

CESI Type 5 TERNA Grid Code SCHEME

CERTIFICATION OF TYPE CONFORMITY OF ELECTRIC GRID FREQUENCY AND VOLTAGE REGULATION SYSTEMS REGULATIONS

Document under surveillance by CESI Committee for Safeguarding Impartiality (CSI).
It replaces Regulations C3003551

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1 GENERAL

These Regulations relates to the activities of certification of type conformity of electric grid frequency and voltage regulation systems with the requirements of ARERA Resolution No. 40/2021/R/EEL and Annex A.18 of TERNA Transmission, Dispatching, Development and Grid Security Code¹ ex clause 1, paragraph 4, of Italian Prime Ministerial Decree dated 11 May 2004, carried out by CESI as Product Certification Body, in the field of Accredia accreditation No. 00026 *Products/Services/Processes* of conformity with the standard ISO/IEC 17065.²

With reference to the standard ISO/IEC 17067³, the Certification Scheme in subject is classified as type "5".

The Certificate of type conformity granted by CESI attests that the products identified in it and physically available at the time of the certification, were submitted to CESI verification and found in compliance with the reference normative documents.

The responsibility of declaring the conformity of other samples, having the same designation as those verified by CESI, rests with the Applicant.

The execution of the activities is subject to the acceptance by the Applicant of Accredia Regulations RG-01⁴ as applicable, as well as the acknowledgement of the right of Accredia Inspectors to be able to access its premises (together with CESI Inspectors).

CESI guarantees that the personnel involved in the activity are not in conditions of conflict of interest and that they offer the necessary guarantees of confidentiality.

These Regulations and their amendments are verified by CSI with reference to the compliance with the requirements of impartiality, confidentiality and independence.

Pursuant to the standard ISO/IEC 17065, the access to the Scheme is not discriminatory, nor conditioned by the size of the company, nor by membership or not in any association or group, but is open to any Applicant submitting a formal request.

2 DEFINITIONS

- **Certification Scheme**

Certification system regarding products to which the same standards, the same particular rules and the same procedure apply.

- **Preliminary Evaluation Report**

Intermediate document that briefly describes the evaluations of conformity carried out. It may deal with constructive checks, evaluations on possible extensions of the conformity, inspections to tests carried out in external laboratories and witnessed by a CESI Inspector, etc. It contains the references to any document that permits the traceability of the activity carried out (drawings, constructive documents, Certificates of components, Test Reports, Calibration Certificates, laboratory check-lists, non-conformities, etc.).

- **Evaluation Report**

Final document that briefly describes all the reference documents and information necessary to evaluate the results of the tests and checks required by a type conformity certification. The

¹ The intervention of the Body accredited according to ISO/IEC 17065, is foreseen only for checks classified as "Type 4" as described in § 6 of Annex A.18 to Terna Grid Code.

² The activities are carried out within the "KEMA Labs" Business Unit of CESI

³ Or equivalent national version. The same applies to all subsequent citations in the text.

⁴ Accredia Regulations are available on the web site www.accredia.it.

evaluation must bring to the decision on the conformity of the product with the reference normative documents.

- **Certificate of type conformity**

Certificate of conformity that attests that a product is in compliance with a particular standard or other normative document.

- **Committee for Safeguarding Impartiality (CSI)**

Committee established by CESI as Product Certification Body accredited by Accredia according to the standard ISO/IEC 17065 and Inspection Body accredited by Accredia according to standard ISO/IEC 17020, which acts as a Mechanism for safeguarding impartiality and supervises the product certification and inspection activities carried out by CESI, managing and assuring the independence, impartiality and the competence of the Body itself. The Committee is representative of all the main parties interested in the certification and inspection activities.

3 FIELD OF APPLICATION

3.1 Products

Electric grid frequency and voltage regulation systems are included in this Certification Scheme.

The certification may be requested for:

- an individual product (prototype, individual sample);
- a homogeneous series of products having the same basic design but differing for a limited set of characteristics (size, rating, variants, etc.).

