



Wood Burning Stoves: the Industry's Perspective.

12th June, 2018



Stove Industry Alliance (SIA)



- Represents the majority of stove manufacturers and distributors, wood suppliers, flue and glass companies and industry supporters.



Stove Industry Alliance (SIA)



Our purpose is:

- to represent the industry in discussions with all relevant regulatory and legislative bodies.
- to promote and explain the benefits and environmental advantages of stoves.



The Industry's Approach



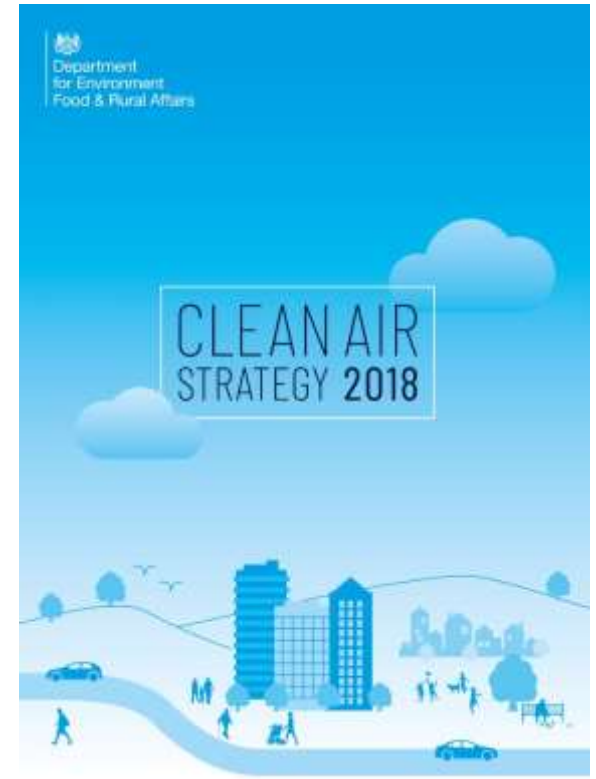
- Proactive in improving efficiency and reducing the Ecodesign emissions and in particular PM.
- Support improved fuel quality.
- Educate stove users and the public.
- Work closely with Defra .



The Industry's Approach



- SIA in tune with Defra.
- Defra brought together the wider industry:



