



ST - ESCOs



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ST-ESCOs Newsletter

ST-ESCOs Project - General

The **objective** of the project is to promote the creation and development of Solar Thermal Energy Service Companies (ST-ESCOs) and, by this, to assist in accelerating the growth of the solar thermal market in Europe.

What is an ESCO and what an ST-ESCO

According to the "Proposal for a Directive of the European Parliament and of the Council on energy end-use efficiency and energy services" an "**Energy service company**" (**ESCO is: a company that delivers energy efficiency measures in a user's facility, and accepts some degree of technical and sometimes financial risk in so doing. The payment for the services delivered is based (either wholly or in part) on meeting quality performance standards and/or the achievement of energy efficiency improvements.**

It is also interesting to see the (following) definition of "Energy Service" from the same source since it offers some clarifications on the same issue.

"Energy Service": *the physical amenity for energy end-users derived from a combination of energy and energy using technology and/or the operations, maintenance and control necessary to deliver the service (examples are indoor thermal comfort, lighting comfort, domestic hot water, refrigeration, product manufacturing, etc.). Energy services meet quality performance requirements and improve energy efficiency, are contracted for a fixed period of time and paid for directly by the customer or agent who benefits from them.*

An ESCO is capable of offering a "one stop shop" service to the client covering typically the following stages of a project:

- **Project Preparation**
- **Project Funding**
- **Design and Construction**
- **Operation and Maintenance**

Here it is useful to make some clarifications and restrictions that are specific to the **ST-ESCOs** (and the nature of their contracts) that the current project should deal with. More specifically, the **ST-ESCOs** agreements that we are looking for



should have (among others) the following characteristics:

1. Although it is possible for the End-User to undertake a part of the initial investment, this has to be restricted (e.g. 20%).

2. Apart from the possible (restricted) initial payment, the End User pays for the energy that receives. The ST-ESCO has responsibility to provide the heat in the price agreed with the End User; this price does not depend on the solar gains. However, the price (as it has to be defined in the contract) may be subject of some restrictions that the End User has to fulfil (like a minimum load).
3. The plant to be built according to an ST-ESCO agreement, may include some energy saving measures or some energy sources other than solar; however, the percentage of the thermal load covered by the solar plant, at least in the case of hot water production, has to be important (the exact minimum percentage is still to defined and may depend on the final use; a possible value could be 50%).



The actual **problem faced** by this project is that although solar thermal applications are technologically mature and economically advantageous in the long term, they have still little penetration in the European market, with respect to their potential. One of the main reasons is that end users (especially large ones) are still

reluctant to face the high initial investment cost and doubtful for the reliability and durability of solar installations.

The **ST-ESCOs**, by **selling the solar energy (and not the solar plant)** at a competitive price and by carrying out the plant's operation and maintenance can remove completely the above mentioned barriers, thus opening the way for a rapid expansion of solar thermal installations throughout Europe in all potential sectors (residential, services and industry), both private and public.

However, the development of European ESCOs in general is still in its infancy and, to what concerns in particular the solar thermal sector, only sporadic (and not always successful) initiatives have been taken.

This project aims to found and foster the sector of ST-ESCOs by carrying out the following work:

- Elaborate a **market** and framework conditions **analysis** (learning from the past attempts), identify the potential and the most promising sectors for actions.
- **Transfer the know-how** from successful experiences (e.g. in Austria) among the partners.
- **Inform stakeholders**, bring them together and seek for ST-ESCOs establishment.
- **Provide** valuable **tools** for ST-ESCOs: a complete **Guide** with financial, technical and contractual aspects and a user-friendly **Software** package for the quick assessment of possible applications.
- **Elaborate** and propagate concrete

suggestions for necessary ST-ESCOs **support measures** both at EC (Directive) and National level.

- **Disseminate the results** (by means of a ST-ESCOs web site, brochures, conferences etc.) and seek for future support and ST-ESCOs network creation.
- **Prepare detailed, real cases of ST-ESCOs agreements** and try to implement them in



practice. In fact, the expected final outcome is to sign at least one new ST-ESCO agreement for each participating country.

The actions listed above will result in having (among else): a) well informed/instructed stakeholders stimulated on ST-ESCOs benefits b) progress in creating a friendly framework for the ST-ESCOs future development and c) a founded network of pilot ST-ESCOs.

It is expected that the current project will have a high replication potential in the participating countries as well as in the rest of Europe and will contribute substantially to a quick and healthy expansion of the European Solar Thermal sector.

Partners

The formulated consortium consists from well experienced partners on their fields from various

sectors and countries assuring the successful implementation of the project.

The Centre for Renewable Energy Sources (CRES, Hellas) is the leader of the project. The rest of the project partners are:

- Hellenic Association of Solar Industries (EBHE) - Hellas
- Graz Energy Agency (GEA) - Austria
- Solar Thermal and ESCO company (NAHWAERME) - Austria
- Technical University of Milan (POLIMI) - Italy
- Italian Association of Solar Industries (ASSOLTERM) - Italy
- Agencia de Gestión de Energía de la Región de Murcia (ARGEM) - Spain
- Design and Consultant company on Solar Thermal and other Renewables (AIGUASOL) - Spain
- Catalanian Association of Solar Industries (APERCA) - Spain

Kick off meeting

The kick off meeting of the project was held in Madrid on the 24th and 25th of February, 2005 in the Ifema exhibition centre. The meeting was in parallel with the Energy and Environment International Trade Fair GENERA 2005 along with other parallel events. With this opportunity the project was announced and presented to other interested parties. During the meeting partners introduced themselves, project goals and work program where presented and clarified and a more detailed plan of work was determined.

Work Progress

The project is on its early stage and preparatory work has been carried out up to now, mainly on Work Package 1 (State of the art and market analysis). This includes:

- Short Report with ST-ESCOs framework situation in each country. By its nature the report will address all target groups for ST-ESCOs.
- Market Analysis report. Apart from the main sectors potential identification, the following will be included: description of best-practice examples, identification of key-aspects with respect to contractual, technical and risk management issues.
- Info-Sheet with 5 most succeeded cases of solar thermal energy contracting in Europe.
- Initialisation of ST-ESCOs Website.
- Project presentation Leaflet.



For further information please contact :



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Supported by the
European Commission under the
Intelligent Energy - Europe
Programme