3.2 Requirements

The Scheme deals with the certification of type conformity of products with the requirements of applicable reference normative documents. The certification may be granted with reference to one or more of the applicable reference normative documents considered by the Scheme.

3.3 Certificates

The certification according to the Scheme generally attests the type conformity of the product with all the requirements of one or more applicable reference normative document; the attestation of conformity with the applicable reference normative document, limited to some significant characteristics is permitted only under the conditions presented in this clause.

The Accredia mark is placed on the Certificate, where applicable.

The Scheme provides the issue of the following Certificates:

- a) **Certificate of type conformity with the applicable reference normative documents**

This Certificate attests the type conformity of the product with all the requirements of the reference normative documents, corresponding to its ratings and conditions for use specified by the Applicant.

- b) **Certificate of type conformity with the applicable reference normative documents, limited to some significant characteristics**

This Certificate attests the type conformity of the product with all the relevant requirements of the reference documents, with respect to only some significant characteristics, corresponding to its ratings and conditions for use specified by the Applicant.

4 APPLICATION FOR CERTIFICATION

The Applicant shall submit to CESI a formal request, duly signed, using the available application form supplied by CESI, for each desired Certificate.

Such application form includes, in particular, the following information:

- type of Certificate requested;
- applicable reference normative documents;
- identification of the Applicant;
- product to be certified;
- description of the product to be certified;
- designation of the product;
- product ratings that must be stated by the Certificate;
- language of the Certificate (English or Italian).

The application shall be accompanied by the following documents:

- the Scheme Regulations, duly signed for acceptance;
- the descriptive technical documentation of the product (catalogues, technical specifications, drawings, diagrams, manufacturing specifications, etc.);
- the General Conditions of Sale of the Product Certification and Type A Inspection Services, when the conditions for the acceptance signature exist.

Reports of tests already performed on the product may be enclosed to the application form and CESI reserves the right to evaluate them for of the certification process.

Upon receipt of the application, CESI performs a preliminary examination of the documents, to verify completeness and conformity with the Scheme.

If the result is positive, CESI informs the Applicant, prepares or updates the relevant offer and, after the receipt of the order conforming to such offer, starts the certification procedure.

CESI undertakes to maintain confidentiality towards third parties about all the information requested when submitting the application (necessary to define the subsequent activities) and gathered during the whole certification process.

The Applicant cannot advertise the ongoing certification applications until he has obtained the relevant Certificate.

5 PROCEDURE FOR CERTIFICATION

5.1 Grant conditions

The examinations of the documents and the type checks on the product subject to certification must demonstrate that there is compliance with all the requirements prescribed by the reference normative documents, as applicable.

When specified by the reference normative documents, also the components of the product object of certification shall conform to the applicable requirements important for certification. The evidence of conformity may be given by appropriate documents (Certificates, Test Reports).

5.1.1 Assessment of the compliance of the product technical documentation with the manufacturing and dimensional specifications

CESI assesses that the technical documentation of the product to be certified supplied by the Manufacturer, such as construction drawings, technical specifications, test reports, production notes,

component lists, software codes and other similar, is in compliance, in type and contents, with the manufacturing and dimensional requirements of the applicable normative documents. These documents form, together with those of sub-clause 5.2.4, the descriptive documentation of the product to be certified.

5.1.2 Assessment of the conformity of the product to be certified

CESI ensures that the verification activities to be carried out are in compliance with what is reported in Annex B of Annex A.18 of TERNA Grid Code and appropriate to the type of Certificate requested.

The Certificate of conformity with the applicable reference normative documents requires the performance of the type tests, inspections and verifications prescribed by the normative documents themselves.

These activities may consist of:

⇒ Performance of tests in the laboratories of CESI Group.

Note. The tests that are not accredited according to standard ISO/IEC 17025 shall be inspected by the CESI Inspector.

