




DISTRES CONFERENCE



Conference on the promotion of
Distributed Renewable Energy Sources
in the Mediterranean region

December 11th - 12th, 2009

Nicosia, Cyprus

Venue: Cyprus Hilton hotel, Nicosia



1. Introduction

The European Union's (EU) main long-term goal in the field of energy is the conversion of the existing EU energy system, which is heavily dependent on fossil fuels, to a sustainable energy system based on differentiated energy sources of higher energy efficiency. This will enable the EU to face the challenges posed by the security of the energy supply and the climate change while, at the same time, increasing the competitiveness of the European energy industries.

Recent concerns on environmental protection and sustainable development resulted in the critical need for a cleaner energy technology. This is leading to the use of renewable energy sources (RES) and to an alternative to large scale source of energy production, known as distributed generation (DG) technologies.

Solar potential is an abundant commodity in the Mediterranean region and, therefore, RES-DG technologies for electricity production from solar energy (photovoltaic and/or solar thermal concentrating systems) are attractive. Nevertheless, such systems are not deemed commercially viable, neither profitable, unless strong subsidies are available within the Mediterranean countries. An immediate conclusion from concerted European research, however, is that solar thermal systems and PV systems are reliable and technically feasible for installation and operation in the Mediterranean region. It still remains, though, to develop strong financial incentives that RES-DG becomes viable on technical and economic terms. Persistent obstacles are the technology cost, the stability issue for isolated power systems and the Mediterranean countries energy policies.

A European Commission project, namely DISTRES (www.distres.eu), funded under the Framework Program Six International Corporation (INCO) aims (a) to promote the electricity generation from solar energy, photovoltaic (PV) systems and solar thermal systems, paving the way for pilot systems and products, (b) to produce capacity building methodologies and (c) to disseminate the results as widely as possible in the Mediterranean countries and in the EU. The results from DISTRES will pave the way for pilot systems and products, meeting different needs and climate conditions under the specific socio-economic conditions of Mediterranean countries and will contribute to the development of appropriate RES-DG policies.

2. Aim

The aim of the conference is twofold:

- To present the research and development effort undertaken by the various academic and research establishments for the future penetration of solar thermal and PV systems in the power electricity generation industry in European and Mediterranean countries
- To highlight the importance of research and development for the future of the electricity sector in Mediterranean region

3. Presenters and participants

The Conference will be open to academic and/or electricity related researchers to present their work in the fields indicated in section 4 below. Interested parties for attending the Conference might be end-users, regulators, manufacturers, investors, researchers and utilities from European and Mediterranean countries.

4. Conference subject areas

- CO₂ emission allowances and trading
- Deregulation and renewable energy sources integration in European and Mediterranean electricity systems
- Distributed generation
- Electricity storage systems
- Environment and climate change
- Green hydrogen production, storage and use
- Implications of renewable energy sources penetration in electricity networks
- Kyoto CDM and JI projects in European and Mediterranean countries
- Power system economics
- PV and solar thermal technology markets, financing schemes, business models and market entry strategies in European and Mediterranean countries
- PV systems
- Renewable energy sources technologies
- Renewable energy sources: capacities, targets, environmental issues and policies in European and Mediterranean countries
- Renewable generation scheduling
- Socio-environmental aspects of electricity generation from renewable energy sources
- Solar thermal systems for power generation

5. Conference committees

CHAIRS:

- Dr. Andreas Poullikkas, Electricity Authority of Cyprus, Cyprus
- Mr. Michele Genovese, European Commission
- Dr. Venizelos Efthimiou, Electricity Authority of Cyprus and Chairman of CIGRE National Committee of Cyprus
- Mr. Nicos Kouyialis, Electricity Authority of Cyprus and Chairman of IET Cyprus Network

CO-CHAIRS:

