



Regulation of professions in the domain of

Electricity

(Electrical installation, electrical inspection, electrical work)

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Introduction

Under the Agreement on the Free Movement of Persons (AFMP¹), professionals from the EU can have their qualifications recognised if the profession for which they are qualified in their country of origin is regulated in Switzerland.

This document aims to describe the Swiss regulations in the sector concerned. Regulated professions are those that are subject to specific training requirements and where access to the profession in question is only possible for professionals holding a specific qualification that is defined in relation to the Swiss education system. Foreign professionals can only access a regulated profession or occupation once their qualifications have been recognised.

If holders of foreign professional qualifications wish to pursue a profession or occupation other than those described in this document, they are free to do so without obtaining recognition of their qualifications (non-regulated profession). In this case, it is the job market which will dictate their chances of finding employment or being awarded jobs in the case of self-employed persons.

The specific aspects of the procedure relating to service providers (as opposed to cases of permanent establishment in Switzerland) are described at the end of this document.

I. Legal bases applying to electricity

What professional activities require verification of qualifications?

Most professional activities relating to electricity are regulated in Switzerland. Therefore, holders of foreign professional qualifications must have these qualifications recognised or verified before beginning to provide services.

Service providers wishing to take advantage of the fast-track procedure for the verification of their professional qualifications must first notify SERI of their intention to provide any of the following services:

¹ Bilateral agreement of 21 June 1999 between the Swiss Confederation and the European Community and its Member States on the free movement of persons, SR 0.142.112.681.

- Installation work: establishing, modifying or servicing electrical installations under Art. 2 para. 1 LVIO²; connecting, disconnecting, modifying or servicing fixed electrical equipment. The following are considered electrical installations:
 - a. indoor installations under Art. 14 of the Federal Act of 24 June 1902 on Weak and Heavy Current Electrical Installations (ElecA, SR 734.0);
 - b. installations powered by and closely connected to an indoor installation, and which are situated on land that may be used by the operator of the source installation, as well as the connecting cables between indoor installations that run across public or private land;
 - c. self-replicating installations, regardless of whether they are connected to a low-voltage distribution system;
 - d. electrical installations that distribute or consume electricity, which are powered directly by a low-voltage distribution system, particularly those that:
 - i. equip tunnels or other underground constructions,
 - ii. equip transport installations through conduits or fuel depots,
 - iii. serve camp sites, marinas, etc.,
 - iv. feed construction sites, markets, circuses, fairgrounds, ATMs, luminous advertising billboards placed at public transport stops, lighting in and around buildings and public facilities;
 - v. provide power to water-supply and wastewater treatment equipment;
 - e. electrical installations at classified military sites and buildings;
 - f. electrical installations situated in civil protection sites;
 - g. fixed equipment or provisional electrical installations connected to installations defined in let. a to f;
 - h. electrical installations on boats.

- Inspection work: inspection of electrical installations mentioned above;

- Other work performed by electrical workers : this includes electrical installation work under Art. 2 para. 1 LVIO, installation work performed within the company, work performed in heavy current installations under Art. 3 ch. 12 HCIO³, etc. The precise list of all of these activities can be found in the table shown in the Annex.

However, services rendered in the following fields are not regulated and therefore not subject to the notification requirement:

- Drafting plans of electrical installations (electrical design);
- All activities relating to telematics;
- All commercial and administrative aspects relating to the electricity field.

For these activities, there are no restrictions on exercise of the profession. The service provider is free to render services without the need for prior verification of his/her professional qualifications.

In all cases, persons intending to provide services **must also register with the State Secretariat for Migration** (www.sem.admin.ch > Entry & Residence > Notification procedure for short-term work in Switzerland). This obligation also applies to non-regulated professions.

² Ordinance of 7 November 2001 on Electrical Low-Voltage Installations (LVIO, SR 734.27).

³ Ordinance of 30 March 1994 on Heavy Current Installations (HCIO; SR 734.2).

II. Specific details for EU/EFTA citizens who wish to provide services in Switzerland

Basic principle

In accordance with the Agreement on the Free Movement of Persons (AFMP), professionals who are legally established in the EU/EFTA may provide services in Switzerland without permanently establishing themselves in the country. In such cases, the duration of service provision is limited to 90 days per calendar year.

