

in collaboration with



**Advanced training course:
"Integration of Renewables in the Mediterranean
electricity markets"**

17/11/2014 - 28/11/2014

Mon 17 Nov Politecnico di Milano - Campus Bovisa - Building 25 - conference room

Morning

International energy market insight

09:30 - 10:15	Welcome and course presentation Ing.Vigotti - RES4MED Ing.Testi- RES4MED Ing.Germini - Enel Foundation Prof.Macchi- PoliMI
10:15	<i>Welcome coffee break - opening ceremony</i>
10:45 - 11:45	General trends in the world energy field and the role of renewables Ing.Vigotti – IEA – Renewable Energy Industry Advisory Board
11:45 - 12:15	Drivers and barriers for sustainable development in the Mediterranean Region Prof.ssa Colombo - PoliMI
12:15 - 13:00	<i>Participants presentation</i>
13:00- 14:30	<i>Lunch</i>

Afternoon

PV

14:30 - 16:00	PV basic principles, state of the art and future developments Prof.Bottani - PoliMI
16:00 - 16:30	<i>Break</i>

16:30 - 17:15	PV presentation of a leading Italian Inverter Manufacturer Ing. Bernardi - Carraro
17:15 - 18:00	PV presentation of a leading Italian Module Manufacturer Ing. Irace - 3SUN (EGP)

Q&A

Tue 18 Nov *Politecnico di Milano - Campus Bovisa - Building 25 - conference room*

Morning

CSP

09:15 - 11:00	CSP basics, state of the art and future development Prof. Silva - PoliMI
11:00 - 11:30	<i>Break</i>
11:30 - 13:00	CSP Morocco case: Ait Baha Plant Ing. Donati - Italgen

Q&A

13:00- 14:30 *Lunch*

Afternoon

14:30 - 16:30	Visit to Solar tech Lab - Politecnico di Milano Prof.ssa Leva - PoliMI
16:30 - 17:00	<i>Break</i>
17:00 - 18:00	Presentation of a leading Italian CSP Manufacturer Ing. Martini - Archimede Solar Energy

Q&A

Wed 19 Nov *Politecnico di Milano - Campus Bovisa - Building 25 - conference room*

Morning

Wind

09:15 - 11:00	Wind Energy basic principles, state of the art and future development Prof. Zasso - PoliMI
11:00 - 11:30	<i>Break</i>
11:30 - 13:00	Renewables: Incentive mechanisms and cost issues Ing. Arienti - Edison

Development Process of a Wind Projects

Ing.Bacco – Edison

The Eureka Project: how to attract new investors and become the Italian third wind operator

Ing.Peruzzi – Edison

Q&A

13:00 - 14:30 | *Lunch*

Afternoon

Wind Lab and Biomass

14:30 - 15:30 | **Biomass energy basic principles and state of the art**

Prof. Consonni - PoliMI

15:30 - 16:00 | **Large biomass programs: the supply chain and the chicken and egg problem**

Ing.Andreoni - Poyry

16:00 - 16:15 | *Transfer to Wind Tunnel*

16:15 - 17:30 | **Visit to Polimi Wind tunnel**

Prof.Zasso - PoliMI

Q&A

Thu 20 Nov *Politecnico di Milano - Campus Bovisa - Building 25 - conference room*

Morning

Grid operation

09:15 - 10:00 | **Electrical grid: basic principles**

Prof.Berizzi - PoliMI

10:00 - 11:00 | **The challenges of TSO to manage the Renewable variability generation**

Ing.Carlini - TERNA

11:00 - 11:30 | *Break*

11:30 - 13:00 | **Med infrastructure: how to meet the energy potential?**

Ing. Provenzano - CESI

Q&A

13:00- 14:30 | *Lunch*

Afternoon

Distributed generation and regulation

14:30 - 15:30 | **Distributed generation: a solution to look forward the integration of RES into electricity market**

Ing. de Nigris - RSE

	Regulatory framework
15:30 - 16:30	Basic Principles of market opening Dott.Lanza - MEDREG
16:30 - 17:00	<i>Break</i>
17:00 - 18:00	Market rules and renewable sources: an open challenge Dott.Marino - Poyry

Q&A

Politecnico di Milano - Campus Bovisa - Building 25 - conference room

Fri 21 Nov

Morning

Storage solution

09:15 - 10:00	Energy storage basic principles Prof.Delfanti - PoliMI
10:00 - 11:00	Storage state of the art and future development Ing.Micolano - RSE
11:00 - 11:30	<i>Break</i>
11:30 - 12:15	Presentation of leading storage manufacturer: market view and expected trends Ing.Lamperti - NEC
12:15 - 13:00	Storage - Italian Pilot project - TSO view Ing.Apicella - TERNA

Q&A

13:00- 14:30 *Lunch*

Afternoon

Waste to energy

14:30 - 16:00	Electricity from non-conventional sources - thermal waste recovery plant Ing.Maffeo - gruppo IREN
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Q&A

