ABSTRACT

In Italy the PV business has reached an annual amount of 220 MC. In this context it is interesting to evaluate the qualification and skills of designers and installers, and whether they are a match for the quality standards in the present Italian market. The Directive 2009/28/EC of the 23rd April 2009 introduces a novelty for installers of PV plants. Before December 31st 2012, the Member states have to provide the installers a certification or a qualification system, based on a mutual recognition. ENEA and Mesos have performed interviews with the installers and installing companies to find out whether they are in favour of a certification and to what extend the education influenced their work.

Training in PV sector

There is no official certification and accreditation scheme for PV installers in Italy. Training in the field of PV systems is organized by different actors. Public or private institutions operating in the sector also offer courses for aspiring designers or installers.

Training structures and courses

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>TRAINING STRUCTURES</th>
<th>UNIVERISTIES</th>
<th>RESEARCH PUBLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANIES or INSTITUTIONS</td>
<td>TECHNICAL SERVICES</td>
<td>TECHNICAL UNIVERSITY</td>
<td>RESEARCH CENTER</td>
</tr>
<tr>
<td>TEACHERS</td>
<td>TECHNICAL EXPERTS</td>
<td>TECHNICAL UNIVERSITY</td>
<td>RESEARCH CENTER</td>
</tr>
</tbody>
</table>

PV courses qualified by a third party :

- The course organized by ENEA – Messa, Qualified by CEPAS under the ISO/IEC 17024 standard (ex- EN 45013).
- The course organized by C.R.E.A., qualified by ESACert based on CEN standards UNI EN 45011.

Training and certification: results of an inquiry

- For the definition of the certification path of the operators involved in the design, installation and inspection of PV plants, ENEA has identified CEPAS - Italian Certification Body for Personnel and Training Courses,
- CEPAS follows the ISO/IEC 17024 standard (ex- EN 45013) “General requirements for bodies operating certification of persons”
- Up to now Messa and ENEA have organized 8 editions of the designers course and 3 for installers of PV plants. They have trained 207 people, of which 152 designers and 55 installers.

The Italian certification and qualification scheme

Directive 2009/28/EC

The Directive on the promotion of the use of energy from renewable sources entered into force in June 2009

National Renewable Energy Action Plan (NREAP)

Submitted by the Ministry of the Economic Development to the Commission on 29th July 2010. According to Article 14 – information and training of the RES Directive in the NREAP Italy has reported all policies and measures ensuring that information on support measures is made available to all relevant actors by the supplier of the equipment or system or by the national competent authorities. Information campaigns are not mandatory but planned to begin in 2010 and last 2020.

The project QUALICERT - “Common quality certification and accreditation for installers of small-scale renewable energy systems”

- Involves 15 European partners, including EPIA, the European Photovoltaic Industry Association.
- The aim is to define the competences that the installers should have.
- In brief the EQF will be used to fulfil the requirements of art.14 of the Directive 2009/28/EC for the promotion of RES.

Results of representative sample of 31 ex trainees who have responded to our questionnaire

- Changed PV Job Situation due to the course
- Job Situation, before and after the course
- Reasons for not being qualified yet

CONCLUSIONS

- Considering ENEA’s long experience in R&D on PV, Article 4 of the Decree Law 115/2008 has assigned to ENEA the task of the National Energy Efficiency Agency.
- Being well experienced in training, therefore ENEA is the most appropriate agency to develop different instruments, this in cooperation with regions and regional training agencies.
- There are already available e-learning courses and face to face course aimed to installers, designers, end-users, according to European standards ISO and certified by CEPAS.
- The above mentioned experience is used in the European funded Project "QualiCert” which represents a “key project” to the European harmonisation and mutual recognition of the existing certification and qualification schemes.