

**Decarbonising heat today**

## **Wood Heat Conference Update on Biomass Heat Works Campaign**

Neil Holland, UKPC Board Member & Managing Director, Y Pellets

**21st October 2020**

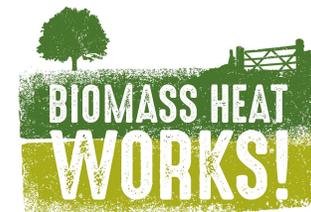


## Communications Focus

- **Launched “Biomass Heat Works” at 2019 WHA Conference with following aims:**
  - **To raise the profile of biomass heat amongst Government and industry stakeholders**
  - **Highlight biomass heat as the no.1 solution for decarbonising the off-gas grid market**
  - **Outline the benefits biomass heat affords to the rural economy**
- **Three main areas of focus in 2020**
  1. **Becoming the voice of the industry, particularly in briefings around the impacts of Covid-19, Brexit, end of RHI**
  2. **Lobbying for the biomass industry’s role in fulfilling CO2 reduction targets and in particular our strengths versus other technologies**
  3. **Affect short term and medium term policy direction by questioning current policy directly and indirectly**



# Voice of an Industry



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1. Briefing document for Ministers (BEIS & International Trade) to understand the industry and how it has been affected
2. Lobbying on “Essential Worker status” and extension of Non-Dom RHI
3. Providing statistics and feedback from an industry perspective on current and future policy discussions
4. Established endorsements from industry bodies such as the NFU



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UK Pellet Council (UKPC)/biomass wood pellet industry follow-up information

#### AGENDA:

1. COVID19 (update and risks) – stock levels, fossil fuel prices, import restrictions, jobs
2. Pellet supply chain update – status and production levels
3. UK wood pellet market overview – current UK production, import routes and demand
4. Longer-term view/objectives – future policy, woodland creation and UK production opportunities

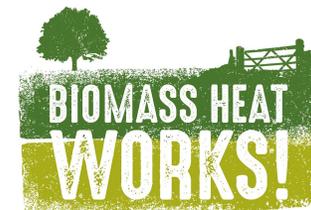
1] COVID19 status: the industry continues to function well as an essential service and we envisage no major difficulties for the next 2-3 months (July/August 2020) due to a) having sufficient pellet stocks to meet customers' needs until summer 2020; b) the 'heating season' coming to a close (most domestic properties and some businesses use less heat over spring/summer months); and, c) winter 2019-20 was relatively mild across Europe therefore supply chains have not been stressed, meaning production facilities have maintained access to feedstock.

Potential risk: current fossil fuel prices (oil), EU and UK sawmills now offline, possible supply risk to essential industries/customers (see below examples); external port restrictions for imported pellets; industry job losses (non-domestic RHI).

Consideration must be given to the biomass supply chain post August 2020 (winter 2020) as many critical industries/customers rely heavily on wood fuel for heating and hot water including:

- **Care homes** – 24/7, all year long requirement eg MMCG Care Homes, Four Seasons Health Care.
- **Supermarkets** –eg Sainsbury's has circa 100 UK stores using approximately 25,000 tonnes of wood pellets annually (see map right) Waitrose, Asda, Tesco also use biomass in UK stores.
- **Hospitals & prisons** – eg HMP Lewes, HMP Guys Marsh, HMP Full Sutton, HMP Maghaberry, Pilgrim Hospital Lincolnshire, Rampton Secure Hospital Nottinghamshire, University Hospital of South Manchester (UHSM), South West Acute Hospital Enniskillen.
- **Agriculture** – eg Bernard Matthews, Moypark (the latter operating approximately 30 farms in England and using between 15-20,000 tonnes of pellets per annum (see map bottom right).





