



LEGISLATION AND REGULATION ANALYSIS COUNTRY BROCHURES

SPAIN

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The analysis covers the legislative situation in Spain and focuses specifically on the particular aspects relating to the real case study site at the University Polytechnic building of Valencia and the virtual case study at the Grupo Ortiz Office Buildings in Vallecas, Madrid.

GEOHERMAL LEGISLATION

Geothermal Energy in Spain is included in national legislation through the Ley de Las Minas legislation. Licensing is not applicable in the case of ground source heat pump systems at national level. In some regions a Municipal authorisation may be required. A non-legal definition is set out by the Ministry of Industry and the Institute for Diversification and Saving of Energy (IDEA).

VALENCIAN COMMUNITY

Under the Valencian Community, there is no specific licensing for ground source heat pump systems. A registration process is applicable and upon completion of the work, the installation must be registered with the Regional Ministry of Industry like any thermal installation (set out in the RITE law).

MADRID COMMUNITY

The Madrid Community legislation: Ley 20/2002 19/06/02 (BOCM n°154 01/07/02) states that to obtain a permit for drilling geothermal boreholes of more than 200 meters depth, a mandatory Environmental Impact Assessment is required and that the Environmental Impact Declaration must be favourable to grant the permit. In cases where the perforation is shallower than 200m the local environmental administration must undertake a case by case assessment before they can process a permit.

LICENSING & PERMITTING PROCEDURES

LICENSING & REGISTRATION

Both the Valencia Community and the Madrid Community have no licensing process specific for ground source heat pump systems. A registration process is applicable and upon completion of the work, the installation must be registered with the Regional Ministry of Industry like any thermal installation (set out in the RITE law). A further registration with the EICI (Industrial Control and Inspection Entities) in Madrid jurisdiction (in accordance with to Orden 9343/2003) is required in the Madrid Community.

A threshold of 70kW installed capacity is applied to all thermal installation including GHSPs with large systems considered above this value. Where the installed capacity is between 5 and 70kW, a technical notification is required.

DRILLING PERMITS

No specific permissions are required for drilling in Valencia Community. Any low enthalpy project in the Madrid Community has to be approved by the local authorities. A form must be filled in including data about the boreholes (according to RD863/85), the installed capacity of the system and a document justifying the payment of the taxes has to be attached.

Groundwater based systems that extract water require a permit depending on the River Basin Agencies where the installation is located. A permit time of between 1 to 6 months can be expected and a cost between €300 to €500.

EIA REQUIREMENTS

Domestic closed loop ground source heat pump systems are exempt from Environmental Impact Assessment requirements in the Valencian Community and in the Madrid Community.

EIA requirements are only applicable for systems using groundwater with a system installed capacity greater than 70kW or where boreholes exceed a depth of 200m. In this case, an EIA is required by the Council/Ministry or the River Basin Agency and needs to be submitted to the Ministry of Environment and Regional Environment Ministry. A processing time of between 3 to 6 months can be expected.

MONITORING REQUIREMENTS

Mandatory monitoring of all thermal installations with an installed capacity above 70kW is applicable. Energy consumption and power consumption of equipment must be recorded by the end user. For the purpose of the case study the cost of installing monitoring equipment is expected to be between €2,500 to €3,000. Monitoring costs for other systems are dependent on the size of the installation.

ENVIRONMENTAL

Restrictions and regulations relating to borehole construction at the case study site are set out in the “Ley de Las Minas” legislation (in the regions and circumstances where “Ley de Minas” is applicable) and imply compliance with technical instruction ITC 06.0.06 “Aprovechamiento de recursos geotérmicos”. There are strict requirements with respect to the design and project management aspects. In addition specific requirements with regard to the drilling and the exploitation of geothermal fluids are applicable.

BUILDINGS

The implementation of the EPBD in the building regulations is covered by the technical building code Codi-go Técnico de la Edificación (CTE). This stipulates that between 40% and 70% of the DHW demand in the case of new residential, non-domestic & commercial and public sector buildings must be met through renewable energy sources. For retrofit buildings, a similar level of contribution for every 1,000m² of building is required. No specific targets are set for GSHP systems.

Compliance with regulations for historical buildings is also in place, however exemptions are applicable on a case by case basis.

HEATING & COOLING PLANTS

Integration of the SGE system project into the general Request for regulating the building including the system as a potential system for energy savings (renewable energy system according to the European definition). The regulation of the thermal installations will be managed by the Technical Construction Code, which makes a direct reference to the RITE (Reglamento de Instalaciones Térmicas en Edificación). This document is used for the regulation of the thermal installations in buildings. The document compiles a series of requirements that should be achieved in order to fulfil the conditions of the installation. Heating and cooling plants (thermal installations) must be designed, installed, maintained and operated in order to meet the technical requirements of comfort and hygiene, energy efficiency and security established by the Regulation of Thermal Installations in Buildings (RITE) [Chapter 10, 11, 12 and 13, and Technical Directions]

The RITE regulations require thermal installations that have a rated thermal installed capacity (hot or cold) of greater than 70 kW to obtain a permit. For plants with a rated thermal installed capacity (hot or cold) greater than or equal to 5 kW and less than or equal to 70 kW, the permit may be replaced by a technical report.

POLICY CONTEXT

The potential growth of GSHPs in the Spanish market was set in the 2011-2020 Renewable Energy Plan (PER) with a projected installed capacity of 210MWth equating to c. 4,600 GSHP installations in 2015 (Arrizabalaga, et al., 2013). A target contribution of renewable heat from geothermal heat pumps of 40.5 ktoe by 2020 has been set in the NREAP for Spain. The recently published progress report in 2015 reported 16ktoe contribution from geothermal heat pumps.. No specific targets beyond 2020 have been set.

No specific targets towards growth of GSPs in the Spanish market in the context of the EU 2030 targets were set at the time of writing this report. Targets included in any local renewable policies were also not available.

STANDARDS & GUIDELINES

Standards covering ground source heat pumps and collectors material and equipment are governed by the UNE 100715-1. Energy labelling of equipment is covered as part of the Royal Decree 1390/2011. There are no local standards covering drilling plant equipment.

Best practice guidance for the design and installation of closed loop ground source collectors is covered by the Technical Guidance document of closed circuit geothermal heat exchanger design (IDEA, 2012).

TRAINING & CERTIFICATION

Training and Certification initiatives are implemented through GEOPLAT and the GEOTRAINET programme for system designers and installers. Individual project workshops for policy makers and decision makers have been implemented but no specific scheme is in place. Certification for installer of thermal installations is generic and not specific to GSHP systems.

OTHER INFORMATION

Information on the promotion of GSHP technology and its benefits is available through regional agencies such as AVEN in Valencia, Geoplat and Geoener.

Financial incentives through PAREER , GEOTCASA, IDEA and programmes from the regional energy agencies, as well as tax incentives and low interest loans, are also available.