

Solar Thermal Electricity Can be small scale Is human scale Comes from the sun Is forever and can be stored Looks like gold but is also green ls enormous Is beautiful





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# 2<sup>nd</sup> SOLAR THERMAL ELECTRICITY INDUSTRY FORUM

"Solar Thermal Power: From Legend to Reality" Syracuse, Sicily Hôtel des Étrangers 10 - 12 March 2011

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#### "Solar Thermal Power: From Legend to Reality"

olar Thermal Electricity is in the commercial ramp-up phase and the European Industry is the world leader in this sector, generating billions in investment and thousands of new jobs. With more than 800 MW installed and over 1000 MW under construction and development the sector has rapidly taken off, mainly in Spain and the United States. Expectations of

growth are highly promising in Southern Europe and MENA countries, Australia, South Africa and Asia,

In this context, and despite the economic and financial crisis, the European Industry is deploying efforts world-wide in order to be present in all regions with high potential for Solar Thermal Electricity generation. The 2<sup>nd</sup> STE Industry Forum organised by the European Solar Thermal Electricity Association (ESTELA) together with its partner in Italy, the Associazione Nazionale Energia Solare Termodinamica (ANEST), will focus on how to further develop both the EU and world markets. It will be an excellent opportunity to share concerns and seek solutions between main industry actors and decision makers. I am sure that the location of the 2<sup>nd</sup> Forum in Syracuse and the visit to the innovative Archimede solar plant will be an inspiration to advance Solar Thermal Power "From Legend to Reality".

#### José Alfonso Nebrera President of ESTELA



s the legend says, 2400 years ago in Syracuse, the philosopher Archimedes succeeded to win a battle against Rome by burning their wooden ships with a mirror that concentrated sun rays. Today, Syracuse is once again at the heart of solar technology, by hosting the 2<sup>nd</sup> Solar Thermal Electricity Industry Forum: the starting point of a new economy, a green economy boosted by solar thermal power which can produce thousands of MWs. As a matter of fact, Italy enjoys a

sunny weather, a strong industry, and active research activities. According to academic research, the solar thermal sector will create up to 20 000 new jobs by 2020, in Italy alone. Sicily's strategic position at the heart of the Mediterranean can be a bridge between Europe and Africa, helping Italian and European industries engage in the rise of the MENA market. Sicily represents a historical connection between Archimedes, the philosopher, and Archimedes, the first CSP plant built in Italy. Therefore this 2<sup>nd</sup> Forum is an excellent occasion for networking and sharing best practices, while also ensuring a participation of the STE industry in the future energy market.

#### Cesare Fera President of ANEST

# 2<sup>nd</sup> SOLAR THERMAL ELECTRICITY INDUSTRY FORUM "Solar Thermal Power: From Legend to Reality"

From 10<sup>th</sup> to 12<sup>th</sup> March industry, utilities, banks, public authorities and decision makers will meet at the Hotel des Étrangers in Syracuse to debate on the following topics:

#### st Session -**Deploying STE Plants: EU Policy Framework**

#### I. EU Emission Trading Directive: Opportunities for STE Innovation

Launched in 2005, the EU Emission Trading Scheme (EU ETS) is the first cap-and-trade system of allowances for emitting greenhouse gases in the world. The objective of emissions trading is to provide incentives for carbon reduction technologies. An estimated budget of EUR 6 bn is to be obtained through the selling of 300 allowances of the New Entrants Reserve to invest in these new technologies, amongst them STE innovative plants. The NER300 first call was launched in November 2010. The decision process involves, first, Member States and, secondly, the EIB which will evaluate the projects. Being the first call, the NER300 process involves many uncertainties. It must be closely followed by the STE industry as the ETS scheme could be one of the main sources of public financing for innovation in STE technologies.

#### II. EU RES Directive: How to Meet Targets and Increase Trade

The new RES Directive establishes binding targets for all Member States to accomplish the goal of increasing the share of renewable energies in the EU up to 20% by 2020. The Directive became effective on 1st of January 2010 and provides the legislative framework for the Members to meet their mandatory targets. Both the National Action Plans delivered by the Member States and those delivered by their corresponding associations set an optimistic horizon to the fulfillment of the goals.

