

ST-ESCOs Project



1. ESCO Europe 2005

On the 4th and 5th of October, 2005 the second European ESCO Conference was held in Vienna, Austria.

The scope of the conference was to gather stakeholders from all the potential sectors (existing ESCO's, policy-makers, experts, clients, members of the financial community) and to discuss the opportunities and strategies to promote the ESCO industry in Europe.

The implementation of the Kyoto protocol and the EU Emissions Trading System were identified as important opportunities for the market development, along with the restructuring and liberalization of electricity and gas markets in Europe. The proposal for a directive on energy end-use efficiency and energy services along with the "white certificates" scheme is considered important for the ESCO industry in the EU.

The main barriers that inhibit the wider development of Energy Performance Contracting and of the ESCOs were identified and are summarized herewith:

- Low awareness, lack of information and skepticism at the demand side of the market for energy services
- Limited understanding of energy efficiency and Energy Performance Contracting
- Small size of projects
- High technical and business risk perception
- Insufficient legal and regulatory frameworks
- Measurement and verification protocols are not understood
- Lack of motivation
- Limited government support

During the conference the current status of the ESCO industry for all the European countries was analyzed. The majority of ESCO projects in Europe have been undertaken in the public sector. The most common projects undertaken are in co-generation, public lighting, heating, ventilation, air-conditioning and energy management systems.

Source: <http://www.eva.ac.at/service/veranst/esco2005.htm>

2. St Escos project dissemination activities

During the last semester of 2005 several actions were taken in order to raise stakeholders' awareness regarding the project. Interviews and door-to-door contacts were the first promotional steps. Workshops that took place in all the participating countries (Hellas, Austria, Spain, and Italy), issued both for end-users and developers followed in order to identify the specific needs of each sector and to provide specialized information. The project partners came in touch with almost 600 people from all the sectors (end-users, possible ESCO developers, financial institutions, technical actors, policy makers etc.).

The main problems identified were the lack of information regarding ST-ESCOs in general and the insufficient legislative frameworks concerning contractual and financial aspects. The project was also presented in relevant conferences held in Italy, Austria and Spain by the participating partners.

3. Largest solar thermal plant in Austria

There are currently 3 million m² of installed solar collectors in Austria. Energy savings are estimated equal to 150.000 tn of fuel oil and the emissions of 496.000 tn of CO₂ are avoided.

Today, the district heating network of the city of Graz is already fed by two solar thermal plants operated by nahwaerme GmbH and constructed by S.O.L.I.D. GmbH. In 2006, a third plant of this kind will be added in order to supply heat through solar energy directly to the Graz district heating network.

The solar collectors will be installed on the roofs of the local waste processing company AEVG and the nearby district heating power station FHKW. The system will be therefore the largest solar thermal plant in Austria, totalling some 5,900 m² of flat plate

collectors.

This new plant will deliver some 2,500 MWh thermal energy per year to the district heating net. So far, this energy is generated by a gas turbine plant. In addition, the plant will save the emissions of at least 400 tons of CO₂.

Together with the solar thermal plants that already exist or are currently in the planning phase, a collector area of some 10,000 m² will supply solar energy to the district heating network of the city of Graz. Thus, the plant will be an integral part of the innovative concept of supplying a large city (Graz has about 250,000 inhabitants) with solar thermal energy.

The plant at AEVG / FHKW will be operated with nahwaerme GmbH acting as ESCO. It's the ESCO's responsibility to guarantee the sound operation of the system, as their revenue depends on the amount of kWh sold! Moreover, in this case the solar thermal energy price has to be competitive with the fossil fuel price.

The concept of large solar thermal systems feeding into the district heating net has a high replication potential – it can easily be adapted to other cities. This plant is attracting national and international interest; further discussions about other similar plants in Austria are under way.

4. Green Paper on Energy Efficiency

On the 9th of November 2005 the Green Paper on energy efficiency was published. According to numerous studies EU could save at least 20% of its present energy consumption (equivalent to €60 billion per year or the present combined energy consumption of Germany and Finland) in a cost effective manner.

This Green Paper seeks to launch a process to harness the saving potential in practice and to identify and subsequently implement as many cost-effective measures as possible, in order to achieve as much as

20%, by actions taken on European, National and local level. Among others, it is reported that the energy service companies need policy support in the form of help for the dissemination of their activities and access to finance, because the development of the ESCO industry will greatly contribute to the implementation of additional cost-effective projects. ESCOs supply efficient solutions and are getting paid by the energy savings.