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## Biomass as solution

- Jobs – numbers, rural, comparison with other renewable industries
- Rural Vs Urban – building stock and network capability
- Why Government should remain technology neutral when developing a solution

Up to **46,000**  
bioenergy  
jobs lost

**£2.25 billion**  
biomass  
installations  
lost or stalled

Future  
**UK skills**  
shortages

**Negative impact**  
on the  
rural economy

**Breakdown of**  
successful UK  
supply chains

**Consumer shift**  
back to fossil  
fuel heating



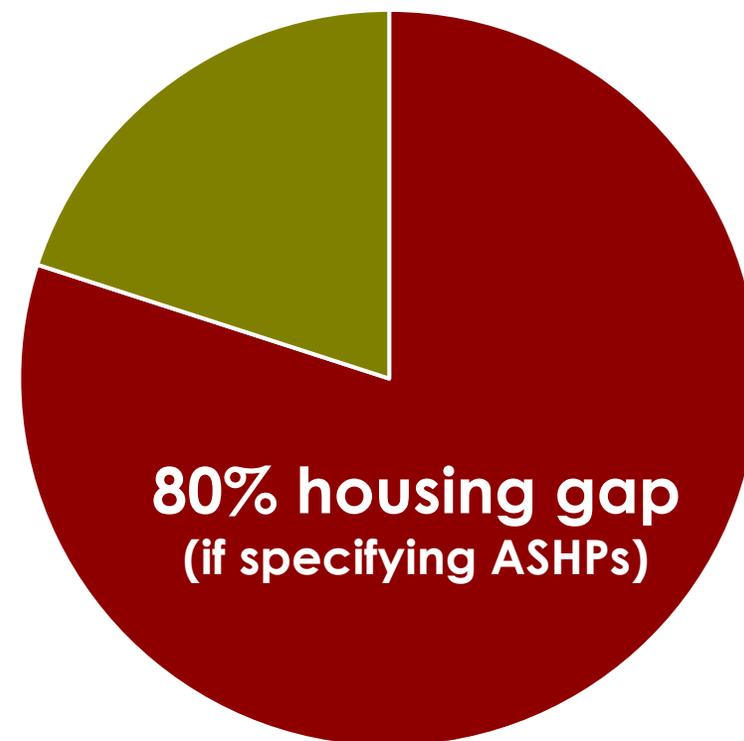
## Clean Heat consultation

**BEIS proposals are primarily focused on small domestic installations (systems of less than 20kW) in urban areas.**

**Air source heat pumps and biomass are specified as 'heat technologies' but heat pumps are only suitable (successful) for new build homes (less than 40 years old). This means:**

**80%** of UK housing stock is not catered for with 30% of those being in rural and off-gas grid areas.

% of UK housing stock not suitable for ground source heat pumps.