⇒ Performance of tests in external laboratories, chosen by the Applicant or by CESI after Applicant's approval, in the presence of CESI Inspectors, provided that they comply with all the conditions of one of the two following criteria:

Criterion a)

- the laboratory is accredited according to the standard ISO/IEC 17025 - for the tests to be certified - by an Accreditation Body member of EA (European co-operation for Accreditation) or ILAC (International Laboratory Accreditation Cooperation);
- the Test Reports are prepared according to the requirements of the standard ISO/IEC 17025 and show the mark and certificate number of the Accreditation Body;
- the dimensional and technical characteristics of the tested objects correspond to those indicated on drawings univocally identified by the laboratory, to allow CESI Inspector a complete and sure check of the correspondence between the samples previously tested and those submitted to the certification process.

Note. The fulfilment of the conditions of the criterion is always assessed by the CESI Inspector on the basis of the documents produced by the laboratory. The presence of the Inspector during the tests, aimed at preventing or solving possible critical elements in real time, is decided case by case by CESI.

Criterion b)

- the laboratory staff is competent in relation to the tests required by the certification process and is therefore able to assess any deviation or discrepancy;
- the laboratory has adequate equipment and means for carrying out the tests required by the certification process;
- the measuring instruments and systems used are managed according to procedures that ensure the control of the calibration status with uninterrupted traceability up to the primary national or international standards;

- the Test Reports comply with the standard ISO/IEC 17025;
- the dimensional and technical characteristics of the tested objects correspond to those indicated on drawings univocally identified by the laboratory, to allow CESI Inspector a complete and sure check of the correspondence between the samples previously tested and those submitted to the certification process.

Note. The fulfilment of the conditions of the criterion is always assessed by the CESI Inspector during the inspection of the tests. For particular tests, such as long duration tests, the CESI Inspector has the faculty to evaluate in which phases its presence may not be indispensable, subject to the adoption of measures to guarantee the regularity of the tests.

On CESI decision, the inspections to tests may also be commissioned, with the Applicant's consent, to professionals outside CESI that, on the basis of the supplied curricula show their knowledge of the activities to be carried out. The responsibility of the Inspector's behaviour always belongs to CESI. The Applicant may refuse the Inspector, giving adequate reason within 5 (five) working days from the receipt of the information.

⇒ Validation of tests carried out before the application for certification.

In order to consider for certification purposes the tests carried out prior to the presentation of the certification application (previous tests), it is necessary that they were carried out in the presence of an Inspector whose qualification is recognized by CESI and that he has ascertained and documented the conditions referred to the previous criterion b) or that the tests were carried out in laboratories complying, on the date of execution of the tests, with the conditions of the following criterion:

Criterion c)

- the laboratory was independent from the Applicant, the Manufacturer of the product or their industrial groups;
- the laboratory was accredited according to the standard ISO/IEC 17025 - for the tests to be certified - by an Accreditation Body member of EA (European co-operation for Accreditation) or ILAC;
- the Test Reports comply with the standard ISO/IEC 17025;
- the dimensional and technical characteristics of the tested objects correspond to those indicated on drawings univocally identified by the laboratory, to allow CESI Inspector a complete and sure check of the correspondence between the samples previously tested and those submitted to the certification process.

Note. CESI, in any case, has the right to request the execution of tests to validate the previous experimental path, to be carried out in the presence of an Inspector as specified for criterion b). The performance of the tests can be required after design changes deemed influential on the result of the previous tests, after modification or update to the reference normative documents, after change of production plant, etc.

5.1.3 Assessment of the compliance of product to be certified with the product descriptive technical documentation (identification of the product)

The product object of certification must be identified by means of a unique code (serial number or waybill code or batch number, etc.). CESI assesses the compliance of the product with the technical identification

documents. These documents form, together with those of sub-clause 5.2.2, the descriptive documentation of the product to be certified. This latter is mentioned in the Evaluation Report, is signed by CESI and is returned to the Applicant who is required to keep it for the period of validity of the Certificate.

The Applicant shall also supply a detailed and complete list (or more than one) of the aforementioned documents.

