

COUNTRY REPORT: Portugal

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This short report includes a brief description of the most important elements in Portuguese regulations and certification/subsidy schemes related to solar thermal products is given here below. The description is valid for September/2010¹.

Regulatory Framework

Building Regulation (general)

The codes for buildings, related with the EU Directive 2002/91/CE, were published in the Official Portuguese Journal (*Diário da República*), on the 4th April 2006.

These codes define the Building Certification National System, in Portuguese "**SCE - Sistema de Certificação de Edifícios**". The national entity responsible for the management of SCE is ADENE, National Energy Agency. All information related to SCE can be found in:

<http://www.adene.pt/ADENE/Canais/SubPortais/SCE/Introducao/Apresenta%c3%a7%c3%a3o.htm>.

The official documents are:

Building Certification National System on Energy and Interior Air Quality (*Decreto-Lei n.º 78/2006. DR 67 SÉRIE I-A de 2006-04-04*): It transposes to the Portuguese legislation the Directive n.º 2002/91/CE, of the European Parliament and Council of 2002, 16th December, related with energy performance of buildings.

Air Conditioning Energy Systems Code (RSECE) (*Decreto-Lei n.º 79/2006. DR 67 SÉRIE I-A de 2006-04-04*): It defines hygienic and thermal comfort conditions; it imposes rules for the air conditioning systems efficiency, for its maintenance and for keeping the quality of interior air, to achieve a better global energy efficiency of buildings.

Thermal Performance Building Code (RCCTE) (*Decreto-Lei n.º 80/2006. DR 67 SÉRIE I-A de 2006-04-04*): It improves the already existing code, almost duplicating the thermal performance request in the new and renovated buildings and imposing the usage of solar thermal collectors for hot water production if there is favourable conditions for exposure (if the roof or cover runs between SE and SW without significant obstructions) in a base of 1m² per person (the total can be reduced to 50% if space is necessary for other important usages of the building).

Clarification of many of the aspects of the application of the above legal documents can be found in a document where **most frequent questions**

¹ The original report was published in 2007 and was developed in the framework of the project Solar Keymark II with the support of the Intelligent Energy Europe programme.

are lists with the answers prepared by a working group, consultant of the SCE manager - ADENE.

The RCCTE, which imposes the usage of solar thermal collectors for water heating preparation also indicates that:

- a) the annual energy production of the solar system must be calculated with a programme developed by INETI (SOLTERM programme). Presently LNEG is the responsible for this software.
- b) for performance calculation of such systems, the collector certification according to the European Standards is needed,

The certification scheme Labels accepted are:

- *Produto Certificado CERTIF*
- Solar Keymark

- c) installers of these systems must also be certified installers,

The General Direction of Energy and Geology manages the certification of installers. Information of certified installers can be found in the site:

www.aguaquentesolar.com

- d) the solar system must have a six year guarantee of maintenance.

Registration

- There is no system for registration of Solar Thermal Systems. The market evaluation each year is made by the Industry Association – APISOLAR in collaboration with ADENE – National Energy Agency.

Safety control

Solar thermal systems and collectors, as part of the building, shall be in agreement with the legislation – General Regulation on Urban Buildings (*Regulamento Geral de Edificações Urbanas* - Decreto-Lei n.º 38 382 de 7 de Agosto de 1951). This law is dated of 1951. Several amendments have been issued².

The law dated of 1951, indicates that all constructions must be made with the best practice rules. (Chapter I, Article 15th, 16th and 17th). No detailed guidelines are given concerning integration of solar thermal in building envelopes.

Public Incentives (subsidies, ordinances or other)

² Decreto-Lei n.º 38 888 de 29 de Agosto de 1952, Decreto-Lei n.º 44 258 de 31 de Março de 1962, Decreto-Lei n.º 45 027 de 13 de Maio de 1963, Decreto-Lei n.º 650/75 de 18 de Novembro, Decreto-Lei n.º 43/82 de 8 de Fevereiro, Decreto-Lei n.º 463/85 de 4 de Novembro, Decreto-Lei n.º 172-H/86 de 30 de Junho, Decreto-Lei n.º 64/90 de 21 de Fevereiro, Decreto-Lei n.º 61/93 de 3 de Março, Decreto-Lei n.º 409/98 de 23 de Dezembro, Decreto-Lei n.º 410/98 de 23 de Dezembro, Decreto-Lei n.º 414/98 de 31 de Dezembro, Decreto-Lei n.º 555/99 de 16 de Dezembro, Decreto-Lei n.º 177/2001 de 4 de Junho, Decreto-Lei n.º 290/2007, de 17 de Agosto e Decreto-Lei n.º 50/2008, de 19 de Março.

