



February 2021

# POSITIONING PAPER: ADDRESSING THE DISTRIBUTIONAL IMPACTS OF A CARBON CHARGE

## Public Opinion

Our research has shown that the British public are supportive of levying a carbon tax on big polluters and conscious of the positive impacts this could bring, with 70% of the public supporting a carbon tax that makes polluters pay for the greenhouse gases they emit.<sup>1</sup> However, they want to ensure that tax increases are fair, with 68% of the public believing that any plan for a carbon tax must ensure lower income households are protected from the impacts of price increases.

## Managing Cost Impacts

The Government has a responsibility to ensure that the burden of decarbonisation costs does not fall on those who can least afford them - for example low income and 'fuel poor' households.

There are several ways that this can be achieved, predominantly through strategic use of carbon tax revenues which has been shown to amplify carbon saving impacts.<sup>2</sup> This approach has a high volume of public support, with 45% supporting the use of carbon tax revenues to create green jobs and retain workforces, and 44% supporting using the funds to invest in low-carbon energy, making these the first and second most popular use of revenues, ahead of investing in the NHS.<sup>3</sup>

Whilst some of the revenue from a carbon tax can be used to mitigate cost impacts on low income households, this is a relatively short-term solution. Investment in scaling access to alternative solutions must be prioritised this decade - especially when it comes to heating, and supporting those who face the biggest barriers to action.<sup>4</sup>

## Revenue Redistribution

- In most countries that have a significant carbon tax, at least some of the revenue raised is redistributed to households in order to cushion them from the cost impacts of associated price increases. For example, whilst the majority of the revenue from the Canadian Federal carbon charge is given back to households, Ireland has taken a more targeted approach - using a proportion of carbon tax revenues to increase social welfare payments,<sup>5</sup> as well as to invest in the decarbonisation of agriculture.<sup>6</sup>
- We believe that a proportion of UK carbon tax revenues should be redistributed to low-income and fuel poor households to support them through the net zero transition; this is an important and equitable measure for offsetting the cost burden of the tax and other decarbonisation measures in the short term.

- However, returning the majority of revenues back to all households is an inefficient use of funds; it relies solely on the price impact to drive down emissions, and in this context carbon prices would have to be unrealistically high to drive change.<sup>7</sup>
- The UK Government - in their response to the pandemic - has set a precedent for increasing social welfare payments via Universal Credit, by increasing the standard allowance rate for one year.<sup>8</sup> This suggests that a similar approach could be taken to redistribute carbon tax revenues, with these ideally being issued as direct payments rather than reductions in energy bills, which does little to change (or reduce) energy consumption behaviour.
- This proposal has received public support but should not be presented as a solution in perpetuity; over the longer term payments may be phased out as savings from energy efficiency upgrades and energy switching come into fruition.<sup>9</sup>

### Investment in alternatives

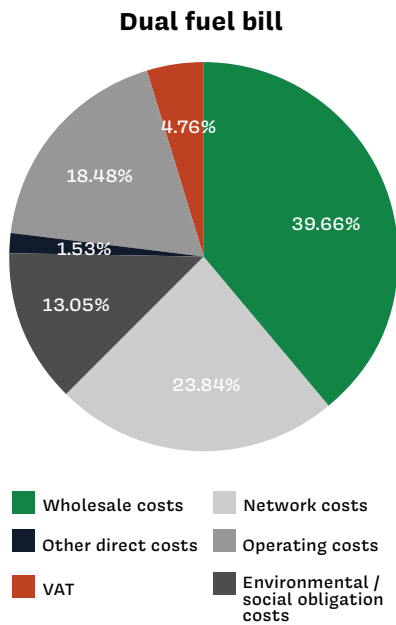
- To support low-income and fuel poor households through the net zero transition, the Government must invest heavily in the decarbonisation of heat, providing fit-for-purpose energy efficiency upgrades for low-income households and those with the EPC ratings below Band C.<sup>10</sup>
- Scaling investment in energy efficiency and switching measures this decade will not only lead to savings over the longer term - and help to mitigate the impacts of carbon pricing costs<sup>11</sup> - but it will also drive a reduction in energy usage, as well as supporting switching towards lower-carbon alternatives (i.e heat pumps).
- Given that energy efficiency upgrades have high up-front costs - and the cost savings impacts are felt over the longer term - the Government must front-load support for energy efficiency improvements, and put legal provisions in place to ensure landlords have a responsibility to implement them. This will help to address the potentially regressive impacts of energy efficiency investments on those living in rented accommodation, who have little control over their heating inputs.
- This level of investment may require the Government to borrow against future carbon tax revenues - for example through the issuance of a bond, raised on future revenue, to pre-seed funding for efficiency and infrastructure programmes. For example, the future revenue from the London congestion charge has been used by Transport for London to securitise a bond to bring forward funds to invest in transport projects.<sup>12</sup>
- As well as part-subsidising the costs of energy efficiency upgrades and heat pump installation, the Government should also increase provision of financial support for electric vehicle uptake to help incentivise consumers to switch to low carbon transport; the upfront cost<sup>13</sup> of which is currently acting as a barrier towards uptake.<sup>14</sup>