CESI is not required to file a copy of the descriptive documentation, with the exception of the lists.

5.1.4 Remote inspections

In circumstances of necessity (such as natural disasters, unforeseen unavailability, etc.) CESI may use, with the Client's consent, remote audit techniques to reduce possible problems caused by interruptions in tests or unacceptable delays.

The ways in which remote inspections are carried out are regulated by an internal procedure that CESI will ask to share at the appropriate time.

5.2 Evaluation of the production processes and the plant management system

CESI evaluates the manufacturer's ability to create the product according to the project specifications in order to guarantee the products the same performances evaluated during the type tests of the original prototype.

The assessment is carried out by carrying out a dedicated inspection of the production site during which the following activities are carried out:

- review of the main elements of ISO 9001 implemented by the manufacturer;
- evaluation of the raw materials inspection process;
- evaluation of the production process;
- evaluation of the packaging and storage process;
- evaluation of the transport process;
- evaluation of routine test procedures;
- review of quality control laboratory and routine test results.

The result of the assessment will be included in a dedicated inspection report.

5.3 Evaluation of the results and issue of the Certificate

CESI issues an Evaluation Report with the results, significant for certification, of the analysis of the tests and verifications carried out.

If the results of all the checks show the conformity with the requirements of sub-clause 5.1, CESI grants the Certificate of type conformity, the issue of which is subject to the control of CSI, in accordance with the provisions of their Regulations.

If the results of the checks on the product and on the relevant documents do not conform to the requirements, CESI informs the Applicant, explaining the reasons for non-conformities and fixes a deadline to adopt the necessary corrective actions. If no action is taken within that date, the application for certification is rejected.

If the samples are modified, the checks shall normally be repeated; CESI examines the non-conformities recorded and the changes carried out and reserves the right to repeat the inspections and tests considered significant.

The Evaluation Report can be issued in English or Italian language.

5.4 Surveillance procedure

CESI carries out periodic surveillance (typically annual) on the maintenance of the conditions that allowed the Certificate to be issued to the Applicant.

The Inspectors have the right to carry out all the checks they deem useful to check that the Applicant complies with the commitments undertaken and, in particular, they are authorized to carry out an inspection visit on site every year and to view the results of the tests carried out by the Applicant.

The Applicant undertakes to enable CESI to carry out on site surveillance and verify the previously certified product. The Applicant must also undertake the commitment to make the documentation and anything else necessary required during the certification phase available to CESI.

All expenses for the aforementioned activities (cost of inspections, any tests, etc.) are borne by the Applicant. In particular, CESI services will be preliminarily quoted in an offer.

6 MAINTENANCE, DURATION, UPDATING AND TRANSFER OF THE CERTIFICATE

6.1 Conditions for maintenance

The grant of a Certificate of type conformity allows the Grantee to show it or to make reference to it for all legal, promotional and commercial purposes, provided that it does not induce any misunderstanding concerning its actual meaning.

The Grantee shall ensure that the Certificate is correctly used. In particular, he shall be committed to avoid the occurrence of misunderstandings:

- between the sample referred to in the Certificate and the other products whose conformity is not attested by CESI;
- between the requirements the certified product has been found conforming to and those not subject of CESI certification.

The Grantee shall maintain a system for registering complaints received from customers in relation to the products subject to certification and the corrective actions adopted. These records shall be made available to CESI upon request.

6.2 Certificate duration and renewal upon expiry

In compliance with ACCREDIA Technical Circular DC N° 51/2022 "Provision regarding the accreditation of Terna Grid Code scheme in compliance with ARERA Resolution No. 40/2021/R/EEL and Annex A.18", the Certificate has a limited validity in time which is set by CESI at 3 (three) years starting from the date of issue.

Renewal of the Certificate upon its natural expiry is permitted upon request of the Grantee. In this regard, the performance of the certified product must be evaluated and confirmed through an on site inspection; the Manufacturer will therefore be required to make the documentation relating to the expiring certification available to CESI.

