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GEOTeCH

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D6.1 Commissioning Protocol Plug & Play systems Executive Summary

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1. PUBLISHABLE EXECUTIVE SUMMARY

This report details the implementation procedure, commissioning protocol and monitoring plan for the four demo sites in the GEOTeCH project (three small scale Plug and Play demo sites and one large tertiary building demo site).

For the three P&P demo sites (Amsterdam, Tribano and Leicester). The commissioning procedure is described and detailed in commissioning forms and work flow, including:

The Technical Commissioning of the borehole system, which comprises:

1. Purging of system
2. Leak test – testing of all connections and components
3. Strength test – test strength of PE material
4. Introduction of anti-freeze
5. Circulation medium properties and quality assessment.
6. The Technical Commissioning of the plant room, which comprises:
 7. Pre-commissioning
 8. Electrical connections verifications
 9. Functional commissioning of plant
 10. Commissioning of heat pump unit
 11. Operational commissioning of plant
 12. Reporting and records
 13. Documentation

The monitoring plan describes all the sensor- and control points available in the P&P system, depending on the demo site specifications actual monitoring may be more limited. The monitoring system will be used to asses overall system operational characteristics and performance but also high-frequency monitoring of all control points for the evaluation of the control algorithms and system response.

For the large scale demo sites the procedure for the technical commissioning as well as a description of the monitoring plan is established. The results from this document will serve as a basis for the next steps to be developed in WP6, in particular T6.5 Barcelona large-scale tertiary building screen wall demo and T6.6 Commissioning of the demo sites.