

Decarbonisation - Our experience



Alternative Heat

- Est 2005
- Family Run Business
- Currently employ circa 270Nr heads
- 19 Years experience in Renewables & Decarbonisation
- Inhouse Design & Build teams
- Over 500Nr heat pump solutions in operation



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Policy for change!



ENERGY STRATEGY FOR NORTHERN IRELAND

THE PATH TO NET ZERO ENERGY

ACTION PLAN 2022



JANUARY 2022

Public support -

N.Ireland -

- Energy Efficiency Capital grant launched NI May 24 (5 yr scheme)

Republic of Ireland -

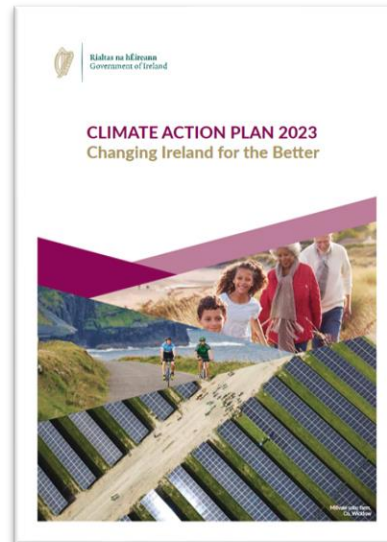
- Pathfinder scheme launched in ROI (2 yr scheme)

Scotland -

- Salix PSDS Introduced to Scotland Feb 24 (5 yr scheme)

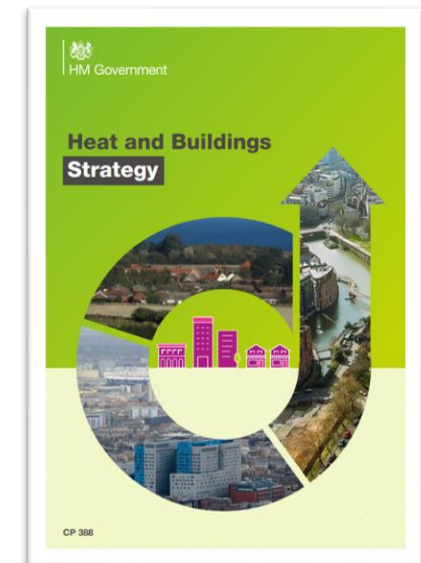
England & Wales -

- Salix PSDS fund in England & Wales extended 2028



Heat in Buildings Strategy

Achieving Net Zero Emissions in Scotland's Buildings



Route to Net Zero



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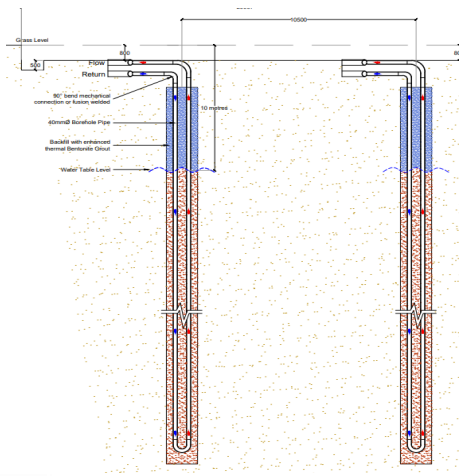
Heat Pumps
Our experience