The CESI Inspector carries out the identification of the sample on the basis of the aforementioned documentation. Renewal is granted, which will last three years, if the correspondence between the sample and the documentation presented is found. Any further renewals requested after the first will always have a three-year duration and will follow the same procedure as above.

Renewal is not permitted in the case of replacement of the production plant.

6.3 Certificate updating and transfer

The Grantee may request a new Certificate, based on the contents of a previous CESI Certificate of type conformity, in the following cases:

- updating to attest the conformity with new applicable reference normative documents, or with updated editions, with respect to the ones referred to in the original Certificate;
- updating following changes or new versions of the design of the product;
- transfer following modifications to the name or trademark of the product;
- transfer following modifications to the Grantee Company name;
- transfer following modifications to the Manufacturer's Company name.

The relevant descriptive technical documents shall be submitted to CESI, which performs all the checks required for granting the Certificate; CESI reserves the right, in case of Certificate updating, to repeat inspections and tests, considered significant, on new samples.

If the results of the checks, documented by an Evaluation Report, are positive, CESI issues the new Certificate.

6.4 Checks on Certificate use

CESI controls the use of the Certificate made by the Grantee by:

- gathering publications appearing on press/literature and information arriving from the market;
- analysing actual complaints on misuse of the Certificate.

In the event of an incorrect use being ascertained, CESI warns the Licensee to continue this practice, requesting measures aimed at obtaining adequate corrective actions; in the event of recidivism, it informs the CTC to obtain a revocation measure.

6.5 Use of CESI logo

The Grantee of a Certificate can make full copies of the document, but he is not allowed to extract and use in any other way the CESI logo and the associated Accredia mark.

7 SUSPENSION AND WITHDRAWAL OF THE CERTIFICATE

The Certificate is suspended by CESI in the following cases:

- the Grantee ceases to comply with the commitments undertaken for the granting the Certificate;
- the conditions for granting the Certificate no longer exist.

The suspension of the Certificate produces the following effects:

- the prohibition of using the Certificate in association with the products and in catalogues and commercial documents;
- the notification of the suspension to CTC to allow for an adequate examination.

The Certificate is withdrawn by CESI in the following cases:

- the Grantee ceases its activities;
- the conditions for maintaining the certification no longer exist;
- there is evidence of recidivism in the incorrect use of the Certificate.

The withdrawal of the Certificate produces the following effects:

- the withdrawal of the Certificate itself;
- the prohibition of using the Certificate in association with the products and in catalogues and commercial documents;
- the deletion of the product from the list of the certified products;

- the appropriate publicity by CESI of the notice of withdrawal;
- the notification of the withdrawal to CTC to allow for an adequate examination.

In both cases, the CTC has the right, at the end of its examination, to request CESI to modify its decisions.

8 COMPLAINTS AND APPEALS

The Applicant (or a third party) has the possibility to present complaints about the behaviour of CESI during the certification process or to propose an appeal to obtain that a decision taken by CESI during the certification procedure is modified.

All the complaints and appeals are submitted by CESI to the examination of CSI during the first meeting following their presentation.

CSIC examines the reasons of the disagreement and the decisions eventually already taken by CESI and deliberates on the matter. CSI resolutions are mandatory for CESI.

9 CHANGES TO THE REGULATIONS

In case of changes while the certification activities are in progress, the Applicant is promptly informed by CESI and retains the right to accept or not the new version of the Regulations if the changes are not due to mandatory aspects.

An updated copy of the Regulations can be requested by consulting the website www.cesi.it.

The Applicant

Stamp and signature _____

Date _____

The Applicant declares explicitly of having read carefully and approved, with respect and to the effects of clauses 1341 and 1342 of the Italian Civil Code, all the sections of the present Regulations and in particular the following: 4 (Application for certification), 5 (Procedure for certification), 6 (Maintenance, duration, updating and transfer of the Certificate), 7 (Suspension and withdrawal of the Certificate).

The Applicant

Stamp and signature _____

Date _____