

Shallow Ground Source Standard

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- **Introduction**

The Domestic Renewable Heat Incentive (RHI) is expected to be launched in spring 2014 and it is expected that the number of GSHP installations in the domestic sector will increase significantly.

The GSHPA has produced Standards for vertical boreholes and thermal pile ground arrays. A horizontal ground arrays Standard is needed. A significant part of the growth of GSHP within the domestic sector will use horizontal ground arrays.



- Scope

Heat exchange systems with a maximum depth of 10m

Generally covering:

- I. Slinkies
- II. Straight Pipe
- III. Thermal Screw piles
- IV. Spiral Probes

The standard is designed to able a quick reference for minimum materials specification, techniques and qualifications requirements



- The document covers:
 - Regulatory & Government Agency Requirements
 - Design & Installation – Personnel & Training
 - Design Methods & Compliance
 - Soil Thermal Conductivity Testing
 - Ground Heat Exchanger pipe materials & jointing



- The document covers:
 - Groundworks
 - Pipe Placement & Backfilling
 - Flush, Purge & Pressure Test
 - Pumps & Manifolds
 - Thermal Transfer Fluid
 - Design Drawings



- The Standard doesn't cover
 - Any load bearing ground array
 - Detailed design of a ground array
 - Detailed installation of ground arrays



- Timescales
 - Currently in its draft the Standard will be circulated around the GSHPA TSC for comment before Christmas.
 - Following approval by the TSC it will be released for general comment.



- Improvements
 - It will need regular updating due to work currently underway by other bodies, mainly
 - Pressure Testing
 - Thermal Transfer Fluid Requirements