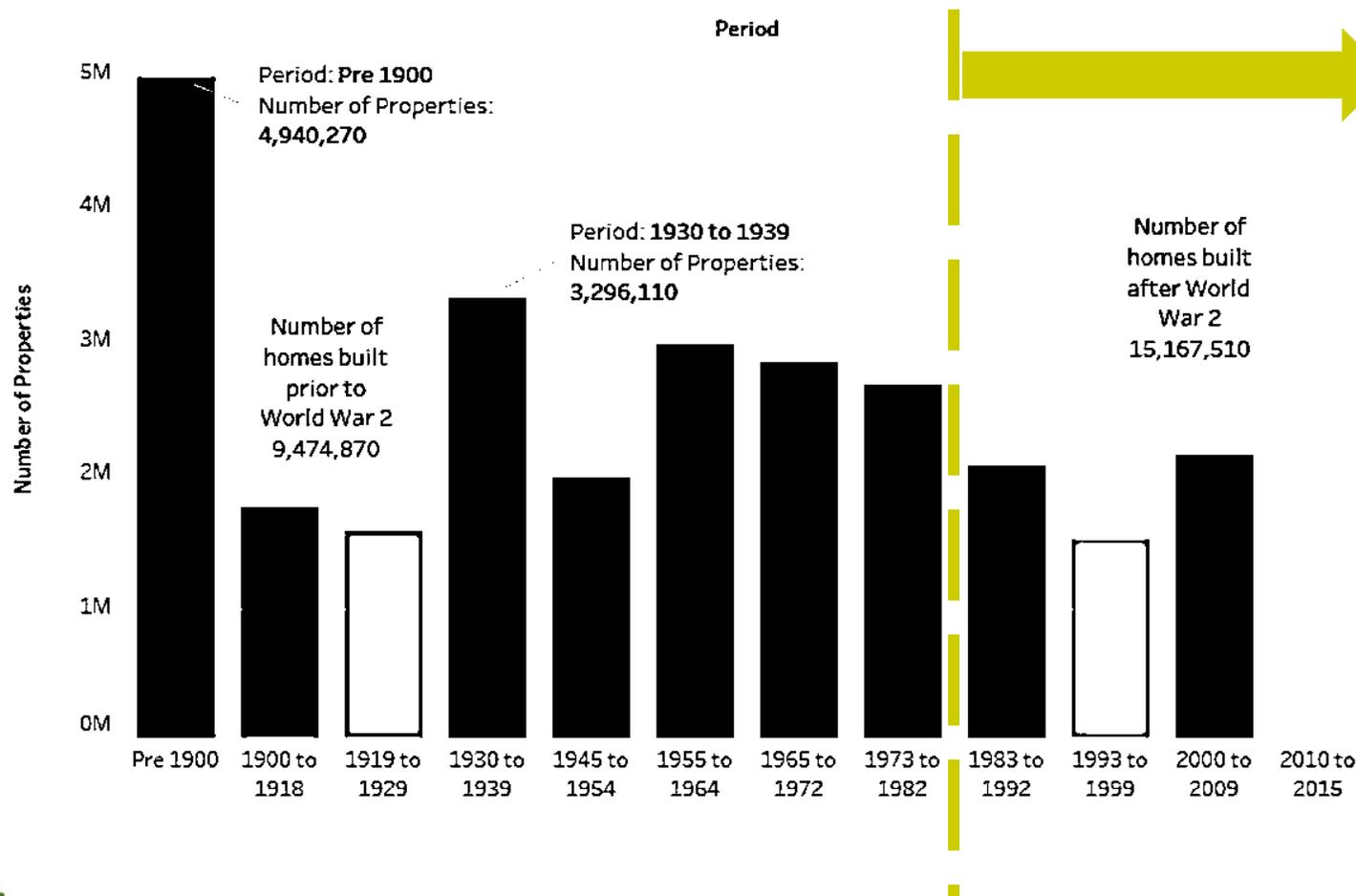
■ Homes not catered for

■ ASHP suitable



# UK housing stock (by age):

Homes in England and Wales by construction period



- Homes built before 1983 are better suited to biomass boiler systems.
  - 75% of homes in England built before 1975
- 26% of new dwellings (post-1980) would spend £6,000 or less to implement EPC-recommended energy improvement measures. 63% of pre-1919 dwellings would spend over £18,000



