

Introduction:

We have analysed the impact on the fuel poverty rate of moving all households¹ to air source heat pumps under three price scenarios: 2019, October 2022 under the Energy Price Guarantee (EPG) of £2,500, and October 2022 without the EPG (£3,549)².

In this analysis we have assumed all households are suitable to install an air source heat pump (ASHP) with the exception of those heated with coal, biomass, or communal heating (see caveats for a full explanation). [redacted exception no. 10.4 (e)] .

Table 1: [redacted exception no. 10.4 (e)]

Table 2: [redacted exception no. 10.4 (e)]

Table 3: [redacted exception no. 10.4 (e)]

Table 4: [redacted exception no. 10.4 (e)]

Table 5: [redacted exception no. 10.4 (e)]

Results:

[redacted exception no. 10.4 (e)]

Table 6: [redacted exception no. 10.4 (e)]

Table 7: [redacted exception no. 10.4 (e)]

Table 8: [redacted exception no. 10.4 (e)]

[redacted exception no. 10.4 (e)]

Methodology:

[redacted exception no. 10.4 (e)]

Caveats:

This analysis makes the following assumptions:

[redacted exception no. 10.4 (e)]

¹ [redacted exception no. 10.4 (e)]

² [Default tariff cap level: 1 October 2022 to 31 December 2022 | Ofgem](#)

From: [redacted exception no. 11]
Communities Analysis Division
1 March 2021

Minister for Energy, Connectivity and the Islands
Minister for Local Government, Housing and Planning

Background for Deep Dive on Fuel Poverty and Heat Decarbonisation

Introduction

1. As set out in the Climate Change Plan update and draft Heat in Buildings Strategy, there are some tensions between our commitment to decarbonise heating and our fuel poverty aims. The installation of zero emissions heating (in particular heat pumps, but also potentially heat networks) could exacerbate fuel poverty in certain circumstances because zero emissions heating can be more expensive to run than fossil fuel heating, all other things being equal, under present market conditions.
2. At their meeting with officials on the Heat in Buildings Strategy on 21 January, Ministers indicated that they would like to see further analysis and a stronger evidence base on the impact on fuel poverty and for this to feature more prominently in advice on heat in buildings. This paper sets out internal indicative SG analysis on the extent of these tensions. It sets out our estimate of the mitigating impact of addressing energy efficiency in line with our targets, and the extent of the remaining fuel poverty challenge.
3. This analysis summarises the best evidence we currently have available. It is based on a range of modelling approaches undertaken to date and each makes different assumptions about the suitability of different zero carbon systems for different dwelling types as well as relying on current fuel prices. For this reason, it should be treated as providing an indication of likely risk areas which we intend to refine through further work. In addition, none of this work has been published to date and should be treated as for internal use only.

Key Messages

[redacted exception no. 10.4 (e)]

4. Other technologies, such as heat networks, will be required where it is not possible to replace gas with heat pumps (for example, due to space constraints meaning there is no place for a hot water tank). Installing storage heaters would not in general be a suitable alternative since, unlike heat pumps, the relatively higher cost of electricity is not offset by increased heating system efficiency.
5. While running costs may be higher or lower depending on fluctuations in the international oil price, installing heat pumps in oil dwellings which are off the gas grid may be a suitable no-regrets option since there will be fewer alternative zero-emissions solutions (such as heat networks or using hydrogen in the grid) and the near-term carbon impact is relatively high. The draft Heat in Buildings

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Strategy identifies the need to convert the vast majority of these 167,000 homes (covering both fuel and non-fuel poor households) to zero emissions heating by 2030.

[redacted exception no. 10.4 (e)]

Next Steps

6. Policy colleagues anticipate that the following next steps will help to guide our approach to mitigating the risks of decarbonisation to fuel poor households:
 - We will extend our analysis to gain an even better understanding of the landscape of fuel poor and extreme fuel poor households, including further work to develop proxies that can be used to better target support to the particular characteristics of those living in fuel poverty.
 - [redacted exception no. 10.4 (e)]
7. The forthcoming Fuel Poverty Strategy will address these issues, and set out proposals for tackling the other drivers of fuel poverty – low incomes and energy prices.

Recommendation

8. You are asked to note the analysis and suggested next steps provided for discussion at the Deep Dive on 4th March.

[redacted exception no. 11]
Communities Analysis Division
1 March 2021

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Minister for Local Government, Housing and Planning	X				
Minister for Energy, Connectivity and the Islands	X				

DG Communities
DG Economy
Director for Housing and Social Justice
Kersti Berge, Director of Energy and Climate
Catriona McKean
Sue Kearns
[redacted exception no. 11]

Annex A: Further detail of analysis

[redacted exception no. 10.4 (e)]