- Dr. Charalambos Malamatenios, Center of Renewable Energy Sources, Greece
- Prof. Dr. Rolf Wüstenhagen, University of St. Gallen, Switzerland
- Mr. Tony Matar, ALMEE, Lebanon
- Mr. Athanase Vafeas, Technofi, France

SECRETARY:

- Mr. Ioannis Hadjipaschalis, Electricity Authority of Cyprus, Cyprus

LOCAL ORGANIZING COMMITTEE:

- Mr. Ioannis Hadjipaschalis, Electricity Authority of Cyprus, Cyprus
- Mr. George Kourtis, Electricity Authority of Cyprus, Cyprus

SCIENTIFIC COMMITTEE:

- | | |
|--|-------------------------------------|
| • Bouzeriba Mohamed (Algeria) | • Karageorgis George (Cyprus) |
| • Chenak Abdelkrim (Algeria) | • Kyriakides Elias (Cyprus) |
| • Christodoulou Christodoulos (Cyprus) | • Kourtis George (Cyprus) |
| • Delenta Maria-Eleni (Cyprus) | • Kouyialis Nicos (Cyprus) |
| • Demokritou Philip (Cyprus) | • Malamatenios Charalambos (Greece) |
| • Dialynas Evangelos (Greece) | • Matar Tony (Lebanon) |
| • Efthimiou Venizelos (Cyprus) | • Menicou Michalis (Cyprus) |
| • Georghiou George (Cyprus) | • Petersen Kaj Leonhart (Denmark) |
| • Haddouche Amal (Morocco) | • Poullikkas Andreas (Cyprus) |
| • Hadjipaschalis Ioannis (Cyprus) | • Quadrado José Carlos (Portugal) |
| • Hamed Husein (Palestine) | • Rashed Bothayna (Egypt) |
| • Hatziargyriou Nicos (Greece) | • Vafeas Athanase (France) |
| • Hockerts Kai (Denmark) | • Wustenhagen Rolf (Switzerland) |

6. Keynote speakers

- ~ Mr. Michele Genovese, European Commission, *International Scientific Cooperation in FP7*
- ~ Mr. Thorsten Rauch, Project Manager, Abengoa, Spain, *Spanish experience with the first commercial solar power tower in the world and future solar thermal power perspectives*
- ~ Mr. Benedikt Pulvermuller, Project Development, Solar Millennium, Germany, *A success story of the first parabolic trough power plants in Europe: ANDASOL*
- ~ Mr. Tobias Mauelshagen, Project Manager, Solar Power Group, Germany, *Fresnel technology*
- ~ Dr. Mihai Paun, Eurelectric, Belgium, *The role of smartgrids in future power systems*
- ~ Mr. Solon Kassinis, Director of Energy Department, Ministry of Commerce, Industry and Tourism, Cyprus, *Steps in investing and promoting the establishment of a CSP plant in Cyprus*
- ~ Prof. Costas Papanicolas, President, Cyprus Institute, Cyprus, *Co-generation of electricity and water using CSP technologies*
- ~ Prof. Alexandros Mitsos, Massachusetts Institute of Technology, USA, *Optimal use of solar thermal energy for combined power generation and water desalination*
- ~ Dr. Venizelos Efthimiou, Network Development Projects Manager, Electricity Authority of Cyprus, Cyprus, *Deployment of a smartgrid*
- ~ Dr. Andreas Poullikkas, Research and Development Assistant Manager, Electricity Authority of Cyprus, Cyprus, *Future sustainable energy systems*

7. Conference websites

www.distres.eu

www.cyprusconferences.org/distres

8. Contact Information

Dr Andreas Poullikkas
Electricity Authority of Cyprus
P.O Box 24506, 1399 Nicosia
Cyprus
Email: apoullik@eac.com.cy

9. Location

The DISTRES Conference will take place in Nicosia, Cyprus on Friday the 11th of December 2009. Cyprus is the third largest island in Mediterranean, with a past history of 10,000 years. Cyprus is a modern country that effortlessly marries

European culture with ancient enchantment. One of the benefits of being a Mediterranean island is plentiful sunshine throughout the year, and Cyprus is no exception. In fact, Cyprus epitomizes the ideal weather of the region with sunny days and fine temperatures almost every day. Extremes of temperatures are rare, meaning Cyprus has something to offer every month of the year, whether it's swimming (as late as November) or enjoying cultural sites and festivals (all year long). The weather in Nicosia in December is mildly cold with average daily temperature around 13°C, and with an average of 3 rainy days for the month.