## Energy Bill Reform

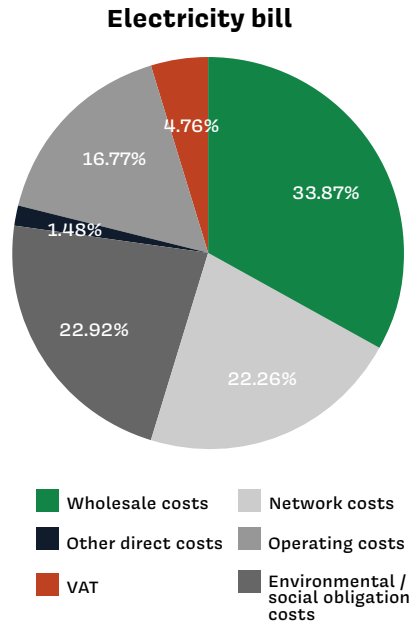
- As it stands, the policy costs of decarbonisation fall disproportionately on electricity bills (22.92% of total energy bills) whilst gas has been relatively left alone (1.86% of total energy bill).<sup>15</sup> Not only does this mean that consumers are bearing a large proportion of energy decarbonisation costs, but it is also acting as a barrier towards switching.<sup>16</sup>
- In order to ensure future policy costs (for example contracts for difference for CCUS and hydrogen) do not fall on consumers, we recommend that future decarbonisation policy costs are placed into general taxation, rather than as obligations on companies who can pass the costs through to consumers.
- In the meantime, we also recommend balancing out the weight of existing policy costs away from electricity and across different heating types, to lower the costs of electrification and remove one of the core barriers towards switching.



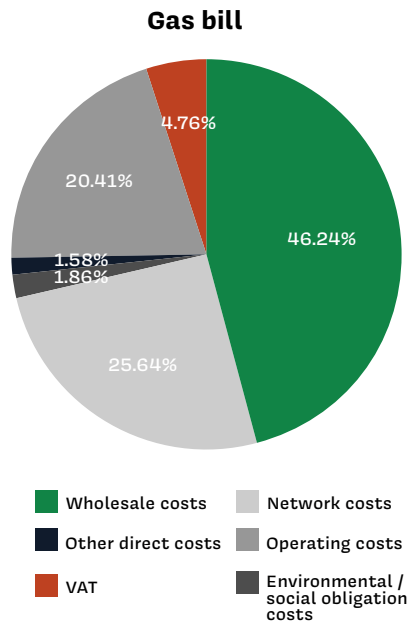
**FIG 1: BREAKDOWN OF AVERAGE GAS AND ELECTRICITY BILLS**



Source: Ofgem (2021). Understand your gas and electricity bills.

