

Dispelling myths around heat pumps

The story

An elderly resident approached Lincs 4 Warmer Homes in early December. They had recently moved into their property on the outskirts of Lincoln, after moving from the rural area of Fenton.

The property's only source of heating was an underfloor heating system that hadn't been working since they moved into the property in September 2023. The resident was relying on a small portable ceramic heater to heat the house. The resident was downsizing due to only needing premises for herself.

The property is a semi-detached bungalow, located on the suburban Birchwood estate on the outskirts of Lincoln.

This case falls into both "hard-to-treat" and "hard-to-reach". This is because the house had no existing central heating system and would require large-scale work to implement one. The resident is elderly and vulnerable to low temperatures.

The building was built in the early 80's, estimated 1984. The property was insulated well with 300 mm of loft insulation and an assumed filled cavity wall. The resident stated that the property originally had old, double-glazed windows which had likely not been replaced in a long time. Hence, she self-funded new double-glazed windows.

Opportunities

The EPC of this property was an E with a score of 43. The areas of improvement would be insulating the party wall, floor, hot water cylinder, installing high retention storage heaters, solar water heating and installing solar photovoltaic panels with a 2.5kWp system. This would increase the property to an A with a 94 score. Based on EPC data the property currently produces 2.9 tonnes of carbon dioxide. If these improvements were made it would result in a reduction to 1.2 tonnes.



Resident feedback

"Great service right from the very beginning, contact with YES Energy took a while but as soon as they said they were ready to install it only took a couple of weeks and kept me informed all of the time. The installers were very friendly and explained a lot of the process and they were very clean workmen."

Approach

The method the team used in this case was to utilise the Home Upgrade Grant 2 funding, as the resident was a prime candidate and in need of a better system than what she currently had.

Fixing the underfloor heating had a large cost to repair which the customer couldn't afford. After talking to the resident, they expressed some potential concerns around an Air Source Heat Pump and their effectiveness. The team overcame these with addressing the residents' concerns such as noise generated by the heat pump, heating ability as well as invasiveness of the installation.

After this, the resident was put at ease that these issues would be overcome in the design process, and the system would be bespoke to their property resulting in a well-performing heating system.

Outcomes

The main achievement from this project is the resident now has a fully heated home, running off renewable energy.

This was the best possible outcome, the property was already well insulated, but the resident was heating the property with portable heaters.

Since visiting the resident post-install, they were very pleased with the outcome of the grant funding scheme and has since mentioned it to neighbouring properties.

Thankfully, the only problems that the team had were very low level in helping quell myths surrounding Air Source Heat Pumps.

Milestone update

- Initial contact was made from the customer in December and the referral was made by the team to YES Energy soon after that.
- A quote for work was received in January and installation started in late February.
- The resident has been visited after the works were completed to make sure that she's happy and understands what measures are installed and how they work.

Find out more about the Local Energy Advice Demonstrator projects in the Midlands.

