



## Solar Thermal in the Revision of the Energy Statistics Regulation

### Introduction

The European Solar Thermal Electricity Association (ESTELA) and the European Solar Thermal Industry Federation (ESTIF), respectively representing the solar thermal electricity and the solar thermal for heating and cooling sectors, welcome the European Commission proposal of a Regulation amending Regulation (EC) No 1099/2008 of the European Parliament and of the Council on energy statistics, as regards the updates for the monthly and annual energy statistics, as an opportunity to bring much needed clarifications to a very important piece of legislation, and to redress existing shortcomings in the text.

Energy statistics represent a crucial issue in the light of the current developments of EU policies in the field of climate and energy. Key legislation underpinning the energy sector, such as those proposed under the Clean Energy Package, must rely accurate energy data, representing the reality of the energy sector as closely as possible. Accordingly, the regular updates should be an opportunity for EU statistics to better portray the energy sector.

### Solar Thermal in the Regulation

The current Regulation 1099/2008, in its Annex B on Annual Energy Statistics (point 5.1.3.2), as amended most recently in 2014, bundles together, under the denomination of 'Solar Thermal', both solar thermal-electric plants, and 'equipment for the production of domestic hot water or for the seasonal heating of swimming pools'.

The new Commission proposal, under point 3.5.3.2, defines 'Solar Thermal' as follows:

*Heat from solar radiation (sunlight) exploited for useful energy purposes. By the way of example, this includes solar thermal-electric plants and active systems for the production of sanitary hot water or for space heating of buildings. This energy production is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collectors losses. Solar energy captured by passive systems for heating, cooling and lighting of buildings is not to be included; only solar energy in relation to the active systems is to be included.*



## Key message

Although the Commission proposal brings some concrete improvements to the original text, for instance including space heating under the solar thermal for heating and cooling technology, the solar thermal electricity and solar thermal for heating and cooling industries believe the difference between those two technologies, should be better represented in the Regulation, by having two separate, more accurate definitions.

The point 3.5.3.2 should be split in two:

- A point 3.5.3.2 on Solar Thermal Electricity
- A point 3.5.3.3 on Solar Heating and Cooling

The rationale behind this differentiation lies in the core difference between those two technologies, one inherent to the electricity sector, the other to the heating and cooling sector. Solar thermal electricity and solar thermal for heating and cooling do serve different purposes, have different applications and markets. Even if the underpinning technological principle is similar, the industry value chains are completely different, as it is demonstrated by the existence of two separate European industry associations, with almost no overlapping membership.

## Our proposal

The following two definitions should be applied in the revision of the Regulation.

*3.5.3.2. Solar thermal electricity (or concentrated solar power): solar thermal energy from solar radiation (sunlight) exploited for power generation. This includes solar thermal-electric plants. This energy production is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collector's losses.*

*3.5.3.3. Solar thermal for heating and cooling: Solar thermal heat from solar radiation (sunlight) exploited for heating and cooling purposes. By the way of example, this includes active systems for the production of sanitary hot water, space heating of buildings, industrial process heat or district heating. This energy production is the heat available to the heat transfer medium, i.e. the incident solar energy less the optical and collector's losses. Solar energy captured by passive systems for heating, cooling and lighting of buildings is not to be included; only solar energy in relation to the active systems is to be included.*



Moreover, the separation between solar thermal electricity and solar thermal for heating and cooling should be reflected in the whole document, and anytime solar thermal is mentioned, a clarification should be made to which one it is referring to in the particular case:

- Point 3.5.3: Solar is a product aggregate equal to the sum of solar photovoltaic, ~~and~~ solar thermal *electricity and solar thermal for heating and cooling*.
- Point 3.2.10.7. Solar thermal *electricity*
- Point 5.2.1.6. Solar thermal *electricity* / 5.2.1.7 *solar thermal for heating and cooling*
- Point 5.2.9.6. Solar thermal *electricity*

#### ANNEX C

- Point 2.2.13. Net electricity production from solar thermal *electricity* installations

### Additional comments

The following point regarding solar thermal for heating and cooling should be adapted as such:

*5.2.10.1. Solar collectors surface: The total surface installed of solar collectors is to be declared. The solar collectors surface shall relate to the production of solar thermal heat; solar collectors surface used for electricity generation are not to be reported here (solar PV and concentrated solar power). The surface of all solar collectors; glazed and unglazed collectors, flat-plate and vacuum tube with a liquid or air as the energy carrier shall be included. A conversion factor for the installed capacity may be applied, using a reference of  $1\text{m}^2 = 0.7 \text{ kWth}^1$ .*

### More Information and Contacts

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<sup>1</sup> Following method adopted by IEA-SHC and several countries : [http://www.iea-shc.org/Data/Sites/1/documents/statistics/Technical\\_Note-New\\_Solar\\_Thermal\\_Statistics\\_Conversion.pdf](http://www.iea-shc.org/Data/Sites/1/documents/statistics/Technical_Note-New_Solar_Thermal_Statistics_Conversion.pdf)