If the profession they wish to pursue is regulated, they can take advantage of a fast-track verification procedure for their professional qualifications, as set out in EU Directive 2005/36/EC⁴ and the DRPA⁵. The service provision **must be declared in advance to SERI**⁶

Other obligations

In all cases, persons intending to provide services **must also register with the State Secretariat for Migration** (www.sem.admin.ch > Entry & Residence > Notification procedure for short-term work in Switzerland). This obligation also applies to non-regulated professions.

Who is a service provider?

Service provision is an economic activity that is practised on a self-employed basis or without conclusion of an employment contract with a Swiss employer. It is remunerated work of a temporary or occasional nature (limited to 90 working days per calendar year) carried out in Switzerland by an individual who is established in a member state of the EU or EFTA. If you require further information, SERI provides a more detailed note on the service provider concept on its website.

Persons who are not service providers within the meaning of the AFMP will not be able to take advantage of the fast-track procedure for the verification of qualifications. They should instead contact the competent authority to seek recognition of their qualifications under Title III of Directive 2005/36/EC.

⁴ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications, OJ L 255 of 30.9.2005, p. 22, in the current version in accordance with the agreement on the free movement of persons and the revised EFTA Convention.

⁵ Federal Act of 14 December 2012 on the Declaration Requirement and the Verification of Service Provider Qualifications in Regulated Professions, SR 935.01.

⁶ www.sbf.admin.ch/edeclaration

Activities in the electricity field

Comments:

This table contains a list of professional activities that require specific qualifications in order to be carried out in Switzerland. The Federal Inspectorate for Heavy Current Installations (ESTI) issues authorisations for installation and inspection work (www.esti.admin.ch). If an employer wishes to know the equivalence of the qualifications held by its current or prospective employees, it may have the person concerned contact the State Secretariat for Education, Research and Innovation (SERI) to obtain recognition of his/her qualification (www.sbf.admin.ch/diploma).

- SERI and the ESTI have prepared this document for information purposes. The accuracy of the data given here is not guaranteed. **Only current legislation in effect should be deemed authoritative.**
- Activities falling under the scope of the HCIO no. 5-7 and work performed in installations under tension (no. 8) are not regulated activities in the sense that legislation does not require a specific Swiss qualification. The only requirement is that the person has undergone basic electrotechnical training.

	Regulated activity	Name of the occupation/activity	Legal basis	Swiss qualification required	Product	Comments
1.	Establishing, modifying or servicing electrical installations under Art. 2 para. 1 LVIO; connecting, disconnecting, modifying or servicing fixed electrical equipment	Electrical installation specialist (qualified professional according to art. 8 LVIO)	Art. 6 LVIO	Advanced Federal PET Diploma in Electrical Installation, or passing score on practical examination given by ECAS Examination Board	ESTI authorisation for installation work	-

2.	Inspection of electrical installations under Art. 2 para. 1 LVIO	Electrical inspector, or qualified professional under Art. 8 LVIO	Art. 27 LVIO	Federal PET Diploma in Electrical Safety, or Advanced Federal PET Diploma in Electrical Installation, or passing score on practical examination given by ECAS Examination Board.	ESTI authorisation for inspection work	-
3.	Work performed on electrical installations under Art. 2 para. 1 LVIO	Employee working for an installation company	Art. 10 LVIO	Federal VET Diploma in Electrical Assembly (three years of training) or in Electrical Installation (four years of training) or equivalent training.	ESTI recognition	-
4a.	Installation work performed within the company	Industrial electrician / work performed within the employer's company	Art. 13 LVIO	<p>Federal VET Diploma in Electrical Assembly and three years spent working in the electrical installation field, under the supervision of a qualified professional;</p> <p>or</p> <p>Federal VET Diploma in a field relating to Electrical Assembly or Electrical Design or equivalent qualification and at least five years spent working in the electrical installation field, under the supervision of a qualified professional;</p> <p>or</p> <p>Examination for industrial electricians.</p>	ESTI authorisation for installation work performed within the company	Installation authorisation limited to the work described
4b.	Work on special installations	Industrial electrician / work performed in the employer's company	Art. 14 LVIO	Meet the same conditions as those applicable to industrial electricians (see below, ch. 4 a) and three years spent working on such installations, under the supervision of a qualified	ESTI authorisation for special installation work	Installation work requiring special knowledge only; installation