Relevant incentives:

Financial incentives, to promote sustainability of the Portuguese solar thermal market:

The most important measures taken at national level where:

- i. a medium level of VAT for solar thermal products (12% until June 30th, 2010, and now 13%);
- ii. a partial deduction applicable to the income tax (30% of the total cost, with the limit of 803€ (value to 2010))
- iii. a higher allowed depreciation rate for companies on the acquisition of solar thermal equipment (annual depreciation rate of 25% since the acquisition year).

During 2009 a national campaign was implemented in order to push the growth of the solar market – incentive of 50% of the acquisition cost of solar thermal systems by uni-familiar householder; loans at a lower-than-market interest rate for the remaining cost.

In the end of 2009, similar incentive was also considered applicable to projects proposed by Private Institutions of Social Solidarity (IPSS).

The incentive for uni-familiar householders is no longer applicable but the incentive for the IPSS is still opened.

The requirements for support schemes are usually similar to those of the Energy Building Certification.

In the frame of the support campaign of 2009, the requirements were:

- Only certified products (collectors / factory made systems) were considered;
- The systems had to be installed by certified installers.
- The solar system must have a six year guarantee of maintenance.

Testing

- One test laboratory is accredited for testing of Solar Thermal Collectors and Factory Made Systems - Solar Collector Testing Laboratory at LNEG/ INETI

Certification

Product certification:

- A national certification scheme was developed in years 2003/2004 and the Portuguese Certification Body – CERTIF – issues certificates according to this certification scheme – PRODUTO CERTIFICADO/CERTIF. This scheme is identical to Solar Keymark.
- Solar Keymark certification is accepted fully in Portugal without additional requirements
- CERTIF is empowered by CEN to issue Solar Keymark Certificates

Installer certification:

- There is a certification scheme for solar thermal installers.
- The body responsible for this certification is the Directorate of Energy (<http://www.dgge.pt/>). Information on this certification scheme can also be found in www.aguaquentesolar.com.

Insurance

There are no special insurance schemes for installation of Solar Thermal Systems.

Other relevant information

Presently the only requirements for Solar Thermal Systems, either at the STO – Solar Thermal Obligation level (Energy Building Certification) or Incentives, is the need to have the collector certified (or the system when it is a Factory Made System). No requirements on other systems components (storage tank, controller ...) exist.

For citizen's awareness rising, information on line is available concerning:

- building energy certification system (the referred SCE), on the official site of ADENE,
<http://www.adene.pt/ADENE/Canais/SubPortais/SCE/Introducao/Apresentacao3a7c3a3o.htm> ,
which is the SCE manager;
- solar thermal certification manual, lists of certified both solar thermal installers and equipments, training entities, etc., on an official site managed by ADENE,
<http://www.aguaquentesolar.com/>; and
- national energy policy, on the official site of the Portuguese General Directorate of Energy (<http://www.dgge.pt/>).

Trade Barriers

The fact that:

- i) only incentives for systems installed by Private and Public Institution of Social Solidarity are presently available;
- ii) the private owners only have fiscal incentives for the installation of Solar Thermal Systems in existing houses;
- iii) incentives though feed in tariffs are available for other renewable dedicated to production of electricity,

does not create the best conditions for installation of Solar Thermal System for, e.g., air conditioning or for industrial applications, which have large potential in Portugal for the growth of the Solar Thermal Market.

Actions needed

The STO – Solar Thermal Obligation, implemented in Portugal is a good incentive for the growth of the Solar Thermal Market.

Presently there is a reduction on new buildings and an effort has to be made to have good solutions for solar thermal systems installations in building renovation.

Other areas of application of Solar Thermal Systems are those of Industrial Applications and Solar Cooling (Air conditioning). In these areas new forms of incentives are needed, specially incentives that are on similar level with feed in tariffs for production of electricity.