## Rural suitability: biomass or heat pumps?

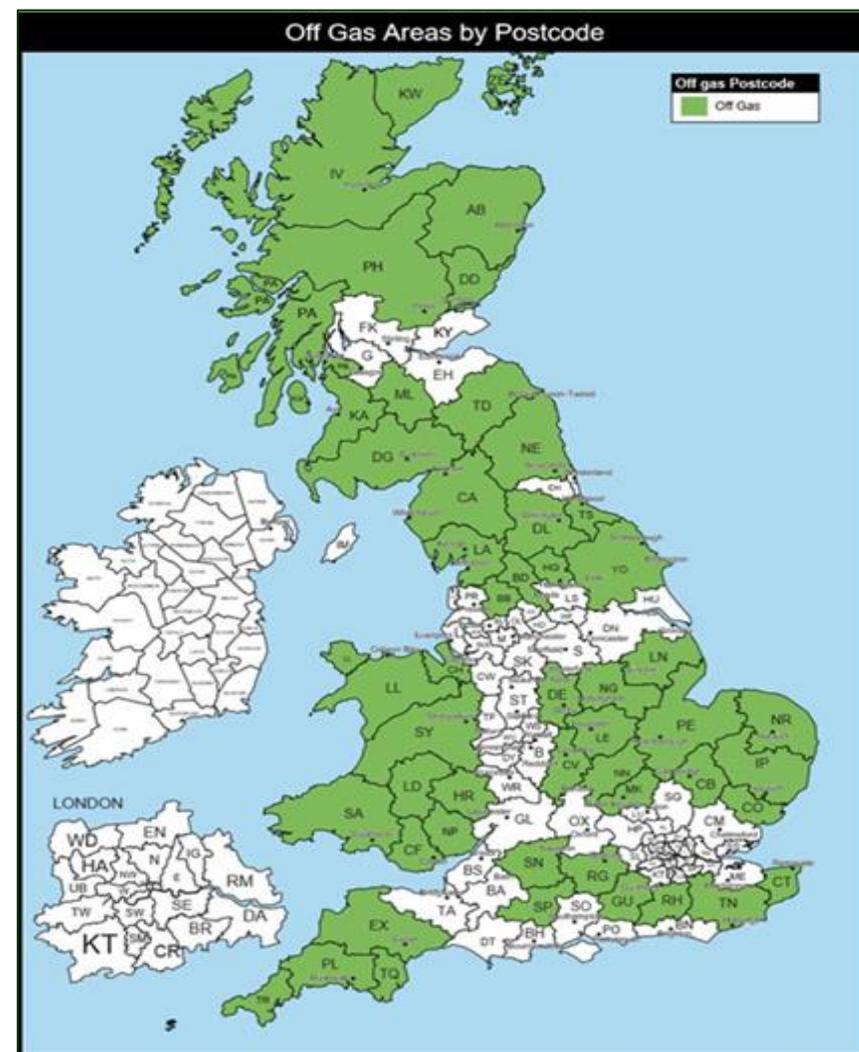
Technology	Retrofit to existing system	Suitable for all building ages	Energy costs in line with fossil fuels	No requirement for grid connection	Supports long term rural jobs
Biomass	✓	✓	✓	✓	✓
Ground source heat pumps	✗	✓	✗	✗	✓
Air source heat pumps	✗	✗	✗	✗	✗

Heat pumps are not suitable for older homes without significant upgrades and will use electricity at X4 the price of fossil fuels (in some instances, requiring grid reinforcement causing connectivity issues).



## Targeted areas for Biomass (highlighted in green)

- Rural/off-gas grid areas cover many constituencies and are a significant part of the UK landscape. They include high numbers of old housing stock (40+ years old).
- **ASHPs CANNOT REPLACE** replace all fossil fuel heating systems. Biomass boilers **CAN**, without major disruption, presenting minimal challenge.



## Clean Heat Strategy; reducing CO2

The Government has chosen ASHP as its 'preferred strategy' for decarbonising heat and the 'best solution' for off-grid heating despite many areas needing network reinforcement costing millions. £100m is set aside to fund 25,000 new installations. Using this methodology, the UK needs to install:

**TWELVE MILLION** new systems

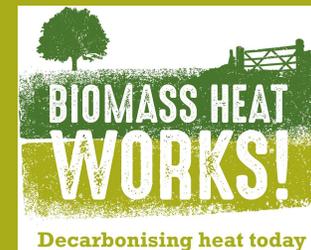
(99.8% more than the current target)\* despite older homes being unable to be heated without substantial improvements.



■ New ASHP systems needed to deliver net zero ■ Maximum delivered by Clean Heat Strategy

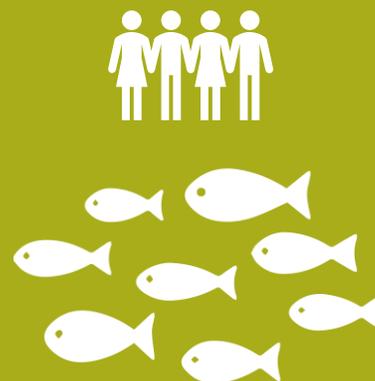
\* ref: IPPR report





Biomass jobs equate to four times that of the UK's fishing industry (11,700 with 2,000 P/T roles) and 14,000 more than the steel industry.

