

# Teignbridge Action on Climate - Carbon Cutters team.

## Number 5. What is a Heat Pump, and will it work in my house?

If the future homes standards come into force in 2025, new homes will be banned from installing gas and oil boilers with a total ban on the sale of oil and gas boilers planned from 2035 (with a few exceptions).

Assuming no other breakthrough solution or significant reduction in the energy intensity of hydrogen, our domestic heating and hot water will be provided by heat pumps in the future.

### What is a heat pump?

A heat pump absorbs heat into a liquid refrigerant from the outside air, ground or water. The refrigerant is compressed to increase its temperature. This heat is then distributed to radiators and / or underfloor heating and the hot water tank.

Heat Pumps are powered by electricity. As the grid reduces its carbon intensity this will increasingly be most people's lowest carbon emission source of energy for domestic heating and hot water supply.

### Will a heat pump work for me?

It depends on what you are trying to achieve. Cost reductions? Greenhouse gas reductions? Improvements to the comfort of your home?

Most heat pumps operate efficiently at lower temperatures than gas and oil boilers. If your house is particularly poorly insulated, very draughty or has few or small radiators it is possible a heat pump will not produce enough heat to keep your home at a comfortable temperature without remedial actions.

For most homes though, a heat pump will be an efficient solution.

### Will I need to upgrade my pipes and radiators?

If you can keep your house at a comfortable temperature today and you consume less than around 100 kWhs of energy per sqm of heated floor space annually to heat your home, then a heat pump should work for you.

### What next?

Contact us at Action on Climate Teignbridge (independent advice) or another expert on thermal performance and home heating. We can, or they should, guide you through collecting data to determine how a heat pump would perform in your home.

