Results and Perspectives for CSTS Market Development In France

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CSTS market is developed since a long time in France, and a national strategy has been developed since 1999 to now

A efficient public subsidies scheme for CSTS (state and local authorities) with specific criteria, since 1999 in the frame of Plan Soleil:

- **To decide**: subsidies 80 % of pre-diagnostic (simple technical survey) in limits of 3 800 €

- **To invest**: up to 350 euros/m² (solar collector) from ADEME incentive in 2007 + additional regional contributions (in the limit of European State Aid limits) = subsidies from 40 to 80 % of the installation costs (limits in 650 €/m²)
Market review in France

- CSTS market is already and relatively “well” developed
- 30 000 m² / 21 MWth newly installed in 2007 (expected). 11.5% of the annual ST metropolitan market 2007
- In total, since 1999 to 2007 with the “Plan Soleil”, 93 000 m² (65.1 MWth) have been installed for CSTS
- CSTS represents 12.4% of the ST metropolitan market (753 700 m² installed from 1999 to 2007).
Energy law voted in 2005, with a clear target about renewable heating (declined with solar thermal, with a target about CSTS by 2010 and 2015)

New thermal regulation 2005 (effective since October 06): new requirements concerning reduction of energy consumption for hot water production would progressively lead to a greater use of solar equipments

The future thermal regulation 2010, (-20 % on the reference RT 05). The new requirements concerning reduction of energy consumption would lead to a greater use of solar equipments
The future thermal regulation 2012: 50 kWh/m² of housing for new building, would put solar equipment for hot water as a standard of the art for the building sector.

The thermal regulation for existing building (attended in 2008 or 09), would also lead to a greater use of solar equipments in the existing and refurbishing MFH.
Perspectives for CSTS market

Impact of thermal regulation (2010 and 2012), with stricter requirements in new buildings for hot water production

=> development of the share of CSTS for new building (until 50 % of new dwellings after 2010)

=> The market should rise quickly and strongly, up to 100 000 m² (70 MWth) per year on the segment of CSTS for new MFH
Existing building continue to be a main target for CSTS, in link with refurbishment.

CSTS market depend of the policy (application of an thermal regulation for existing building) and subsidies for voluntary installation (CSTS would be not an obligation of Thermal Regulation).

=> Estimated market on existing building: 50,000 to 100,000 m² (35 to 70 MWth) of CSTS newly installed per year after 2010.
Perspectives for CSTS market

- The CSTS market after 2010 in France, could represent 150,000 m² (105 MWth) newly installed per year, equivalent to 100,000 dwellings of MFH equipped with CSTS per year.

- In 2020, CSTS could represent at least 20 to 30% of the annual global solar thermal market in France.
Equivalent to **150 000 dwellings in MFH equipped with CSTS per year in 2020**, the equivalent market would be to **225 000 m² installed per year (157,5 MWth / year)**.
Supply side on French level

Current situation about quality promotion on CSTS:

- Providing a « Garantee Solar Results » for each one CSTS applications

- The challenge is not only to have a well designed CSTS installation, but also to keep the performance at the good level on a long time

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Supply side on French level

Current situation about technical activities:
- Development of a qualification for CSTS designer (formless than 100 now, to thousands)
- Develop the solar « culture & experience» of the maintainer
- Development of a collective experience about CSTS:
  - Share the expertise down/up & up/down,
  - Done survey on the market,
  - Solving the problems (technicals, juridics, ...) at a global level

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Ademe has produced in 2007, a referential of training for designer of CSTS. Training sessions of trainers are previous for 2008 and after.

The qualification and certification (OPQIBI) of designer is already apply, without a big success. It should be revised in the future.

In the framework of Qualisol (quality scheme for installers, 12 000 at the end of 2007), a referential of training could be developed on CSTS in 2008, also for the maintenance.

Architects are not yet focused for training plan.
Supply side on French level

Current situation about political & awareness activities:
- Some Regions are very pro-active for CSTS development, specially for social housing and touristic sector
- Guidelines are developed at national level:
Current situation about political & awareness activities:
Enerplan and Ademe are present on key events (like annual social housing congress, hotel fair, ...)
Regional campaings are done (Alsace, Rhône Alpes, Paca, LaRo, ...)
Supply side on French level

Current situation about political adn awareness activities:

- Survey trip and meeting for key decidors in building
- Events for inauguration of new CSTS

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Current situation:

- The housing sector is moving on CSTS. Each one (more or less) has at least one CSTS project for a new building. A few group of social housing actors generalise CSTS when is it feasible (economically and technically)
- The private sector starts on CSTS, where the political pression is strong (obligation of solar hot water to have the permit building) and/or to produce a better building offer for energy efficiency
- The planners/designers still to be late with the demand side
With the perspective of thermal regulation of 2010, the building actors anticipate to have experience on CSTS.

The Labels (high efficiency and renewable, Effinergie equivalent to passive house, ...) should be very positive for CSTS in new building. Labels prepare the next standards.

A thermal regulation should be introduced for the exiting building. It should be a first step on the far way for the thermal renovation of the stock.

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The financial condition of the development of CSTS is a key question for medium term.

The quality schemes (training, GRS, ...) is a high priority for a sustainable market development of CSTS.

Campaining at national and regional levels still to be necessary for a long time, in synergy with ESCO and utilities.

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