Ecodesign

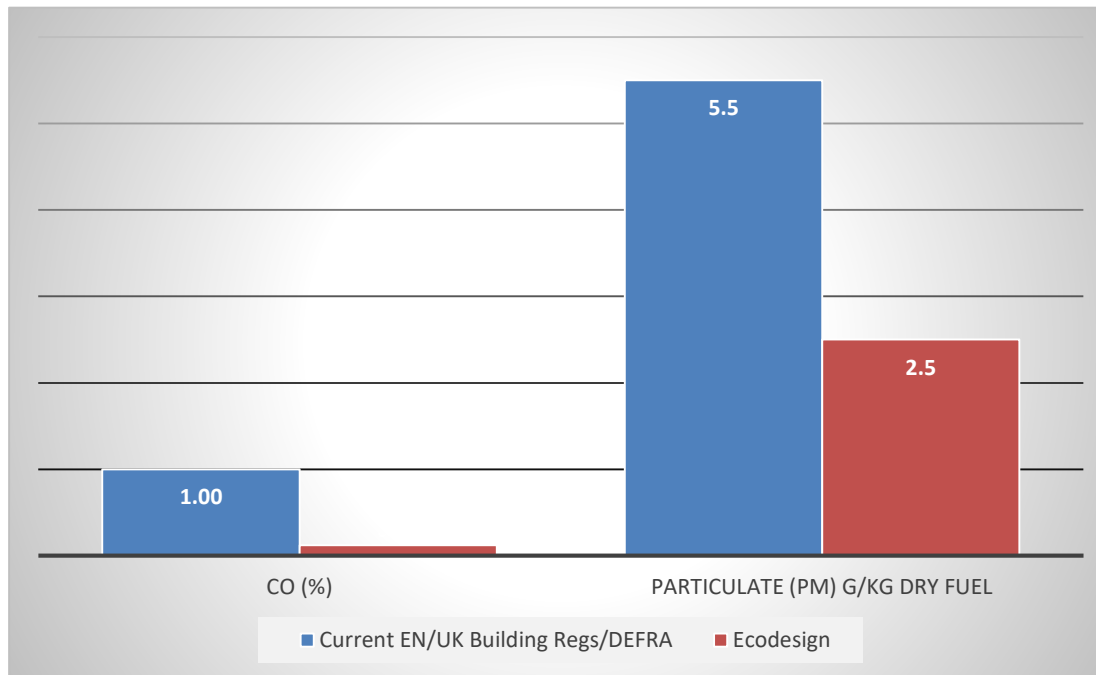


- Ecodesign is the European-wide programme to improve efficiency & lower emissions.
- Covers a wider range of emissions:
 - Particulate Matter (PM_{10} & $PM_{2.5}$), NO_x , OGC (Organic gaseous carbon) and CO.
- Due to come into force in 2022 for solid fuel stoves.
- Applies to the whole of the UK and not just smoke control areas.
- Significant improvement over current CE requirements.

Ecodesign & DEFRA Exemption



- Significant reduction in emission limits.



Emissions	CO (%)	Particulate (PM) g/kg dry fuel
Current EN/UK Building Regs/DEFRA	1.00	5.5
Ecodesign	0.12	2.5
Improvement	88%	55%



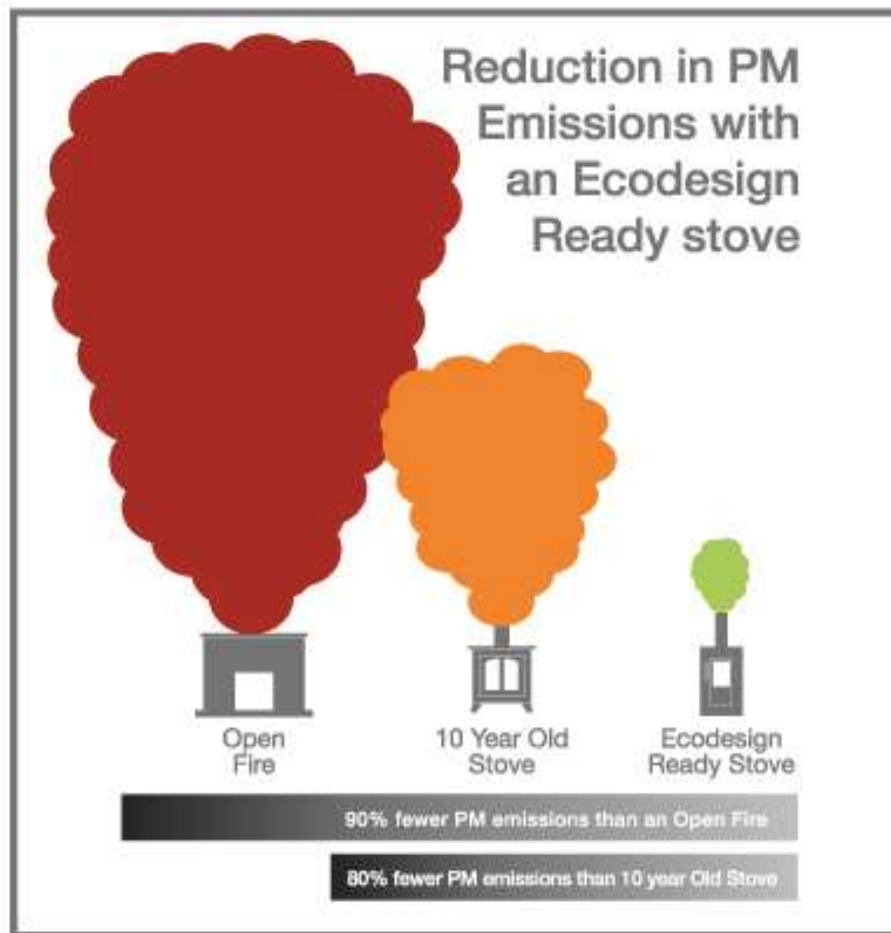
Ecodesign Ready Stoves

- The SIA has taken the initiative.
- Ecodesign Ready stoves
 - Ecodesign Ready stoves will meet Ecodesign in 2022.
 - Ecodesign Ready stoves available now.
 - New models developed from now on will meet the Ecodesign emission limits.
 - From 2020 Main SIA manufacturers will only produce models that satisfy Ecodesign.