				<p>professional or a person who has obtained a passing score on the corresponding ESTI examination;</p> <p>or</p> <p>Three years spent working on such installations, under the supervision of a qualified professional or a person who has obtained a passing score on the corresponding ESTI examination, and the examination to test one's competence in special installation assembly.</p>		authorisation limited to work described
4c.	Connection of electrical equipment	Industrial electrician/work performed in the employer's company	Art. 15 LVIO	<p>Meet the same conditions as those applicable to industrial electricians (see below, ch. 4 a)</p> <p>or</p> <p>Examination to test ability to connect electrical equipment.</p>	ESTI authorisation for connection work	Connection and replacement of electrical equipment connected to a fixed installation; installation authorisation limited to work described
5.	Work performed in heavy-current installations under Art. 3 ch. 12 HCIO (production, transport and distribution installations within the network)	<p>Competent person (art. 3 ch. 19 HCIO)</p> <p>Definition: "person who has undergone initial training in electrical engineering (apprenticeship, equivalent training in a company, or studies in electrical engineering) and who has</p>	Art. 11 para. 1 et 67 HCIO	<p>Example of Swiss training that meets legal conditions:</p> <p><u>Upper-secondary level training in electrical engineering</u> Federal VET Diploma in an electrical engineering field (e.g. Federal VET Diploma in Electrical Systems, in Electrical Installation, in Electrical Panel Assembly, etc.) with practical experience</p>	None; employer's responsibility	<p>Depending on the case, the instructed person may perform certain tasks (see Art. 11 para. 2 HCIO)</p> <p>See clarifications given in ESTI directive</p>

		experience handling electrical engineering equipment.”		<p>or</p> <p><u>Tertiary-level studies in electrical engineering:</u> Studies in electrical engineering at an FIT, UAS (or technical college) or PET college, with practical experience</p> <p><u>Experience:</u> Practical experience of a suitable duration in the area of specific technical installations, experience that must be confirmed by the operator of the installation</p> <p>or</p> <p><u>Equivalent work-based training in a company:</u> Experience is based on a training programme in an electrical engineering field and lasts – under the supervision of a competent person – at least five years for the work-based portion of training. The specialised classroom instruction portion must be integrated in work-based activities.</p>		407.0909 f concerning activities carried out on electrical installations as well as the information shown in the table in the annex
6.	Work performed in heavy-current installations under Art. 3 ch. 12 HCIO (production, transport and distribution installations within the network)	<p>Instructed person (art. 3 ch. 20 HCIO)</p> <p>Definition : “person who has not undergone initial training in electrical engineering but who is able to carry out limited and well-defined activities in heavy-</p>	Art. 11 para. 2 et 67 HCIO	-	None; employer’s responsibility	Activity limited to routine tasks for instructed persons

		current installations and who is familiar with the local situation and protective measures.”				
7.	Work performed in heavy-current installations under voltage (production, transport and distribution installations within the network)	Qualified and specially trained person	Art. 76 HCIO	<p>Example of Swiss training that meets legal conditions:</p> <p>According to ch. 6.3.1.4 of European Standard EN 50110-1:2004, electrical installation company, depending on the type of work, competent person or instructed person. For examples of work under voltage, see ch. 3.3 of ESTI directive Nr. 407.0909 f concerning activities on electrical installations (simple routine work: instructed person with instructions; work requiring workers to have specific training and organisational skills: competent person with specific training).</p>	None; employer's responsibility	The basic requirements for specific training are described in ch. 6.3.2 of European Standard EN 50110-1:2004.
8.	Work performed in low-voltage installations under voltage	Qualified and specially trained person	Art. 22 para. 2 et 3 LVIO	<p>Example of Swiss training that meets legal conditions:</p> <p>Federal VET Diploma in Electrical Installation or equivalent training.</p>	None; responsibility of holder of installation authorisation	Two people must always be hired. The second person may be an instructed person, but he/she must have completed a first-aid course

Abbreviations :

ECAS	Electrical Contractors Association of Switzerland
FIT	Federal Institute of Technology (ISCED 5A)
UAS	University of applied sciences (ISCED 5A)
PET	Professional education and training (ISCED 5B)