COLD ROOM PLUS • HVAC & REFRIGERATION

Heat Pump Installation & Planning Guide

Belfast & UK-Wide

F-Gas & RACHP Certified

Transitioning to heat pump technology requires a clear understanding of capital investment, installation stages, and long-term operating costs. This visual guide outlines key parameters for UK homeowners and commercial operators.

1. Installation Cost Breakdown

ASHP

Air-Source Heat Pump

£10,000 – £16,000

Average turnkey gross installation cost

- Lower upfront capital requirement
- Minimal ground disturbance & fast setup
- Ideal for retrofits and standard plots

GSHP

Ground-Source Heat Pump

£20,000 – £35,000+

Including ground loop / borehole excavation

- Highest seasonal coefficient of performance
- Stable ground temperature year-round
- Requires land for trenches or drilling rig

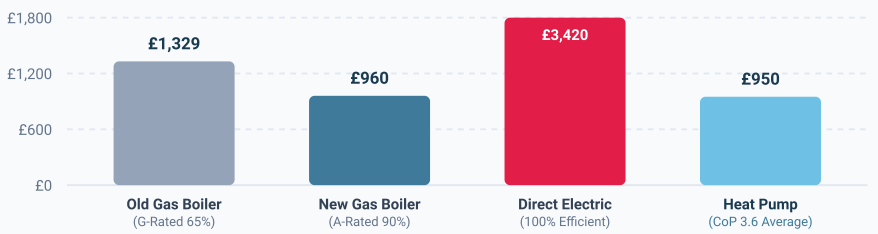
Regional Pricing Note: Figures are illustrative UK national averages. Specific Belfast and Northern Ireland costs depend on property heat-loss calculations, electrical supply capacity, and room radiator retrofits determined during an individual survey.

2. Heat Pump Installation Roadmap

1. **Home Survey & Heat-Loss Calculation**
   CIBSE-compliant room-by-room heat loss survey, radiator sizing, and electrical supply assessment.
2. **System Design & DNO Permits**
   Hydraulic schematic design, buffer cylinder specification, and grid operator (DNO) connection approval.
3. **Equipment Installation & Pipework**
   Mounting outdoor monobloc/split unit, positioning indoor cylinder, and installing upgraded low-temp radiators.
4. **System Flushing, Commissioning & Testing**
   Chemical power flushing, glycol glycol dosing, pressure testing, and weather-compensation curve setup.
5. **Homeowner Handover & Certification**
   Controller walkthrough, MCS compliance sign-off, warranty registration, and maintenance schedule.

3. Estimated Annual Running-Cost Comparison

Comparison based on a representative UK home with an annual heating demand of **12,000 kWh**. Figures represent estimated operational costs under current energy tariff assumptions.



Model Tariff Assumptions: Electricity unit rate: 28.5p/kWh. Gas unit rate: 7.2p/kWh. Figures demonstrate illustrative efficiencies and operating costs under uniform heat loss conditions, not guaranteed measured savings.

4. Quote Comparison & Installer Checklist

Belfast Heat Pump Quote Comparison Tool

Use this standard verification checklist when evaluating competitive proposals from HVAC contractors before commissioning your installation.

Evaluation Point	Key Requirement / Specification	Installer Check
1. Heat Loss Survey	Room-by-room EN 12831 calculation supplied?	[ ] Verified
2. Certification	MCS registered & F-Gas certified engineers?	[ ] Verified
3. Scope & Radiators	Includes low-temperature radiator replacements?	[ ] Verified
4. Performance CoP	Seasonal CoP rating specified at 35°C flow temp?	[ ] Verified
5. Warranties	Compressor & labor warranty terms specified?	[ ] Verified
6. DNO Approval	Grid operator notification & permission included?	[ ] Verified

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