The current Green Paper is available online at:

http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2005/com2005_0265en01.pdf

5. European Commission Communication

On December 7, 2005 the European Commission announced "work towards a proposal for Community legislation in 2006 to encourage the use of renewable energy, including biomass, for heating and cooling". The main aspects of the future Legislation are already discussed in the European Parliament. One of the main goals is that 25% of the consumed energy on heating and cooling should come from renewable energy sources.

Source:

http://www.estif.org/index.php?id=46&backPID=141&pS=1&tt_news=57

6. Recommendation for second reading on the Council common position

The proposed directive on energy end-use efficiency and energy services is on its final stage of development. On the 30th of November 2005 there was a recommendation for second reading on the council's common position. Several amendments have been adopted on the proposal. One of the main aspects is the promotion of energy services and the creation of stronger incentives for the demand side. There is also a slight change on the national savings target set by the

initial proposal. Member States shall adopt the directive and aim to achieve an overall national indicative energy savings target of 6% for the sixth year of application of this Directive, to be reached by way of energy services and other energy efficiency improvement measures, instead of the 11,5% for the ninth year that was originally proposed. On the 6th of December 2005 Council and Parliament reached a compromise agreement on the directive. The agreement was sealed by a Parliament vote on 14 December.

7. Asian Energy Week

On 4-7 April 2006 the conference Asian Energy Week will be held in Beijing, China. It is a conference that encompasses 4 key events that come together to form a complete energy efficiency conference, covering all the aspects affiliated with energy efficiency. The conference has a significant importance for the ESCO industry in Asia, as one of the events encompassed is the ESCO Asia conference.

International companies and important speakers will participate and it is expected that over 1000 people will participate in the conference.

Key strategic insights will be provided on the technologies and trends shaping future electric, water and gas utilities.

Conference website:

<http://www.asianenergyweek.com/>

8. Dissemination activities in Italy

The first dissemination activities implemented on National scale by POLIMI for raising stakeholders' attention on ST-ESCO and creating the conditions for further awareness activities are:

- Participation to: **FIRST EUROPEAN Energy Management Conference**, 23 - 24 November 2005, Milano, ST-ESCOs Poster presentation

- Participation to: **Sinergy 2005** 9-11/10/2005, Rimini – International energy forum. ST-ESCOs presentation (by Dario di Santo, FIRE)
- Participation to: **Fiera Ecomondo 2005**, 26-29/10/2005, Rimini - Fiera Internazionale del recupero di materia ed energia e dello sviluppo sostenibile. ST-ESCOs presentation (by Claudia Vannoni)

Similar planned events:

- Participation to the seminar: "Il mercato dell'efficienza, le ESCO ed il servizio energia", organised by FIRE Federazione Italiana per l'uso Razionale dell'Energia, 16 dicembre 2005, Sala Manzoni, Palazzo delle Stelline Corso Magenta, 61 – Milano. Presentation by Dr. Mario Motta, Politecnico di Milano Dip. Energetica. Title: "Il progetto ST-ESCO".

The awareness activities planned at Italian level included group meetings and the organisation of four workshops. Each set of two workshops had as target respectively: end-users and ESCO's and technical actors. The two set of workshops have been held in Milan the 22th of November 2005 and in Naples the 30th of November 2005. The Italian partners chose to start the awareness activities with a different approach from what was planned originally in the project, since from the first contacts with the stakeholders it became clear that a strong introductory part on what solar thermal technologies are (for both end-users and ESCOs) and on what can be the role of an ESCO (particularly for technical actors and end-users) was needed. Moreover from the first contacts the need of a strong discussion and explanation of the contractual items, particularly for the public administration end-users in the form of call for tenders, arose. For this reason in all the workshops a large part of the presentations and of the open discussion was managed by a legal expert.

The workshops highlighted: the existence of a significant group of stakeholders interested in the concept and willing to participate in the project activities; the need

to open up, more than it has been done up to now, to private end-users; the need of a second round of group meetings or workshops on specific issues (legal, technical, financial) that each category of stakeholders highlighted as important. Moreover, the financial actors have up to now contacted individually and they will be invited to a group meeting only when the project framework and potential will be clear, possibly with some case studies.

Further Awareness activities have already been planned:

- Assolterm workshop: "The ST-ESCO model, an opportunity for the Italian Solar Thermal Industry". Audience: solar industry, planners and technicians. Planned for the end of January.



Further information:

<http://www.ficci.com/ficci/media-room/speeches-presentations/2005/june/june1-esco.htm>

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