building warrant, therefore a wood burner would not be permitted unless for emergency use?
- **Fundamentally if the intention is to reduce carbon emissions why are highly efficient, low carbon technologies in the form of woodburning / multifuel stoves being banned in new builds?**
  - To be able to heat their household efficiently with a low carbon fuel that they may have produced or amassed themselves appears to many as a fundamental human right.
- **Does the use of the term “heating systems” within both the New Build Heat Standard and the Heat in Buildings Bill include the use of solid fuel local space heaters?**
  - The original New Build Heat Consultation seemed to focus on main/principal/primary/ central heating yet evolved to include secondary heating, so can assurances be sought that the Heat in Buildings Bill will not follow a similar path?
- **Furthermore, the Heat in Buildings Bill seems to suggest that purchasers of homes will be obliged to replace solid fuel heating systems within a period of time. This seems neither affordable, nor fair nor feasible.**