Key Projects - Decarbonisation

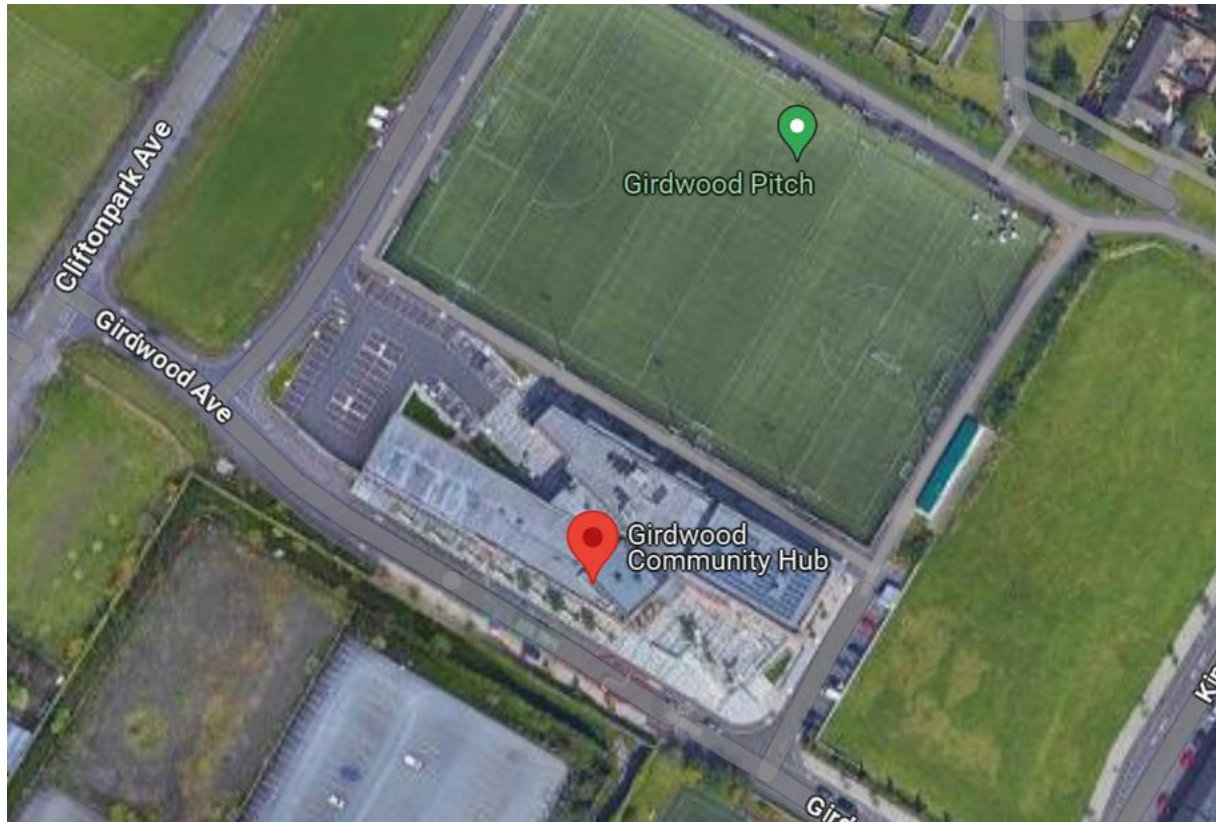
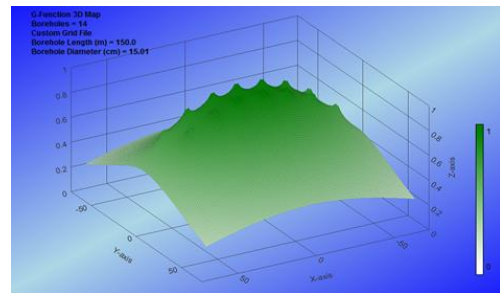
Client: Harvey Group

Site: Girdwood Community Hub

- Project:
- 180kW Total Installed GSHP capacity
 - 2,000m vertical collector backfilled with bentonite grout
 - 1,200M2 horizontal ground collector combined with bore hole array



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Key Projects - Decarbonisation



Client: Education Authority

Site: Eglinton School Derry / London Derry

Project:

- 220kW Total Installed GSHP capacity
- 1800m horizontal ground collector pipework
- Design included a reverse return configuration to balance temperatures and enhance the seasonal CoPs of the system