10. Official language

The official language of the Conference will be English. All papers are written in English and the Proceedings are published in English. The presentations will also be given in English.

11. Proceedings

Each registered participant will receive a CD containing the full papers being presented at the Conference.

12. Registrations

- Early registration (up to 15 Nov 2009): €220
- Late registration (after 16 Nov 2009): €250
(including Conference proceedings, Coffee breaks, 2 lunches and 1 dinner)
- Student early registration (up to 15 Nov 2009): €120
- Student late registration (after 16 Nov 2009): €150
(including Conference Proceedings and coffee breaks)

Conference registration available only online at: <http://cyprusconferences.org/distres/> after 1st June 2009.

13. Preliminary program

Day 1 – 11 December 2009	
08:00	Registration
	Opening Ceremony
09:00	Welcome notes <i>Chairperson: Nicos Papadopoulos</i>
	H.E. Mr. Antonis Paschalides, Minister of Commerce, Industry and Tourism H.E. Mr. Nicos Nicolaides, Minister of Communications and Works Mrs. Androula Kaminara, Head of the EU Representation in Cyprus Mr. Stelios Petrides, Acting Chairman of Cyprus Energy Regulatory Authority Mr. Harris Thrasou, Chairman of Board of Directors, Electricity Authority of Cyprus Mr. Andreas Theophanous, Director of Cyprus Transmission System Operator Dr. Venizelos Efthimiou, Chairman of CIGRE Cyprus National Committee Mr. Nicos Kouyialis, Chairman of IET Cyprus
09:35	Conference scope and objectives <i>Conference Chairman: Dr. Andreas Poullikkas</i>
09:40	Break

Preliminary program (continued)

Day 1 – 11 December 2009	
09:45	Plenary technical session
	Solar thermal power technologies for the Mediterranean region <i>Chairperson: Dr. Venizelos Efthimiou</i>
09:45	Moving away from sole dependence of fossil fuel-Spanish experience with the first commercial solar power tower in the world and future solar thermal power perspectives (invited speech) <i>T. Rauch, Abengoa, Spain</i>
10:05	A success story of the first parabolic trough power plants in Europe: ANDASOL (invited speech) <i>B. Pulvermuller, Solar Millennium, Germany</i>
10:25	Steps in investing and promoting the establishment of a CSP plant in Cyprus (invited speech) <i>S. Kassinis, Ministry of Commerce, Industry and Tourism, Cyprus</i>
10:45	Co-generation of electricity and water using CSP technologies (invited speech) <i>C. Papanicolas, Cyprus Institute, Cyprus</i>
11:05	Coffee
11:35	Plenary technical session
	Solar thermal power technologies for the Mediterranean region <i>Chairperson: Prof. Costas Papanicolas</i>
11:35	Fresnel technology (invited speech) <i>T. Mauelshagen, Solar Power Group, Germany</i>
11:55	Optimal use of solar thermal energy for combined power generation and water desalination (invited speech) <i>A. Mitsos, Massachusetts Institute of Technology, USA</i>
12:15	An overview of DESERTEC Foundation (Paper No. 181) <i>H. E. Nokraschy, DESERTEC Foundation, Germany</i>
12:35	Floating solar chimney technology for EU and Mediterranean countries (Paper No. 102) <i>Ch. Papageorgiou, National Technical University Athens, Greece</i>
12:55	Lunch