Mon 24 Nov *Turin, ASJA headquarter - Rivoli (TO)*

Morning

Biogas

07:30 - 10:00 *Transfer to ASJA headquarter - Rivoli (TO)*

10:00 - 10:45 **Welcome coffee and Company Presentation**

President dott. Re Rebaudengo - Asja

CEO dott.Casale - Asja

10:45 - 12:15 **Biogas basic principles and state of the art**

Prof.Genon - **PoliTO**

12:15 - 13:00 **Biogas from agricultural wastes**

Dott.ssa Erriquens - **ASJA**

13:00 - 14:00 Light Lunch

Afternoon

14:00 - 14:30 **Landfill biogas - introduction to the site visit**

Ing. Borello - **ASJA**

14:30 - 15:00 *Transfer to Pianezza landfill biogas plant*

15:00 - 16:30 **Guided tour of the Pianezza biogas plant including technical explanations**

Ing. Borello/Ing.Pace - **ASJA**

Q&A

Tue 25 Nov *PwC Headquarter - Milan*

Morning

Renewable energy investments and financing

08:30 - 09:30 Participant registration and welcome coffee

09:30 - 09:40 **Welcome key note**

Dott.Giovanni Poggio - **PwC**

09:40 - 11:00 **Project financing of renewable energy plants and infrastructures**

Dott.ssa Belisario - **PwC**

11:00 - 11:20 *Break*

11:20 - 12:10 **Competitive deployment of PV-CSP-Wind: the importance of multi-year pluritechnological plans**

Ing.Sciancalepore - **EGP**

12:10 - 13:00 **Strategic trends in the global renewable energy industry**

Prof.Marangoni - **Althesys**

Q&A

13:00 - 14:30 *Lunch*

Afternoon**Renewable energy investments and financing**

14:30 - 15:00	Innovative hybrid CSP-biomass plant Ing. Pilenga Falck Renewables Ing. Di Persico Falck Renewables Ing. Scapolo Falck Renewables
15:00 - 15:30	International investment case: Jordan Dott. Appendino - Solar Ventures
15:30 - 16:00	<i>Coffee Break</i>
16:00 - 16:30	The industrial approach in the management of PV plants Dott. Aulisa - Hfv
16:30 - 17:00	Renewable energy assets: Bank's view Ing. Martorana - UniCredit Leasing
17:00 - 17:30	Crowdfunding: an innovative tool to finance local RES projects Dott.ssa Candelise - Bocconi

Q&A**Wed 26 Nov**Transfer by Bus *Milan - RSE headquarter***Morning****RSE headquarter Milan**

08:30 - 09:30	<i>Transfer to RSE laboratories in Milan and registration</i>
09:30 - 09:45	Welcome key note Ing. Cherbaucich – RSE
09:45 - 10:45	A Snapshot of Smart Grids Achievements in Italy Ing. de Nigris - RSE

Q&A

10:45 - 11:15	<i>Break</i>
11:15 - 11:40	GSE: a public tool for boosting sustainable energy development Dott.ssa Pancaldi - GSE
11:40 - 12:25	Italian experience in deploying Renewable Energy Ing.Miraglia - GSE
12:25 - 13:00	Other tools for RE from EU Climate Policy: EU Emission Trading Scheme

Dott.ssa Pancaldi - **GSE**

Q&A

13:00 - 14:30 *Lunch*

Afternoon

Milan - RSE headquarter

14:30 - 17:00 **Visit to RSE laboratories**
Test Facility (Ing. Verga)
Photovoltaic field (Ing. Guastella)
Meteorological Forecast Lab (Dr. Ronzio).

Q&A

Milan - CESI headquarter

Thu 27 Nov

Morning

9:15 - 10:00 *Transfer to CESI headquarter - Milan*

10:00 – 10:30 **Welcome coffee and Company presentation**

10:30 – 11:30 **Visit to CESI Laboratories**

11:30 – 12:30 **Multi-junction solar cell technology and its space and terrestrial applications**

12:30 - 13:30 *Lunch*

Afternoon

Solutions to meet local needs

13:30 – 14:30 *Transfer to Politecnico di Milano - Campus Bovisa - Building 25 - conference room*

15:00 – 16:00 **RES development for local communities: challenges and opportunities**

dott.ssa Mele - **Enel Foundation**

16:00 – 16:15 *Break*

16:15 – 17:00 **A Mediterranean electricity cooperation strategy: Vision and Rationale**

prof.Rubino - **RES4MED**

Q&A

Social Dinner at Edison Headquarter Foro Buonaparte

Morning

International High Level Round Table

09:30 – 12:00 **"Rethinking the partnership between the two shores of the Mediterranean"**

"Rethinking the partnership between the two shores of the Mediterranean"

Final Round Table

Advanced Training Course

"Integration of renewable energy solutions in the Mediterranean electricity market"

Closing ceremony

November 28th 2014

Building 25, Conference Room, Bovisa Campus
Politecnico di Milano

09:30 Registration and welcome coffee

10:00 **Opening session and welcome statements**

Chairman: **Roberto Vigotti**

Giovanni Azzone (Rector, Politecnico di Milano)

Sudqi Omoush (Energy Expert and Policy Advisor at Secretariat, Union for the Mediterranean)

10:40 **RES development as game changer in the energy scenario**

Chairman: **Alessandro Rubino**

Alicia Mignone (Chair of the Committee on Energy Research and Technology, IEA)

Marco Berti Palazzi (International Relations Officer South Mediterranean and Maghreb countries, EU Commission)

Felice Egidi (Head of Regulatory Affairs, Enel Green Power)

11:40 **Closing remarks and conclusion**

Roberto Vigotti (Secretary General, RES4MED)

Ennio Macchi (Professor, Politecnico di Milano)