Key Projects - Decarbonisation

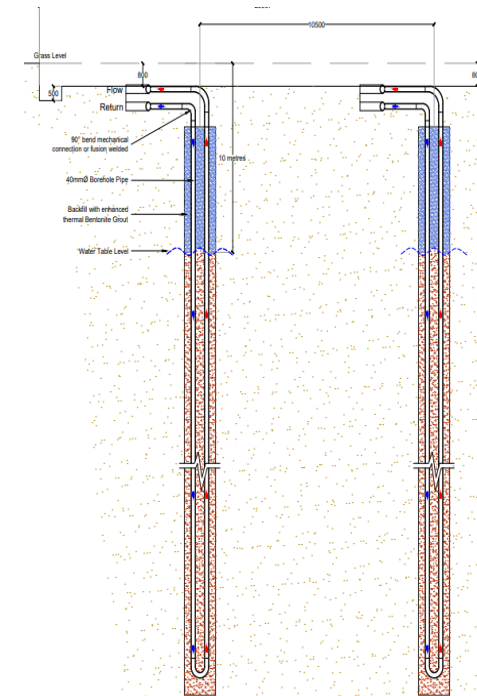
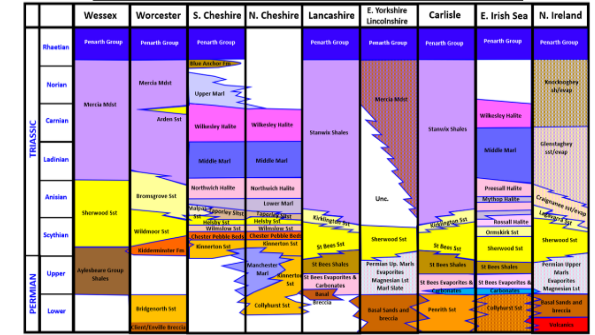
Client: Farrans Construction

Site: North West Transport Hub

Project:

- 140kW Total Installed GSHP capacity
- 3,300m vertical collector backfilled with bentonite grout
- Full GLD model generated and ground temperatures modelled

Figure 4: UK Permo-Triassic Geothermal Play Stratigraphy



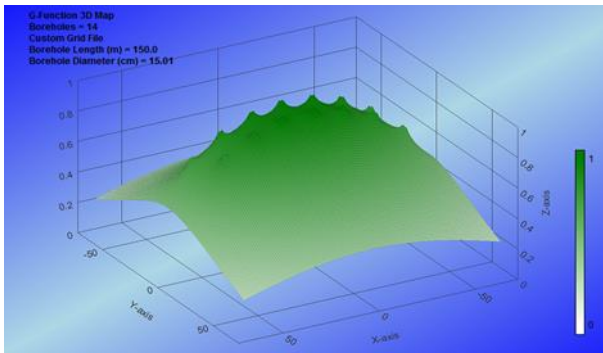
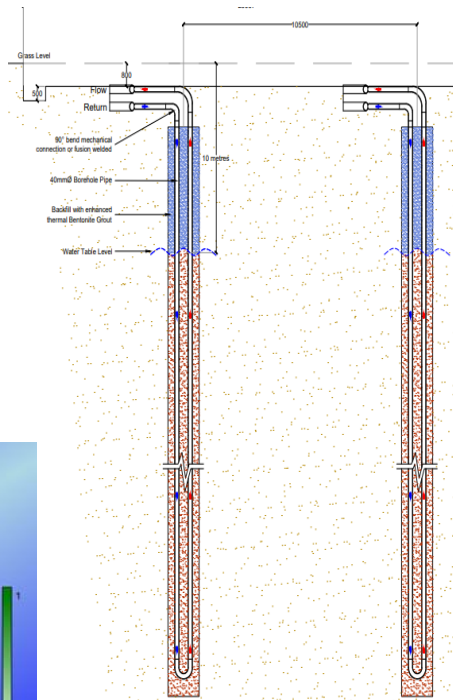
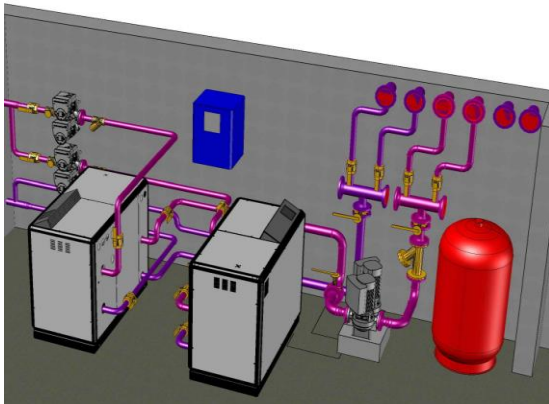
Key Projects - Decarbonisation

