

# Welcome outdoors



## Air source heat pump

£10,200

Cost (will vary by property)

£860

Savings per year

4240kg

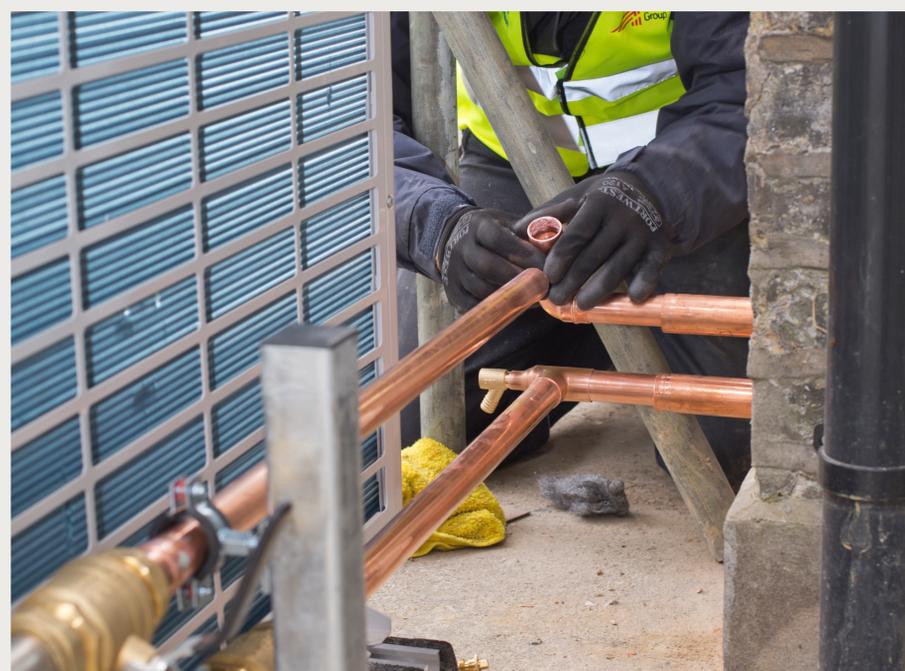
CO<sub>2</sub> savings

Keeping a house warm and cosy during the cold winter months is something many of us take for granted, but not only are most properties dependent on fossil fuels, many people also have concerns about affordability.

We knew we wanted an air source heat pump, in simple terms, it is the opposite of a domestic freezer. The unit sits outside the property and harnesses heat from the outside air and pumps that into the central heating system to keep the property warm. It even works at temperatures as low as **-15°**.

The Vaillant unit uses a small amount of electricity to power the system, which is typically sourced from the grid. However, at this property, this is supplied by solar PV panels and battery storage, so the system is entirely sustainable. It is also versatile and can be used alongside radiators and underfloor heating systems, and has an energy **efficiency rating of A+++**.

Although air source heat pumps are installed in a similar fashion to a traditional gas central heating system, new radiators were required throughout the property in order to optimise the effect of the heating.



Installing a Vaillant aroTherm heat pump.

In accordance with government guidance on liveable noise and disturbance, we installed one of the quietest air source heat pumps on the market.

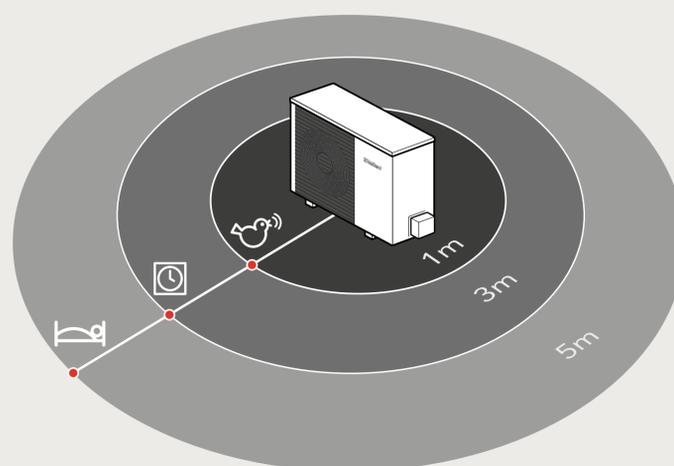
The Vaillant model has a Quiet Mark certification and operates at 54dB. However, the noise level reduces down to 32dB when 5m away from the unit, a figure that declines the further you are away.

Careful positioning ensured that the impact on the neighbours was minimal, while the positioning of fences also helped to soften the noise impact.

 46dB(A)

 36dB(A)

 32dB(A)



 Aston Group



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[gov.uk/ecohome](http://gov.uk/ecohome)



 Waltham Forest