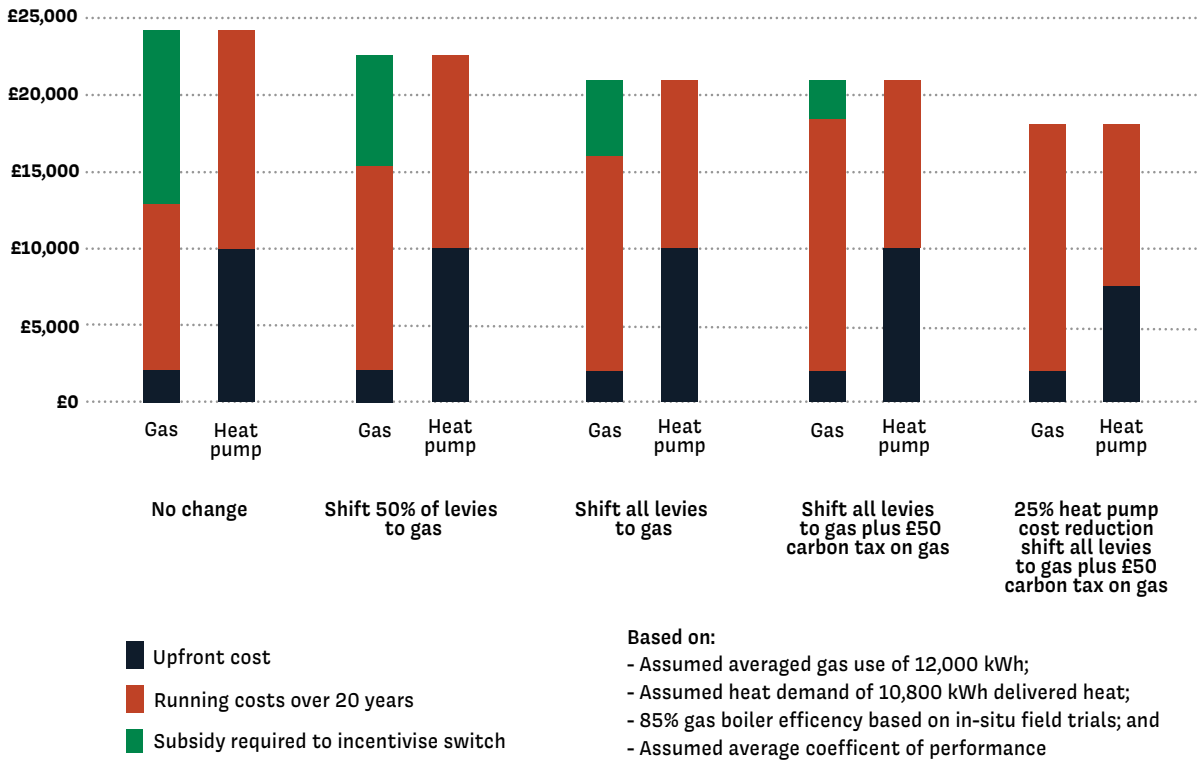


Source: Ofgem (2021). Understand your gas and electricity bills.



Source: Ofgem (2021). Understand your gas and electricity bills.

**FIG 2: TOTAL COST OF OWNERSHIP (MAINTENANCE NOT INCLUDED) WITH CURRENT AVERAGE ELECTRICITY PRICES<sup>17</sup>**



## Endnotes

<sup>1</sup> Research conducted by Opinium from February 9th to 11th, 2021, surveying 2,000 UK adults.

<sup>2</sup> A study based on UK household electricity prices compared the carbon-saving impact of a carbon price increase with the carbon saving impact of a price increase and investment of the revenues generated into an effective energy efficiency programme. It found that the reinvestment of the revenues generated up to 9 x more carbon savings than the price alone. Source: Cowart, R., Bayer, E., Keay-Bright, S., and Lees, E. (2015). Carbon caps and efficiency resources: Launching a “virtuous circle” for Europe. Brussels, Belgium: Regulatory Assistance Project. Retrieved from [here](#).

<sup>3</sup> Research conducted by Opinium from February 9th to 11th, 2021, surveying 2,000 UK adults.

<sup>4</sup> Evidence suggests that low-income consumers are less likely to switch suppliers than high-income consumers. A UK survey found 20% of UK households on low incomes (less than £18K) had switched in the period 2013-14 vs 36% of households on higher incomes (£36K+). 39% on lower incomes had never switched, vs 29% on higher incomes. Source: UK Competition and Markets Authority survey data summarised in: Corfe, S., et al (Social Marketing Foundation), 2018.

<sup>5</sup> Irish Times article (2020). Available [here](#).

<sup>6</sup> Irish Farmers Journal article (2021). Available [here](#).

<sup>7</sup> Sunderland et al (2020). Equity in the Energy Transition. Available [here](#).

<sup>8</sup> Understanding Universal Credit Website. Available [here](#).

<sup>9</sup> In the UK’s fuel poverty support package, of an annual budget of almost £3 billion, only just over 20% is dedicated to energy efficiency measures. The remaining almost 80% is dedicated to income and price support and must be committed year-on-year to sustain the same level of benefit. This should be taken into

<sup>10</sup> For example, in France they invest part of the revenue from the EU ETS into the [Habiter Mieux](#) programme which funds renovation for low-income and energy-poor households. Other examples of ring fencing new tax revenues for low-income and energy-poor households and clean energy transition programmes come from from Ireland and Luxembourg (Source: Morgan, S. (Euractiv), 2019. )

<sup>11</sup> LSE & the Grantham institute found that the cost impacts of an economy-wide carbon charge (£50 in 2020 reaching £75 by 2030) can be negated in large part by implementing energy efficiency improvements and low-carbon heating (including heat pump installation). As well as driving electrification, this will also result in a reduction in energy usage - which could reduce gas emissions by 9% and electricity emissions by 43% by 2030. From: Burke et al (2020): Distributional Impacts of a Carbon Tax. Available [here](#).

<sup>12</sup> Sunderland et al (2020). Equity in the Energy Transition. Available [here](#).

<sup>13</sup> In reality, lifetime ownership costs of an EV are lower (£25,289 with plug-in grant) than petrol cars (£26,134), but this is not yet widely understood. Source: Energy Systems Catapult (2020). Ending the sale of new petrol, diesel and hybrid cars and vans: consultation response.

<sup>14</sup> Public First (2020). Green Recovery. P=2000. The highest barrier towards electric vehicle purchase was cost (53%) followed by inconvenience of charging (33%). Available [here](#).

## Endnotes

<sup>15</sup> Ofgem. Available [here](#).

<sup>16</sup> Public First (2021). Tax rises after Coronavirus. P = 2000. 88% of those surveyed had never tried to switch from gas to electricity. The main barrier towards switching was cost - 52% said 'it is too expensive' - and disruption - 27% said it 'requires too much physical work to be done in my home.' Available via [Public First](#).

<sup>17</sup> Lowes, R, Rosenow, J and Guertler, P (2021). Getting on track to net zero: A policy package for a heat pump mass market in the UK. Available [here](#).