Client: Scottish Council of Independent Schools

Site: Fettes College

Project:

- 180kW Total Installed GSHP capacity
- Bore hole array with 4200m total collector pipework
- System design optimised via GLD software modelling



18MW District Heating Network



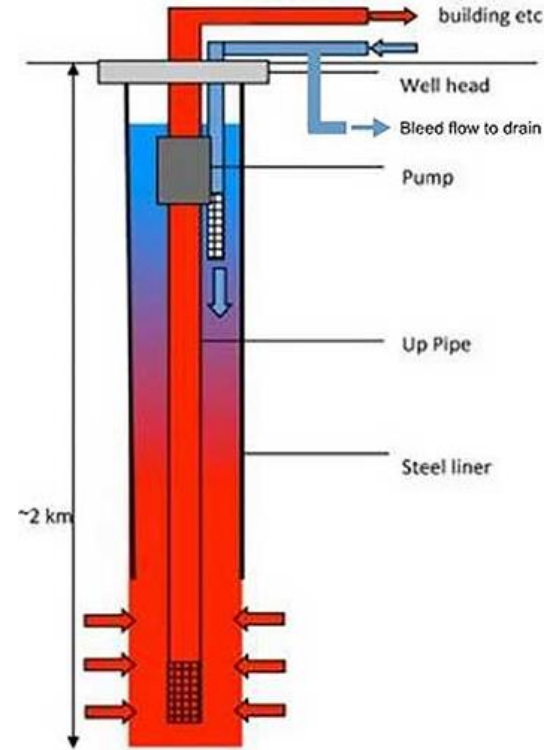
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Client: Grangegorman Development Agency

Site: Technical University Dublin

Project:

- 15MW Prefabricated Energy Centre
- Site wide MTHW district heating system
- 3MW Deep Geothermal boreholes to provide 80 Degree flow temp at 2.4km depth



Zero Carbon ASHP Projects



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Client: Yorkshire Council schemes

Systems: 69Nr. Heat pump systems installed

Project:

- 7.8 MW Total Installed capacity
- Upgrade works to existing building fabric and BMS systems
- Design and deployment of bespoke remote monitoring systems
- End uses include, Primary & Secondary Schools, Town Halls, Leisure Centres, Museums, Sports Centres, Care Homes, Council Offices.



Key Projects - Decarbonisation

- Client: London Council scheme
- Systems: 38Nr ASHPs & 10Nr WSHPs installed into existing buildings
- Scope: Multiple building heating upgrades inc replacement of gas boilers for stand alone heat pump systems



Key Projects - Decarbonisation

Client: Fife Council

Systems: 18Nr ASHPs Installed into existing buildings

Scope: Design & Install hybrid heat pump solutions into a range of existing Primary, Secondary schools and Leisure Centres.



Key Projects - Decarbonisation



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Client: Glasgow City Council

Site: Hillpark Drive

Project:

- 4MW Hybrid ASHP & Gas Prefabricated Energy Centre
- Site wide BMS controls strategy optimisation
- End use 350Nr social & private residential properties



Key Projects - Decarbonisation

Client: North Warwickshire and South Leicestershire College

Systems: 1Mw ASHP system c/w building fabric upgrades

Scope: The decarbonisation project comprised the replacement of gas fire boilers with a 1Mw ASHP, upgrade of the district heat network, building fabric upgrades, upgrades to the heat emitters and installation of solar PV.



Key Projects - Decarbonisation

Client: **Royal Botanic Gardens**

Systems: **Kew Gardens London**

Scope: We are appointed as Principal Contractor delivering site wide decarbonisation measures to include WSHP EC, ASHP, Solar PV and Fabric Upgrades.



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Thank you for listening

QUESTION
PLEASE

