

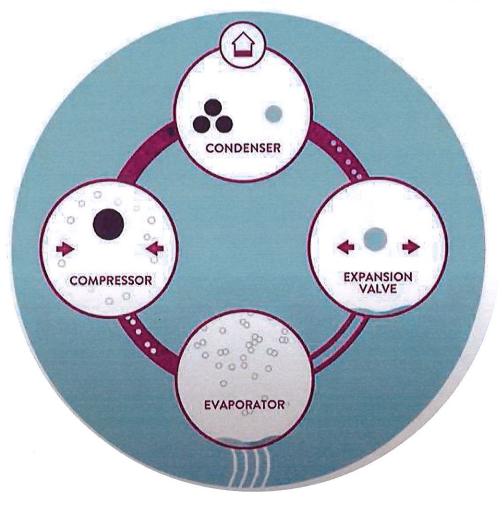


Heat pumps

How does a heat pump work?









Air source heat pumps





Suitable for a wide range of homes

- Heat pump installed outside
- 300% efficient
- Quiet
- 15+ year lifespan
- Eligible for the BUS

Considerations

- Insulation
- Location of heat pump
- Planning permission?



Ground source heat pumps





For properties on larger plots

- Heat pump installed inside, ground loops outside
- 400%+ efficient
- Consistent year-round performance
- Silent operation
- Eligible for the BUS

Considerations

- Insulation
- Space ground loops outside and plant room inside



Heat pump installation and running costs







Air source installed cost = £10,000 - £12,000

Ground source installed cost = £15,000 - £20,000

Minus any Government Incentive payments

Running costs

Heat Source	Fuel Cost (kWh)	Efficiency (%)	Real Cost (kWh)
GSHP	15.0 p	330	4.5p
Mains gas	4.2p	89	4.7p
ASHP	15.0 p	310	4.8p
Oil	4.8p	92	5.1p
LPG	5.8p	89	6.6p
Electric	15.0p	100	15.0p

Figures Provided by Energy Savings Trust, April 2020, and should be used as a guide

Heat pump grants





Boiler Upgrade Scheme

- An upfront grant
- £5000 for ASHP, £6000 for GSHP
- Details on application still TBC





Heat pumps in summary...





Air source

Efficiency

Aesthetics

Sound

Planning

Site

Scale

Installed cost (approx. 250m²)

BUS

Slightly less efficient

Heat pump located in close proximity to building

Audible

Permitted development, must also meet MCS020

Suitable for urban properties

Small – large

£10,000 - £12,000

£5,000

Ground source

Generally more efficient

'Invisible' once fitted

Very quiet (silent)

Not required (subject to groundworks)

Large plot required

Medium – large properties

£15,000 - £20,000

£6,000

Why design matters: performance & installation



A bespoke, integrated heating design...

- ✓ Guarantees the system performance ✓ Makes installation quick & simple





Thank you