Getting the BUS rolling: Unlocking the potential of the Boiler Upgrade Scheme

The first year of the Boiler Upgrade Scheme (BUS) has seen lower than anticipated uptake - with only about half of the first year's £150 million budget, which subsidises the cost of heat pump installation, claimed. With a first-year underspend of £90 million, how can the Department for Energy Security and Net Zero (DESNZ) improve the BUS and help it deliver a further £300 million of budget over the next two years?

The BUS landed amongst historically high electricity prices, a cost-of-living squeeze for households across the UK, three prime ministers with conflicting energy policy, and a media backdrop of widespread misinformation about heat pumps. Given this context and considering that domestic heat pumps are still a relatively novel technology to many consumers in the UK, perhaps supporting over 11,000 British households' transition to clean heat in 12 months isn't such a flop after all. The scheme also suffers from poor public awareness, and a 7-month delay to the launch of the online installer portal, which slowed down initial delivery.

The BUS offers grants of £5,000 for air source heat pump (ASHP) installation and £6,000 for ground source heat pumps (GSHPs) to help reduce the upfront cost of the installation. There is a case for grant uplifts, along with other scheme amendments and associated policy support. In the government response to the original BUS consultation, government stated their intent to *"review grant levels on a regular basis and maintain the right to adjust these in response to market changes or if uptake differs substantially from the projected range"*[1]. The DESNZ Secretary of State has the legislative power to do this without needing to go back to Parliament, with a consultation period.

So what options are there for grant level uplift?

- **A rural uplift**. One of the most talked about potential amendments to the BUS would be an increase in the grant level available to rural households. These homes typically have higher upfront retrofit costs as they are larger, leakier,

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026446/clean-heat-grant-government-response.pdf

detached properties. This type of uplift has been deployed successfully under the Home Energy Scotland grant.

- **Oil and Coal Displacement**. Oil burners represented 22% of fossil fuel heating system replacement, and coal burners just 1%. However, these systems produce 10% and 16% more carbon than gas boilers respectively. If these relative emissions percentages were reflected as a 10% and 16% uplift, it would give an important additional incentive to move to clean heat and tackle the heating systems that emit the most carbon. This would equate to an extra £500 for oil burner replacement and £800 for coal.
- **Ground Source Heat Pumps**. GSHPs have higher upfront costs due to the need to install a ground array. However, the technology offers greater efficiencies than other heating technologies and notably longer lifespans, with the ground array lasting many decades, analogous to the gas network. The Renewable Heat Incentive (RHI) recognised these benefits and higher upfront costs, providing payments typically in the region of £10,000 to £20,000 over seven years and even allowing blending of funding between the RHI and ECO schemes. Consequently, GSHPs have gone from 13% of installations under the RHI to just 2% under the BUS. A grant uplift to around £10,000 would likely see a marked increase in deployment. In the longer-term, Government could consider a bespoke grant measure or scheme.

How else can the scheme be improved?

- **Increased and tailored advertising and marketing.** A House of Lords Inquiry[2] into the BUS found that initial advertising of the scheme had been poor, with active promotion and marketing not beginning until February 2023 (nine months late). While there has been an improvement, many in industry would argue it still isn't anywhere near enough, and consumer awareness of the scheme remains low. Marketing for the BUS should also be tailored to different areas. For example, in urban areas where uptake has been low an advertising campaign focused on the zero-emission air quality benefits of heat pumps could be more effective. Gas boilers can be responsible for 20% of air pollution in UK

[2] https://committees.parliament.uk/committee/515/environment-and-climate-change-committee/news/186300/the-boiler-upgrade-scheme-is-failing-to-deliver-says-lords-committee/

cities, damaging people's health and presenting a serious challenge to meeting legally binding air quality improvement targets.

- **Consumer advice**. The House of Lords inquiry also noted that the current process of installing a heat pump can be confusing for many households who currently do not know where to go for trusted information and advice when installing an unfamiliar technology. A free, impartial, tailored advice service would provide all households a simple customer journey with end-to-end support throughout the process. This would give households the confidence to install a heat pump in their homes, as already exists in Scotland and France.
- **Increase or remove size limits for GSHP shared loops**. The capacity limit for new heating systems under the BUS is 45kWH, which is appropriate for individual air source and ground source heat pumps. However, this is a real constraint on shared ground loop systems, with only the very smallest (about 10 small homes) being in scope of this limit. Increasing it, or even removing it could be a technically sensible way of increasing uptake from the disappointing first year tally of 9 installations.

What adjacent policy and regulation will support the BUS?

- **Small, impactful planning regulation changes around heat pump installation**. This would remove hassle barriers which are currently stalling installation by up to 10 weeks and which can add an unnecessary level of bureaucracy to the BUS application. The government should i) raise the sound threshold for planning permission and set a nationwide standard; ii) remove the requirement for heat pumps to be situated 1m from a property boundary; iii) remove size limitations for outdoor heat pump units.
- **Move forward with the Clean Heat Market Mechanism**. This policy will place an obligation on heating system manufacturers to ensure high standard installation of heat pumps as a proportion of their total fossil fuel system sales. This supply side incentive and stimulus will be a huge boost for the BUS.
- **Lower electricity costs**. To improve the relative running costs of heat pumps compared to gas boilers, government should permanently shift green policy costs off electricity bills. This is fair as clean electricity has shouldered these levies since their inception and moving them onto general taxation or gas bills

(or a combination of both, and/or in degrees over time, and with fuel poverty considerations) will benefit all consumers who will enjoy lower electricity bills. There are also longer-term reforms required to decouple the price of electricity from the cost of fossil gas, via the review of electricity market arrangements.

- **Reform Energy Performance Certificates (EPCs)**. Reviewing and amending the EPC and its underlying assessments will benefit BUS uptake as at present the certificates often penalise heat pumps if installed, when the opposite needs to be true. Heat pumps have a lot to offer beyond just high efficiency, they offer a flexibility element that fossil fuel heating systems just can't, for instance. These benefits, and more, need to stack up in heat pumps favour under the future EPC system.
- **Training grants**. Building a workforce to install heat pumps at scale, and across the country, is an industry and policy priority. DESNZ should increase the available funding through the Heat Pump Training Grant.
- **Green finance**. One of the greatest challenges for many households in switching to a heat pump is the upfront cost, even with the BUS grant secured. Low interest, longer term green loans would provide a pathway to market for a huge number of consumers, with a potential role for the UK Infrastructure Bank.

The BUS has already spared the climate 17,000 tonnes of CO2 in its inaugural year, as Nesta quantifies, equivalent to the emissions of 55,000 people flying from London to New York[3]. But unlocking the BUS' full potential needs to be a nationwide policy priority. Without it, we won't see 600,000 heat pumps being installed per year by 2028, and the country won't enjoy the environmental and economic benefits the scheme can deliver.

[3] https://www.nesta.org.uk/press-release/boiler-upgrade-scheme-saves-17000-tonnes-of-carbon-emissions-in-first-year-new-analysis-finds/#:~:text=The%20Boiler%20Upgrade%20Scheme%20(BUS,heating%20systems%20like%20gas%20boilers.