

GREECE

Status

A brief description of the most important elements in Greek regulations and certification/subsidy schemes related to solar thermal products is given here below. The description is valid for November 2007.

Regulations

- The general building regulations-requirements shall be fulfilled
- There are no specific rules/regulations for solar thermal systems/components in the building regulation. The installed elements should be in compliance to the general building regulations (CE marking, aesthetic issues for preserved sites, etc).
- According to the revised Building Regulation (expected to be implemented in the near future), a study for the installation of a solar thermal system is compulsory for the new buildings. On the other hand, the installation itself will be optional.
- The current building regulation does not include in the calculation of energy loads the saving by solar thermal
- There is no specific legal requirements for solar thermal products, except CE Marking (only for systems, especially when a heating element is included in the system)
- The Directive 2002/91/EC for energy performance in buildings has not yet been implemented.

Subsidies

Within Community Support Frameworks, concerning new installations of large solar thermal systems, subsidies are set, given some requirements such as a given level of collector instantaneous efficiency (at $G=800 \text{ W/m}^2$ and $T_m-T_a = 30\text{K}$) :

- 40% subsidy for collector instantaneous efficiency higher than 45%
- 50% subsidy for collector instantaneous efficiency higher than 60%

The subsidies are announced through specific calls of the Ministry of Development (www.ypan.gr). Decision has to consider the specific technical and economical aspects of its application.

Testing

The *Solar & other Energy Systems Laboratory* of NCSR “DEMOKRITOS” is accredited to perform testing of solar thermal collectors and factory made systems according to ISO and EN standards.

Certification

- The Solar Keymark for collectors is implemented in Greece
- The Greek Certification Body ELOT is empowered to deliver certificates
- There is no national energy labelling scheme for hot water tanks
- A national certification scheme for systems has been recently established on the basis of Solar Keymark, including also a rating depending on the system annual energy output
- There is no certification scheme for installers of solar thermal systems

Insurance

- The installation of a solar thermal system usually does not affect house insurance

Actions taken in the project period

General

The actions taken within the project period for co-ordination of the Greek requirements in regulations and subsidy schemes with European standards and Solar Keymark certification are described below.

Regulation

- Since the Directive 2002/91/EC for energy performance in buildings has not yet been implemented, all related actions are pending, including amongst others the calculation of energy loads and gains for new buildings has to include the option of installing a solar thermal system
- The obligation to install solar thermal systems to every new building (similar to the new Spanish Building Code), has been proposed through the project activities, and it is under discussion by the relevant authorities

Subsidies

- As a result of the project activities, national subsidy schemes are linked to European standards and the Solar Keymark
- A proposal for the link of subsidies of factory made systems based on certified test results systems

Testing

Through its role as a testing laboratory, the Solar & other Energy Systems Laboratory comes in contact with several manufacturers, including the Greek Solar Thermal Industry Association and the respective Cyprus Association. Through the contacts and organized meetings, the laboratory has promoted the use of EN testing to the Greek manufacturers (communication actions). Moreover, the Laboratory has organized seminars for technical staff of manufacturers and has analysed the involved technical aspects, as well as the contribution of testing to the quality of the end-product.

Certification

The Laboratory, has implemented several actions concerning dissemination of the Solar Keymark scheme on a national level, including:

- At least ten visits of Laboratory experts to manufacturers, members of EBHE (Greek Solar Thermal Industry Association). Through this occasion, the new brochure of the SK scheme has been offered.
- A workshop organized by NCSR DEMOKRITOS, with the co-operation of EBHE: "Promotion Actions for the Dissemination of Solar Thermal Products in Greece-The

National Policy”. This workshop has been supported by the Center for Renewable Energy Sources (CRES), Greek National Standardization Organization (ELOT) and Institute of Solar Technology (IST). (Ministry of Development), companies acting in the field of standardization, members of the Greek academic society (Universities, Research Centers), existing and potential customers. The workshop has been divided in two main parts, dealing with the National Implementation Strategy for Solar Thermal Promotion and the role of Certification to the promotion of Solar Thermal Products.

- A workshop organized in Cyprus, aiming to promote the Solar Keymark Scheme and highlight the potential impact to the market broadening.
- Through these actions, relevant material to the Solar Keymark Scheme promotion has been developed by the Laboratory staff, and provided to the participating people, including the SK brochure as well.
- Several meetings with the public authorities and government stakeholders, in order to promote SK and the idea of establishing links between certification and subsidies.
- Training seminars to the inspectors of Greek Certification Body (ELOT), in order to become familiar with the technical aspects involved in the certification of solar thermal products.

Remaining trade barriers at the end of the project

Regulation

- The Directive 2002/91/EC for energy performance in buildings has not yet been implemented, one has to note though that it is intended to be adopted by the near future. In the framework of this implementation, the prEN15316-4-3: “Heating systems in buildings - Method for calculation of system energy requirements and system efficiencies - Part 4-3: Space heating generation systems, thermal solar systems”, would also be adopted.
- Related to the previous point is the delay in the implementation of the new Greek regulation for rational use of energy and energy efficiency in buildings, which anticipates the study for the installation of solar thermal in a building.

Subsidies

- No barriers to trade related to testing

Testing

- No barriers to trade related to testing

Certification

- The SK for collectors is accepted in Greece
- The National Certification Scheme for Systems, is similar to the SK certification scheme for systems, without extra requirements. The only difference is the classification – labelling of

the systems according to their performance (A-B-C-D classification, similar to the household appliances labelling)

Action needed to overcome remaining trade barriers

Regulation

- Implementation of the Directive 2002/91/EC
- Publication and set in force of the Greek Regulation for rational use of energy and energy efficiency in buildings

Subsidies

- Subsidies to be linked to the energy output of the systems :
 - Based on certified test results for factory made systems
 - Based on measurements for large custom systems

Certification

- Further promotion of the use of the National Certification Scheme and of the Solar Keymark by assisting the Greek manufacturers and by adapting existing/futures subsidy requirements to these certification schemes
- Development of a national certification scheme for installers