Planning Statement in support of the installation of an Air Source Heat Pump

This planning application seeks permission for the installation of an Air Source Heat Pump (ASHP) on the property. **ASHPs are a key component of the UK government's strategy to achieve net-zero carbon emissions.** They operate by extracting heat from the outside air and transferring it indoors, even in temperatures below freezing. This technology provides a highly efficient and sustainable alternative to traditional fossil fuel-based heating systems, significantly reducing carbon emissions and helping to combat climate change.

The Government has recently updated the National Planning Policy Framework to support low carbon technologies. Section CC2 : Mitigation of Climate Change paragraph 2 states "**Substantial weight should be given to the benefits of improving the energy efficiency of existing buildings and/or drawing energy from district heat networks, renewable and low carbon sources (including through the installation of heat pumps and solar panels where these do not already benefit from permitted development rights) where this would be achieved through proposals for development."** This reflects the growing urgency of addressing climate change through planning policy. It requires that proposals for energy efficiency and low-carbon technologies are given the utmost priority while balancing local and environmental concerns. This approach supports the UK's commitment to achieving net-zero carbon emissions without disregarding other important planning factors.

Replacing a gas boiler with an air source heat pump dramatically reduces a household's carbon footprint. Heat pumps are around four times more efficient than gas boilers, meaning an instant 75% reduction in carbon emissions for customers. Running the heat pump on green electricity further reduces emissions. **A typical terrace house can cut its CO2 emissions by 1.5 tons per year by replacing its gas boiler with an air source heat pump.** Using green energy to power the heat pump makes the emissions reduction even greater. Octopus offers a variety of tariffs specifically designed for heat pumps. Additionally, air source heat pumps last twice as long as gas boilers and require less maintenance.

Obviously an ASHP replaces a boiler. Even high-efficiency gas boilers emit substantial amounts of CO_2, with typical **residential boilers producing several tons of CO_2 annually**. As well as this, unless they are well maintained they will also release Methane, a potent greenhouse gas, trapping heat in the atmosphere 25-80 times more effectively than CO_2. Combustion in gas boilers also releases gases **harmful to human health** and air quality: Nitrogen Oxides form during the high-temperature combustion process when nitrogen in the air reacts with oxygen. These contain both Nitric oxide and Nitrogen dioxide which are harmful to **respiratory health**, causing issues like asthma and bronchitis and play a role in acid rain and environmental degradation.



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Air Source Heat Pumps are **vital to transitioning** to a low-carbon future, as they address climate change, energy security, and economic sustainability. ASHPs bolster **energy security** by decreasing reliance on fossil fuels, integrating well with renewable energy sources, and reducing peak energy demand, which makes the overall energy system more resilient. ASHPs are ideal for long-term energy plans that prioritize **sustainability and self-sufficiency**, making them a key component of future heating systems that are both secure and low-carbon.

Air Source Heat Pumps also help with **energy equity**. Replacing a boiler can cost as little as £500 with the BUS grant and the lifetime cost of running an ASHP could potentially be £10,000 less than a boiler over its lifetime. By fostering **green job creation**, ASHP deployment delivers widespread socio-economic benefits alongside substantial environmental progress.

There is also a lot of **misinformation around noise levels** of ASHPs, generally stemming from bad installations. It's obviously important that ASHP's don't present a noise nuisance but given their actual noise output this is highly unlikely. We already do everything we can to supply the quietest heat pump possible. This is calculated as part of the survey as it's important that the supplied heat pump can provide enough heat. As such, we're **unable to supply a smaller heat pump**. Also remember that the A rated sound power level of the heat pump is not its usual operating noise and only occurs intermittently, usually **less than 5%** of the time, for example when it's really cold or during the disinfection or hot water cycle.

As to concerns about the noise from multiple heat pumps, Nesta - the UK's innovation agency for social good, commissioned a report into the effect of multiple heat pumps in an area. It concluded that "Even under the most unfavourable assumptions, we did not find a significant increase in noise levels from multiple heat pumps. The cumulative noise impact of multiple ASHP installations in a high-density neighbourhood would **in no way be distinguishable** from that of a nearby single air source heat pump installed within MCS guidelines."

"We as an industry need to (...) embrace the low level 'purr' of low carbon heating systems. The sound of ASHPs is part of the future, let's make sure we don't confuse the positive low-level sound of an essential appliance with an annoying source of noise."

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In conclusion, the installation of an Air Source Heat Pump on this property aligns with strategies both local and national for achieving net-zero carbon emissions. **ASHPs offer a sustainable and efficient alternative to traditional heating systems, reducing carbon footprint, enhancing energy security, and promoting energy equity and green jobs**. We respectfully urge you to consider these significant benefits and approve this application, contributing to a greener and more sustainable future for everybody.

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