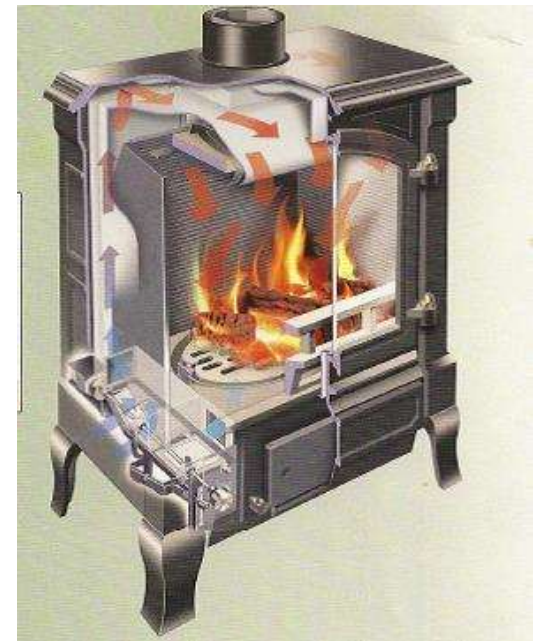
Ecodesign Ready Stoves

- Not all wood burning is the same.



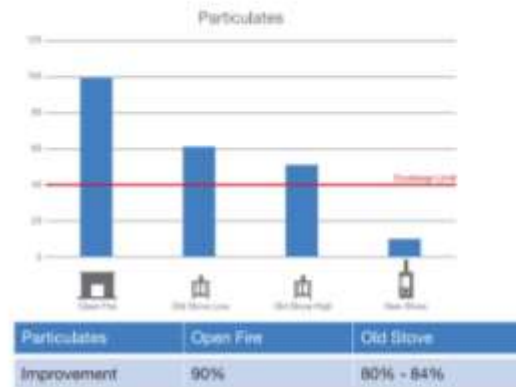
SIA Ecodesign Ready Stoves

- Primary PM from wood burning comes from incomplete combustion.
- SIA Ecodesign Ready stoves are designed to produce fewer emissions by
 - Burning the wood more efficiently and more completely.

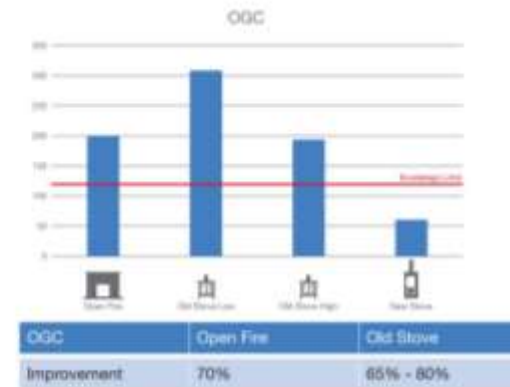


Ecodesign Ready Stoves

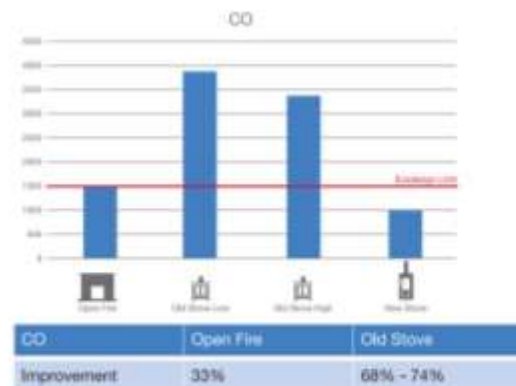
Comparison with Ecodesign Stove



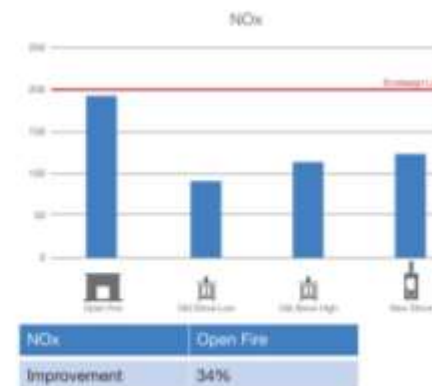
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Comparison with Ecodesign Stove



