

## Initial country report: DENMARK

The situation in Denmark with respect to requirements in regulations and subsidy schemes is briefly described and then followed by a list of actions proposed to make “European co-ordination” of these requirements.

### ***Background/status***

A brief description of the most important elements in Danish regulations and subsidy schemes related to solar thermal products is given here below.

### **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.).
- 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.

#### Safety control

- Collectors having a  $PS \times V^1$  value < than 200 bar litres are in the control category 3 which means that the manufacturer (or others) shall check/control and declare the pressure limit (and test to 1.3 times this max. operation pressure. + documentation and labelling.

### **Subsidies**

- Subsidy schemes: None.
- Requirements for subsidy schemes: Not relevant.

### **Testing**

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

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<sup>1</sup> PS: Maximum operation pressure, V: Volume/fluid content

## **Certification**

- Product certification: Voluntary national certification scheme for solar thermal products done by PlanEnergi, see [www.god-solvarme.dk](http://www.god-solvarme.dk) (website in Danish). The scheme accepts Solar Keymarked products.
- Installer certification: Voluntary certification scheme for installers of solar thermal systems done by Technological Institute, see: [www.kso-ordning.dk](http://www.kso-ordning.dk).
- No Danish certification body is empowered for Solar Keymark. However the certification department of Danish Standards are right now making arrangements with foreign empowered certification bodies to do Solar Keymark inspection of solar collectors.

## **Insurance**

- Insurance of the house could be affected by the installation of a solar thermal system – but normally this does not cause any problems.

## **Others**

- It is possible to have an official “Energy Report” 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). This report shall be made when the house is sold. 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 CO<sub>2</sub> emission allowances
- No national energy labelling scheme for hot water tanks.

## ***Actions needed***

The actions needed 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**

- Implementation of the coming revised European standard<sup>2</sup> for calculation the influence of solar thermal systems on the energy performance of the buildings in the procedures used for calculating the energy performance of buildings Danish in the national building regulation.

## **Subsidies**

- Get inspiration from other countries concerning effective subsidy schemes.

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<sup>2</sup> 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. It is right now being revised due to the comments from public inquiry. When the final standard is available it will/should be implemented.

- Investigate possibilities for implementing a “green heat certificate” scheme allowing also small solar heating systems to sell CO2 emission allowances. This certification should make use of the European standards and the Solar Keymark.

## **Testing**

- Promoting the use of EN testing to the Danish manufacturers by offering assistance in the communication process with test labs from other countries (as there is no accredited testing of solar thermal components and systems in Denmark).

## **Certification**

- There is a voluntary national certification scheme for solar thermal components and systems, and it is proposed 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 and the empowered certification bodies in other countries in order to avoid the need of having foreign inspectors travelling to Denmark and again to ease the communication
- The installer certification scheme should refer (also) to Solar Keymarked products.

## **Insurance**

- Make agreement with insurance company association: Certified solar systems (installed by certified installers) should not affect insurance fees.

## **Others**

- Participate in the work on the energy labelling scheme for (solar) hot water tanks according to Mandate 324.
- Make national work shops, disseminating status and results of the project to the interested parties / target groups not already involved directly in the project.
- Promoting Solar Keymark from the national solar thermal web portal.