STE has been included in the national plans of 6 countries (Spain, France, Italy, Portugal, Greece and Cyprus). According to them, an STE capacity of over 7GW is expected in the EU by 2020. The associations participating in the REPAP project, supported by the European Commission,

were slightly more optimistic with 9.1 GW. ESTELA's estimations, on the other hand, raise EU's STE potential for 2020 to 30GW.

#### III. Finalizing the Set-Up of the EU Internal Electricity Market

The full implementation of the RES Directive depends also on the finalization of the internal electricity market. In fact, in its Articles 6 to 10, the Directive encourages the trade and collaboration amona Member States in order to contribute to meet the 2020 targets. The Articles also support the development of trade and projects with non EU countries. These Articles are of paramount importance and ESTELA stresses the need for a harmonised implementation by Members States.

At the same time the success and market penetration of Renewable Electricity could be jeopardised by the lack of infrastructure both within the EU and with neighbouring countries. The STE Industry appeals for action at the EU level in order to finalize the set-up of the EU-internal electricity market. Crucial is also the planning and investment in the infrastructure that will be required at medium and long term to convey and exchange green electricity, for example HVDC lines to connect users with high solar potential areas over distances greater than 2000 kilometres.

# nd Session -

Concentrating solar rays require clear skies that are found in semi-arid hot regions that range in latitude between 15-40° North and South Two of the largest STE potentials of the world are in Southern Europe and in the neighbouring MENA countries, which are partners in the Union for the Mediterranean (UfM). The deployment of STE plants in UfM countries has spurned both public and private interest. The Mediterranean Solar Plan is amongst the programmes that raise highest interest. Financial institutions such as the World Bank and the African Bank for Development are very active. On 17th January 2011 the Secretariat General of UfM and the European Investment Bank have signed a Memorandum of Understanding (MoU) aiming at establishing a close collaboration in the Mediterranean region for renewable energy generation. Private companies and consortia are also undertaking feasibility studies; however, there is a common understanding that in addition to specific funding and financial instruments for plants and infrastructures, a regional framework leaislation must be established, at least for the regional market which will allow the exchanges.

## **Deploying STE Plants** in UfM Countries



#### th Session -**STE International** Dimension

The international scope of the STE technology is extensive, as is demonstrated by the various areas around the world considered to be the most favourable ones for STE tech nologies: North Africa, Southern Europe, Middle East, Southern Africa, Northwest India, Southern-Western United States of America. Mexico, Chile, Peru, Bolivia, Western China and Australia.

The US was a pioneer in STE and is building up its deployment in numerous States. Currently, the European industry has the technological leadership, and the North of Africa region has a high potential and a growing energy demand that is not yet being met. Lastly, areas such as South Africa, Australia, India and China are already developing projects for what can be a massive deployment of STE technology.

## Visits

- Thursday 10<sup>th</sup> March Visit to the Archimede STE plant in Syracuse
- Saturday 12<sup>th</sup> March Visit to Fresnel Experimental Area in Noto

## PROGRAMME

**VENUE:** Hotel des Etrangers Passeggio Adorno 10-12 96100 Siracusa - Sicilia - Italia

Wednesday 9 March	
18:00	Registration
20:00	Welcome reception
Thursday 10 March	
08:30	Registration
08:30-10:30	Visit to Archimede STE Plant in Syracuse (english)
11:00-13:00	Visit to Archimede STE Plant in Syracuse (Italian)
10:30-13:00	ESTELA General Assembly
13:00-14:00	Lunch
14:00	Welcome address
14:45-16:45	First Session: Deploying STE Plants: EU Policy Framework I. EU ETS Directive: Opportunities for STE Innovation
	II. EU RES Directive: How to Meet Targets and Increase Trade
16:45-17:15	Coffee break
17:15-18:45	III. Finalizing the set-up of the EU Internal Electricity Market
20:45	Gala dinner (by invitation only): <b>Convento del Ritiro</b>
Friday 1	1 March
08:30	Registration
09:00-11:00	Second Session: Deploying Plants in UfM Countries Progress in the UfM and the Mediterranean Solar Plan
11:00-11:30	Coffee break
11:30-13:00	Third Session: STE International Dimension
13:00-14:00	Forum conclusions and press conference
14:00-15:00	Lunch
15:00-17:30	Side events: Sfera Round Table CSP Standardization in Europe
17:30-18:30	ANEST Board
Saturda	y 12 March

Area in Noto