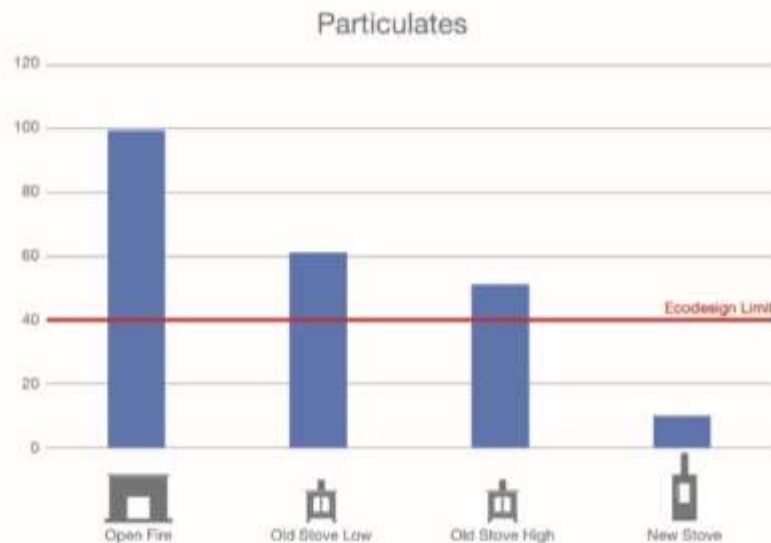
Comparison with Ecodesign Stove



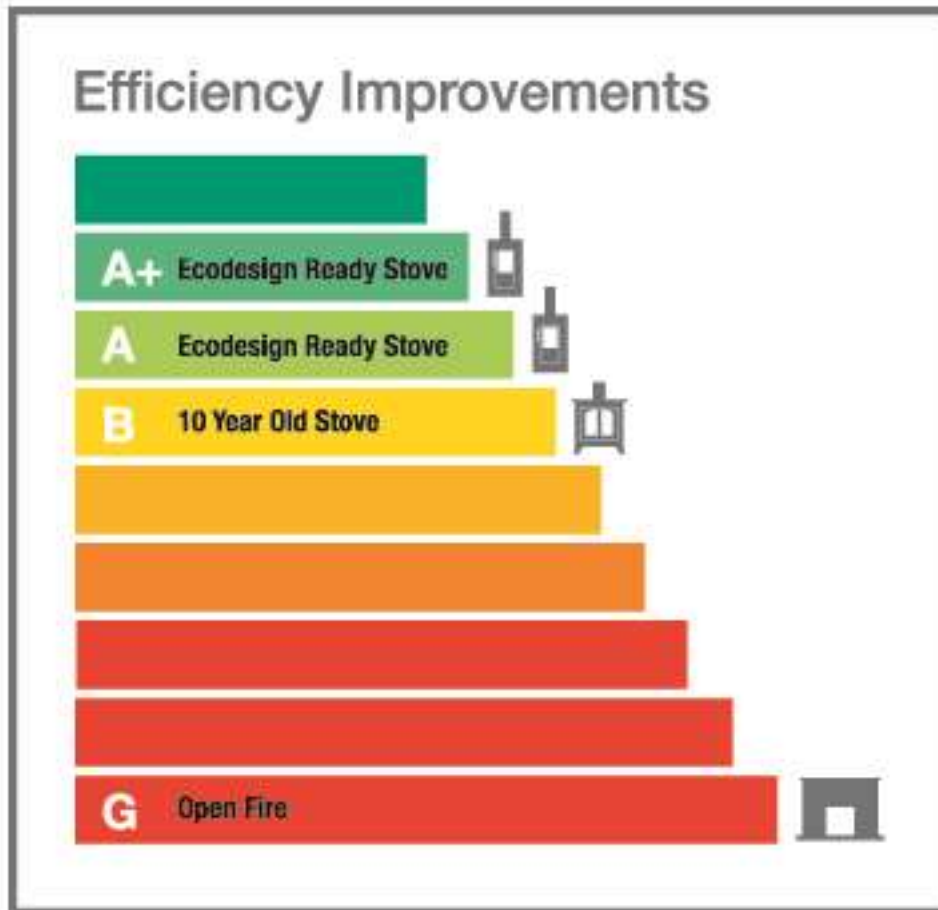
Ecodesign Ready Stoves

- Ecodesign stoves can reduce PM emissions by 90% compared to an open fire and 80% compared to a stove of 10 years ago.

Comparison with Ecodesign Stove



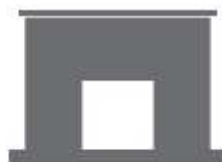
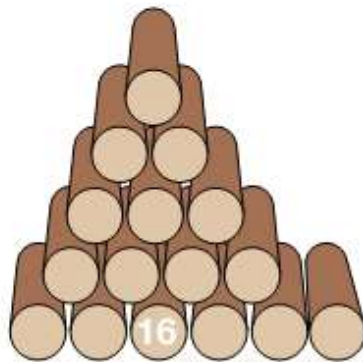
Ecodesign Ready Stoves



Improved efficiency lowers fuel usage and emissions

Ecodesign Ready Stoves

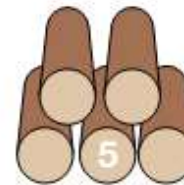
Number of logs required to produce
4kWh of heat over a 5 hour period



Open Fire



Old Stove



New Stove

- Using fewer logs produces fewer emissions.

PM Emissions in London



- The big problem is burning wood on open fires
 - BEIS Domestic Wood Usage survey revealed that 70% of wood burnt is on an open fire.
 - This is the worst way to burn wood from the point of view of heat produced and emissions.

PM Emissions in London



SUPPORTED BY
MAYOR OF LONDON

woodsure
**READY
TO BURN**

If you're planning a home improvement project this spring now could be the perfect time to replace your open fire place with a less polluting wood-burning stove.

The advertisement features a photograph of a woman sitting on a windowsill reading a book, with a wood-burning stove in the foreground. A circular logo with a flame design and the text 'woodsure READY TO BURN' is overlaid on the image. A white banner at the top right of the image says 'SUPPORTED BY MAYOR OF LONDON'. A red banner at the bottom of the image contains the text: 'If you're planning a home improvement project this spring now could be the perfect time to replace your open fire place with a less polluting wood-burning stove.'

