

DENMARK

Status

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

Regulations

Building Regulation (general)

- There are no special rules/regulations for solar thermal systems/components in the building regulation. The general regulations for installations shall of course be followed (concerning e.g.: CE-marking, freezing risks, roof tightness, etc.).
- Compliance with national Danish regulation concerning water heaters (according to the Danish Standard DS 439:2000) shall be declared/proven. Until CE-marking of water heater tanks enters into force, the easiest way to do this is by obtaining a so called “VA-certificate” (this is however not obligatory). Contact point for VA-certification:
<http://www.etadanmark.dk/danish/va/frameset.htm> (in Danish).
- Compliance with national regulation concerning sub-components in the water installation (DS 439:2000) shall be declared/proven. Some sub-components (e.g. most valves and some pipes) need a “VA-certificate” - se list at: <http://www.etadanmark.dk/danish/nyheder/Dok2.pdf> (in Danish).
- Regulations related to the energy demand/use of the house: Savings of solar thermal systems are taken into account – as the Directive for energy performance in building has now been implemented – including a national calculation procedure for solar thermal systems in buildings based on the European draft standard: 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”.

Registration

- A solar system shall be registered to the local authorities. Having a solar thermal system may increase the “official appraised value”, and this value forms the basis for tax to be paid by the owner. This means that having a (registered) solar system may increase the tax to be paid – but normally this is insignificant.

Subsidies

- Subsidy schemes: None.
- Requirements for subsidy schemes: Not relevant.
- Contact point for application for subsidy: Not relevant

Testing

- No Danish test institutes are accredited to perform EN testing (of solar thermal products).

Certification

- Product certification: Voluntary national certification scheme for solar thermal products. The scheme accepts Solar Keymarked products with a few minor add-on requirements:
 - 5 years warranty for collector and tank
 - Manuals for user and installer shall be available in Danish language

- Installer certification:
 - Installers must be authorised to work with grid-connected water installation
 - Voluntary certification scheme for installers of solar thermal systems done by Technological Institute, see: www.kso-ordning.dk .
- No Danish certification body is empowered for Solar Keymark. However the certification department of Danish Standards have made arrangements with two foreign empowered certification bodies to do Solar Keymark inspection of solar collectors.
- Contact point for Danish certification:
 - Jan Erik Nielsen, PlanEnergi
 - jen@planenergi.dk
 - www.god-solvarme.dk

Insurance

- Insurance of the house could be affected by the installation of a solar thermal system – but normally this is not the case.

Others

- “Energy Labelling” of your house, giving an energy classification of the house and recommending the most economical investments in energy savings (Danish Labelling Scheme for Small Houses) shall be done every time the house is put for sale. The energy savings of a solar thermal system are taken into account in such a report using a very simple procedure.
- Recommendation/guidelines for installation of solar thermal systems are given in “BPS 94” including roof mounting, roof integration and roof penetrations. However these guidelines are not complete, as the e.g. do not cover mounting/integration/penetration on/in/of all roof types.
- Large (solar) heating plants have the possibility to sell CO₂ emission allowances
- No national energy labelling scheme for hot water tanks.

Actions taken in the project period

The actions taken within the project period for:

- co-ordinating the Danish requirements in regulations and subsidy schemes with European standards and Solar Keymark certification
- implementing - with respect to solar thermal systems - the European directives on energy performance of buildings and energy labelling of hot water tanks

are listed below:

Regulation

- As the final European standard¹ for calculation the influence of solar thermal systems on the energy performance of the buildings is still not published, no action could be taken with respect to this.

Subsidies

- Possibilities for implementing a “white certificate” scheme for domestic solar thermal systems connected with the obligation of the energy distributing companies to save a certain amount of

¹ A draft European standard procedure for calculation of the influence of solar thermal systems on the energy performance of buildings (prEN15316-4-3) has been prepared by CEN and implemented in the Danish building code. A revised version of this draft has now been approved as an EN, publication is expected November 2007.

energy has been investigated. It showed up not to be possible as the value of the “white certificate” of a domestic solar thermal system so far is too low compared with the costs for administering such a scheme. However, most energy distributing companies now see the benefits of solar thermal, and they promote solar thermal on their web sites and in their customer correspondence.

Testing

- Still no accredited testing of solar thermal components and systems in Denmark. But assistance has been given to the Danish manufacturers in the communication process with test labs from other countries. Now 3 Danish manufacturers have performed EN testing in order to have Solar Keymark on their products.

Certification

- The voluntary national certification scheme for solar thermal components and systems has been organised to promote the Solar Keymark by:
 - assisting the Danish manufacturers in the communication process with certification bodies in other countries
 - establishing agreements between a Danish Solar Keymark inspector (Danish Standards Certification dept.) and the empowered certification bodies in other countries. Now no need for foreign inspectors travelling to Denmark.
- The installer certification scheme refers now to Solar Keymarked products.
- Danish manufacturers now have Solar Keymarked products.

Insurance

- It was found that only in very rare cases the installation of a solar system affected insurance fees.

Others

- Participation in the work on the energy labelling scheme for (solar) hot water tanks according to Mandate 324.
- Work shops in connection with the general assemblies (March 2006 and March 2007) of the Danish Solar Heating Association were arranged, disseminating status and results of the project to the members of the association.
- Link to the Solar Keymark website placed at the national solar thermal web portal (www.altomsolvarme.dk).

Remaining trade barriers at the end of the project

Regulation

- The final European standard for calculation the influence of solar thermal systems on the energy performance of the buildings is still not implemented in the national procedures used for calculating the energy performance of buildings. This will be done as soon as possible after the standard is published (publication expected November 2007).
- Until CE-marking of water installation components (e.g. water heater tanks) enters into force, compliance with the national Danish regulation according to DS439:2000 must be declared/proven; for some components a national VA-certificate is obligatory.

Subsidies

- No barriers to trade related to subsidies.

Testing

- No barriers to trade related to testing.

Certification

Solar Keymark is accepted in the national Danish certification scheme. However a few "add on" requirements exist:

- 5 years warranty for collector and tank
- Manuals for user and installer shall be available in Danish language

Insurance

- No barriers to trade related to insurance.

Others

- No other barriers to trade identified

Action needed to overcome remaining trade barriers

Regulation

- Implement the final European standard for calculation the influence of solar thermal systems on the energy performance of the buildings in the national procedures used for calculating the energy performance of buildings. This will be done as soon as possible after the standard is published (publication expected November 2007).
- Support CE-marking of water installation components.

Subsidies

- No actions needed.

Testing

- No actions needed.

Certification

The few "add on" requirements in the national voluntary certification scheme (compared to Solar Keymark): "5 years warranty for collector and tank" and "Manuals for user and installer shall be available in Danish language" is not seen as barriers to trade as the certification scheme is voluntary and it is anyway only some minor paperwork to be done. No actions needed.

Insurance

- No actions needed.

Others

- No other actions needed.