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14:30	Technical sessions														
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15:45	Coffee														

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16:15	<p>Keynote lecture <i>Chairperson: Dr. Charalambos Malamatenios</i></p> <p style="text-align: center;">The role of smartgrids in future power systems</p> <p><i>Dr. Mihai Paun, Eurelectric, Belgium</i></p>				
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18:00	End of Day 1				
20:00	Conference Gala Dinner				

Preliminary program (continued)

Day 2 – 12 December 2009																	
08:00	Registration																
08:45	Conference announcements																
09:00	Keynote lecture <i>Chairperson: Nicos Kouyialis</i> <p style="text-align: center;">Deployment of a smartgrid</p> <i>Dr. Venizelos Efthimiou, Chairman of CIGRE, Cyprus</i>																
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09:45 Hybrid renewable energy systems for the supply of services in rural settlements of Mediterranean countries (Paper No. 173) <i>G. Papadakis, Agricultural University of Athens, Greece</i>	The participation in ancillary services by high capacity wind power plants: Reserve power (Paper No. 142) <i>K. De Vos, University of K. U. Leuven, Belgium</i>																
10:00 The introduction of hydrogen economy in Cyprus (Paper No. 178) <i>S. Kalogirou, Cyprus University of Technology, Cyprus</i>	Contribution of wind turbines on grid stability and technical challenges (Paper No. 126) <i>S. Pastromas, Vestas Hellas, Greece</i>																
10:15 The effect of biofuel on exhaust gas emissions under non-laboratory conditions (Paper No. 111) <i>A. Charalambides, Cyprus University of Technology, Cyprus</i>	Benefits of using RES and energy saving techniques in the small community of Polystypos - Cyprus (Paper No. 107) <i>A. Charalambous, Cyprus Energy Agency, Cyprus</i>																
10:30 Short term load prediction using functional time series methods (Paper No. 149) <i>E. Paparoditis, University of Cyprus, Cyprus</i>	Why go offshore? (Paper No. 154) <i>A. Andreou, University of Cyprus, Cyprus</i>																
10:45 Tertiary reserve in Greece’s electricity market: The need for “peakers” (Paper No. 134) <i>P. Andrianesis, University of Thessaly, Greece</i>	Control design for maximum efficiency of a variable wind energy conversion system (Paper No. 152) <i>C. Mademlis, Aristotle University of Thessaloniki, Greece</i>																

Preliminary program (continued)

Day 2 – 12 December 2009			
11:00	Coffee		
11:30	<p>Keynote lecture <i>Chairperson: Prof. Manfred Lange</i></p> <p style="text-align: center;">International Scientific Cooperation in FP7</p> <p><i>Mr. Michele Genovese, European Commission</i></p>		
12:00 Technical sessions			
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Preliminary program (continued)

Day 2 – 12 December 2009															
13:15	Lunch														
15:00	<p>Keynote lecture <i>Chairperson: Prof. Alexandros Mitsos</i></p> <p style="text-align: center;">Future sustainable energy systems</p> <p><i>Dr. Andreas Poullikkas, Electricity Authority of Cyprus, Cyprus</i></p>														
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16:45	End of Conference														

14. DISTRES consortium

Contact

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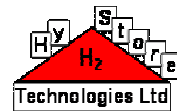


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CENTRE DE DEVELOPPEMENT
DES ENERGIES RENOUVELABLES



ΚΑΠΕ
CRES



DISTRES
consortium

DISTRES project addresses the objectives of European Commission International Cooperation on *Renewable Energies for Mediterranean specific needs*. DISTRES focuses wholly under the key area *Renewable energy electricity produced from solar energy (photovoltaic and/or solar thermal concentrating system)* and is financially supported by the European Commission through the 6th Framework Programme for Research and Development.

DISTRES has been running since January 1st 2007 and is expected to end on the 31st December 2009.



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