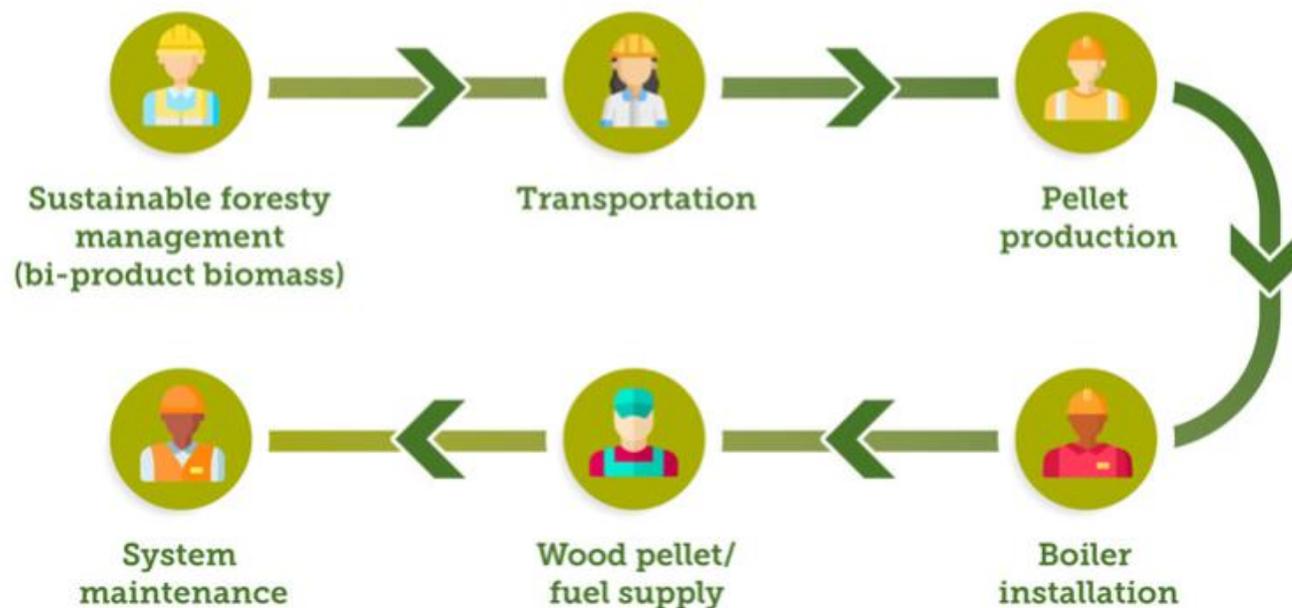
Collectively, the biomass industry contributes £6.5bn annually to the UK economy, seven times the total value of the UK fishing industry.

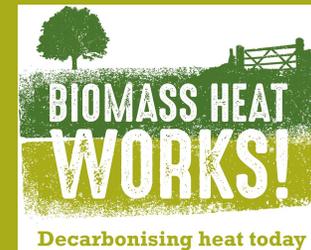


## Industry jobs creation

- Job creation needs to be top of the agenda for UK economy recovery after CV19; biomass has been shown to create **SEVEN TIMES MORE JOBS** than any other renewables technology, especially in rural areas where jobs are most needed, yet biomass is all but being ignored by current government policy.

**1 biomass boiler installation = 10-15 supply chain jobs**





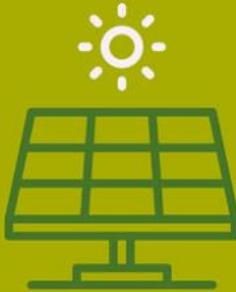
**What are other countries doing to encourage renewable energy usage and reduce the use of fossil fuel?**

# GERMANY:

supporting systems up to 100kW with 30-45% funding for capital investment with customer choosing best technology.

