

SolarTec

Background Information to Draft Competence Profiles - Installation/ Maintenance -

1. Meaning of the term “Qualification”

The term *Qualification* can lead to mistakes and misunderstandings when considering EQF and the question of the corresponding qualifications among European countries. CEDEFOP produced a glossary of the 100 most common terms used in education. In the publication the word *Qualification* has been translated into six language (En, Es, De, Fr, It, Pt):

“The term qualification covers different aspects:

(a) formal qualification: the formal outcome (certificate, diploma or title) of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards and/or possesses the necessary competence to do a job in a specific area of work. A qualification confers official recognition of the value of learning outcomes in the labour market and in education and training. A qualification can be a legal entitlement to practice a trade (OECD);

(b) job requirements: the knowledge, aptitudes and skills required to perform the specific tasks attached to a particular work position (ILO).”

Source: based on Eurydice, 2006; European Training Foundation, 1997; OECD, 2007; ILO, 1998.

Some education systems in Europe (es: Italy, France) refer to the definition in point (a) while other systems work according the definition in point (b) (es: UK). The consequence for the vocational system is that in some cases the certificates are more related to the theory and a wide spread of possible work positions are open to the students after the achievement of a qualification, that is also a legal entitlement (a); in other systems there is more strict correspondance among work position, qualifications and curricula (b). Italy is more close to (a).

2. The offer of training courses in PV sector

The offer of training for PV installation and maintenance in Italy must be considered in the context of the Italian vocational qualification system.

The offer of training for the PV installer/PV maintenance job profiles is delivered by:

- The regional system of vocational training. There are courses for different targets delivered by private or public schools with qualification certificate or certificate of attendance:
 - o courses for youngs after pre secondary school (14-16 y.o.), duration 3 years, with a qualification at the end of the course: these courses insist on energy and environment and PV plants is considered as part of the curriculum; Sometimes courses are not strictly connected to PV plants and they concern electric skills with just some elements of installation and maintenance of PV
 - o courses for people who have already a job qualification , with a duration from 300 to 600 hours

- courses for workers who need a new qualification, different duration from 40 to 150 hours
- In most of cases these courses are free of charges. In other cases the costs of attendance are usually covered by the students with a large range of prices
- University courses. Courses with certificate of attendance are delivered with variable durations:
 - Master courses for graduates and post graduates: They are equivalent to University Masters: the students at the end are entitled with a 2° level degree as “PV Engineer””
 - Private companies. Courses have different durations (max 150 hours) and certificate of attendance. The costs of attendance are usually covered by the students with a large range of prices
 - Courses on demand for workers

Few private courses are qualified on the basis of ISO/IEC 17024:2003 “Conformity assessment - General requirements for bodies operating certification of persons”. These courses require prerequisite, entrance test and when candidate gets through the final exam, he gets a certification of competences in the field.

Because of the variety of the training offer many PV companies and individuals are uncertain about the effectiveness of a single training course. The profile of a good PV installer/maintenance is someone who has already a technical qualification or a diploma and has attended a specific course on PV techniques, or had been working at a PV company as practical co-worker for at least 3-4 years.

For installation of PV plants up to 20 kW in the service of buildings the Italian law (Ministerial Decree. 37/2008) prescribe requirement for the installer or technical responsible or legal representative of the enterprise: technical degree, secondary school technical diploma plus one year of experience at the service of an enterprise of the sector, vocational training plus two years of experience, or three years of experience.

3. Italy NQF is still to be implemented

It must be noted that at the moment a NQF related to the EQF is not ready in Italy. Some correspondence to the EQF is a result of interviews and opinions collected with experts and must not be considered as complete.

Italy qualification levels corresponding to EQF

<i>Italy</i>	<i>EQF</i>
Compulsory education certificate	1
1 st qualification certificate (17 y.o)	2
2 nd qualification certificate (18 y.o.)	3
Diploma or equivalent qualification (19 y.o.)	4
Title of High Technical Education	5
University degrees	6, 7, 8

1. Italy Draft competence profile

The repertory of deliveries of main courses on PV plants in Italy that we have examined - as a preliminary work for the draft competence - has shown the strict correspondence between the profiles of Installation and Maintenance.

For this reason we included in the Installation profile also Monitoring and Repairing, while Health and Safety has been considered important in the two specialisations.