Buildings: Hybrid Heat Share

This lever controls the sub-levers listed in the table, and ambition levels are for the end year shown on the right hand side.

Hybrid heat pumps refer to heating systems that have both a heat pump and a gas boiler. The heat pump provides most of the heating and the gas boiler is used on the coldest of winter days to boost the amount of heat provided. Hybrid heat pumps can be used in off-gas grid homes, using gas bottles for example. For some homes they are easier to install than heat pumps, as they can provide higher distribution temperatures in cold weather. In common with heat pumps, air source (hybrid) heat pumps (ASHP) are easiest to install and are more suitable for individual home heating systems.

In 2015, hybrid heat pumps provided negligible amounts of domestic and non-domestic heat. It is envisaged that the rate of deployment of hybrid heat pumps would be similar to the alternative of pure heat pump systems. This is because the installation rates of both types of system depends on how readily the heat pump component can replace gas boilers which already enjoy widespread deployment in the UK.

Key Interaction

Low-carbon electricity must be generated to maximise emissions savings from electrified heating. Decarbonisation of the gas grid by increasing the shares of biomethane and hydrogen can reduce emissions from the gas boiler component of the hybrid heat pump system (see the Hydrogen Gas Grid Share and Biomethane Gas Grid Share levers). Hybrid Heat Pumps are below District Heat and Heat Pumps in the priority order, if the total ambition for share exceeds 100%.

Level 1

The heat pump market fails to grow and makes a negligible contribution to the UK's domestic and non-domestic heat demand.

Level 2

Deployment rates rise to 25%, slightly higher than non-hybrid heat pump systems (see Heat Pump Share).

Level 3

Deployment rates rise to 50%, slightly higher than to non-hybrid heat pump systems (see Heat Pump Share).

Level 4

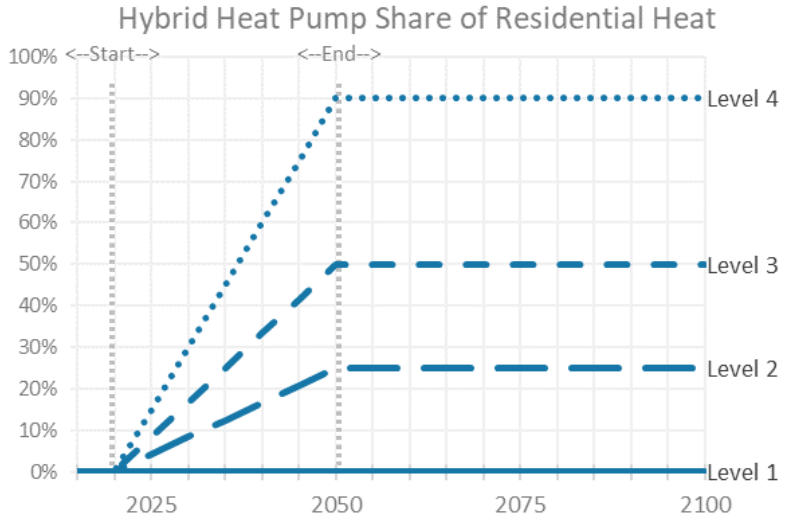
Deployment rates rise to 90% and hybrid heat pumps are installed in all buildings that are suitable in terms of size and thermal performance.

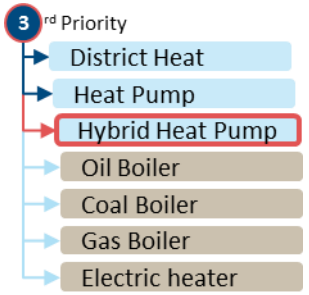
Default Timing

Start year: 2020, End year: 2050

Hybrid Heat Pump share of heat supplied

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
Residential	share	0%	0%	25%	50%	90%
Non-Residential	share	0%	0%	25%	50%	90%





Lever Priority

Hybrid heat pumps are third in the priority order for supplying heat to buildings.

Where supply would otherwise exceed demand, measures lower in the priority order will be superseded by those above them. Fossil fuel boilers and electric resistive heating meet any shortfall in demand.