## DEMAND FOR HEATING WITH RENEWABLE ENERGIES IN 2020

SOLAR



30%

BIOMASS



UP TO  
45%

HEAT PUMP



UP TO  
45%

GAS HYBRID



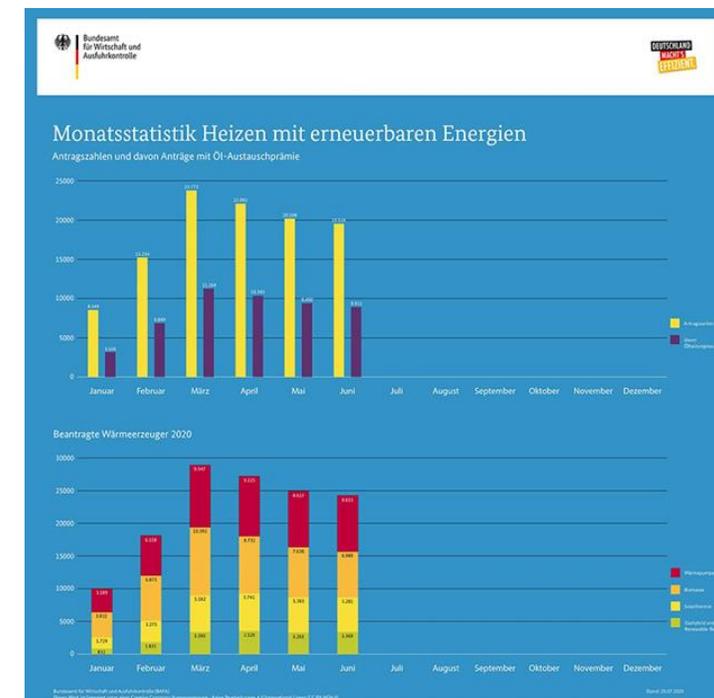
UP TO  
45%

SOURCE: [www.bafa.de/ee](http://www.bafa.de/ee)

REPLACEMENT OF AN OIL HEATER

**Germany: supporting systems up to 100kW with 30-45% funding for capital investment with customer choosing best technology.**

- Wants to encourage a green economy and is putting money directly into SMEs across the country rather than big businesses.
- 125,000 new installations approved during June 2020 (44,453 new biomass installations approved since the start of 2020).
- Germany is on track to achieve in 12 months what the UK has delivered in 10 years with RHI.
- Has vision and commitment demonstrated by €5bn budget and specific CO2 reduction targets of 350,000 tonnes per annum\*\*



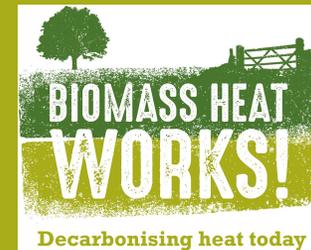
\*\* [https://www.bafa.de/DE/Energie/Heizen mit Erneuerbaren Energien/heizen mit erneuerbaren energien node.html](https://www.bafa.de/DE/Energie/Heizen_mit_Erneuerbaren_Energien/heizen_mit_erneuerbaren_energien_node.html)

**Austria:** sending a clear message to its people (i.e.; “we don’t support fossil fuels and you need to plan for a different future.”)

- €4,000 grant available for new biomass boiler installations - key driver; stop the use of heating oil.
- Majority of buildings very well insulated/energy efficient. Most homes require smaller boilers and very little natural gas usage.
- Strong support for natural environment and the planting/maintenance of forests.

By 2020	By 2021	By 2025	By 2035
The installation of oil in new build properties to be banned	Prohibition of oil heating in the event of heating exchange or retrofit	To enforce mandatory replacement of oil boilers older than 25 years	Ensure the replacement of all remaining oil heaters





**What is missing from or being neglected in UK Government policy**

## What is missing from UK policy?

### Ambition

- Current proposed expenditure **DOES NOT** represent spending for a climate crisis especially when compared to other countries

### Choice

- Government has opted for heat technologies that fit the needs of large energy utilities rather than offering the customers' choice and the best solution for their property

### Clarity

- Clear goals and objectives for CO2 reduction are lacking. Policy needs clear messaging to stop the use of fossil fuels – the UK needs a workable roadmap to net zero

### 'The Stick'

- No incentive exists to improve energy efficiency, increase the use of renewable energy or change consumer habits. The Government is banking on the hope that people "will do the right thing" even if it costs them more!

**...all  
energy  
supply  
has been  
subsidised**



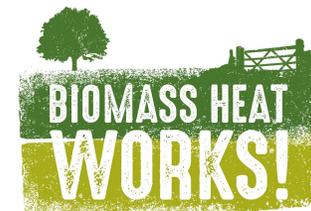
National Grid and natural gas networks were financed, built and privatised by the Government. New developments are paid for via agreed fixed rates of return collected as distribution costs in energy bills



Guaranteed electricity prices offered to Hinkley Point mean that UK consumers will pay £50bn more than the market price for electricity over the lifetime of the project



Consumers pay only 5% VAT on fossil fuels used for heating



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Approx. 16m UK domestic households use natural gas to heat their homes with an average annual spend of **£655.00\***

Current 5% VAT rate for home heating (natural gas) equates to £524m. An unsubsidised 20% VAT rate would equal **£2.096bn per annum**

Increasing VAT by 2.5% per annum would provide Government with an extra **£262m per annum**

## Subsidisation of natural gas users by Government

\* The estimated cost of heating and hot water using gas is calculated using the average annual heat demand for a medium user (12,000 kWh), as calculated by Ofgem, December 2019.