The greenest stoves – those marked DEFRA exempt and SIA Ecodesign Ready – have been designed to minimise pollution.

Burning fuel approved by Woodsure's Ready to Burn scheme will also help you minimise pollution.

For more information and for a list of approved appliances visit:

www.hetas.co.uk

www.stoveindustryalliance.com

For more information on the Ready to Burn scheme visit:

www.readytoburn.org





Reducing PM emissions

- As PM emissions have reduced the relative share from wood burning has increased, increasing the focus on wood burning.
- While stoves sales have grown since 2009 the emissions from wood burning have gone down.
- An important driver has been the replacement of open fires and older appliances with Defra exempt stoves. Ecodesign will accelerate the reduction.

Reducing PM Emissions



- Three courses of action:

- Ecodesign Ready Stoves



- Good quality fuel



- User education



- How to best operate the stove

- Burning the right quality of logs

- SIA in consultation with Defra on how to reduce emissions further.





Reducing PM Emissions

- A weakness in Ecodesign is that it only applies to new stoves.
- Action is needed to update existing stock of open fires and older stoves.
- SIA is consulting with Defra on how this can be achieved.
- Ecodesign needs to be monitored and enforced, but it is not clear yet how effectively this will be done.



Ecodesign Ready Stoves

- Part of the solution to PM emissions.
- Offer both PM & CO₂ reduction
- Improving air quality & reducing our carbon footprint.



