

### “100 solar hotels” project, France



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#### Presentation

As part of its commitment to supporting renewable energies, Accor is carrying out a project called “100 solar hotels”.

The goal is to equip about a hundred of hotels with solar panels most of them from Etap Hotel and hotelF1. Those infrastructures are being installed in France in partnership with the ADEME (the French Agency for environment and energy). At the end of 2009, 99 hotels were equipped with solar panels in France, Morocco, Brazil, China and Australia.

#### Implementation and results

The solar captors are used to **produce hot domestic water**, covering on average 40 to 60% of the needs each year.

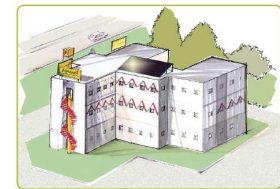
If the principle of thermal solar is simple, its application requires tailored technical solutions (choice of materials, regulation systems, and circulation pumps resistance).

Accor set up **an efficient cooperation with CLIPSOL, a company which will monitor the whole process of the installation**. The cooperation will allow quick progress on the following aspects of the project:

- ▶ Maintenance: finding a solution to avoid overheating during summers;
- ▶ Efficiency: warming the hotel’s hot water closed-loop system through solar energy;
- ▶ Economy: cutting costs with pre-made structures for the panels;
- ▶ Organization: keeping things simple by being Accor’s single contact.

To date, around thirty hotels have been equipped and another twenty are being studied. Most of them are equipped with the solution conceived with CLIPSOL. Some of the installations will allow for the implementation of other technologies (vacuum tubes, solar actuated drain systems...).

The hotel guests will be informed about how much solar energy is produced overall.



#### Financial aspects

##### Investment

The call for tenders helped to reduce investment costs. However, this reduction is limited by the geographical scattering of the hotels, their architectural differences (roofs, space organization...) and the time needed to install the system. The price per m<sup>2</sup> hence varies depending on the hotels. On average, it should be around 800 €/m<sup>2</sup>.

##### ADEME subsidies

Since 2009, they have funded about 50% of the total investment.

##### Energy savings

They vary depending on sunshine levels. In Lyon, productivity is about 570 kWh/m<sup>2</sup>/year, which makes for an annual saving of 28 €/sq. meter. Therefore payback time remains between 10 and 15 years, even taking into account ADEME subsidies.

#### Outlook

- ▶ Raising guest awareness on thermal solar energy;
- ▶ Experience feedback shared with the ADEME on innovative systems.