## What can you as an individual do?



### 1. Contact your local MP

- Contact them on impact on local jobs and your business of
  - Not extending Non-Domestic RHI in 2021
  - Focusing on one technology
  - Lack of future policy direction



### 2. Contact Biomass Heat Works campaign for information to support you

- Provide case studies where biomass is the best solution

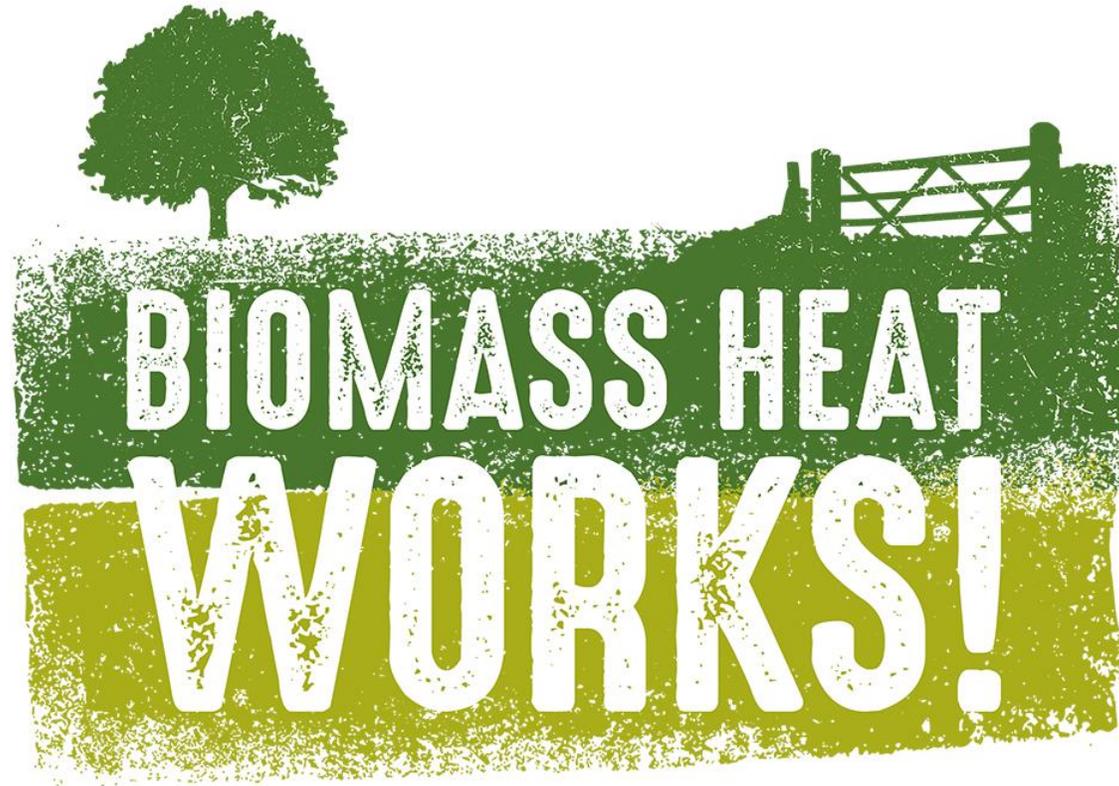


### 3. Use information on Biomass Heat Works website ([www.biomassheatworks.co.uk](http://www.biomassheatworks.co.uk))

- Updated regularly
- Share posts in LinkedIn and Twitter



**Thank you**



**Decarbonising heat today**

**[www.biomassheatworks.co.uk](http://www.biomassheatworks.co.uk)**

