European Network of
Transmission System Operators
for Electricity

entsoe

CGMES Conformity Assessment Framework

Version 2

For conformity assessment of the applications supporting IEC specifications TS 61970-600-1 and 61970-600-2

16 October 2017

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1. Definitions

(a) **Application** means computer software, referring to a particular version in use for commercial activities, may it be an off-the-shelf product or a version customised for the use in a particular business environment. For the purpose of this Framework, the Application refers to an Application for which the Supplier seeks to obtain an Attestation of Conformity.

(b) **Assessment Body** means the central body that is responsible to drive all processes and communications in the frame of the conformity assessment process and whose role and mission are further defined in the section 4.

(c) **Attestation of Conformity** means an attestation that an Application is in line with all the requirements of the IEC specifications TS 61970-600-1 and 61970-600-2which the Supplier listed in its Declaration of Conformity.

(d) **Conformity** means the conformity of the output produced by an Application with a specific version of the IEC specifications TS 61970-600-1 and 61970-600-2, which is assessed and verified by the utilization of the principles and processes defined in this document and recognised by the issuance of an Attestation of Conformity.

(e) **Declaration of Conformity** means the document issued by the Supplier as a result of the first party assessment to support the Conformity of its Application.

(f) **Opinion Body** means a body whose mission is to issue an opinion on the conformity of an Application.

(g) **Review Session** means the session where the Supplier is invited to review the Conformity of its Application with the Review Team.

(h) **Review Team** means a group of at least two Reviewers appointed by the Assessment Body to evaluate the Conformity of an Application.

(i) **Reviewer** means an expert appointed by the Assessment Body to perform a conformity assessment on one or more Applications.

(j) **Scheme** means the complete set of rules, including those embodied in this document, and complete set of templates governing the conformity assessment process used to determine the Conformity of an Application, procedures and management for.

(k) **Second Review Team** means a temporary team whose mission is to issue a second recommendation on the conformity of an Application after a complaint has been successfully filed.

(l) **Supplier** means a person or an organization who seeks an Attestation of Conformity for its Application.

2. Introduction

ENTSO-E, an association of the European electricity transmission system operators, selected the Common Information Model (CIM) standards of the International Electrotechnical Commission (IEC) as a basis for its own CIM standards. These standards aim at ensuring the reliability of grid models and market information exchanges.

In 2013, ENTSO-E adopted a new standard for grid models exchange now called the IEC specifications TS 61970-600-1 and 61970-600-2. The IEC specifications TS 61970-600-1 and 61970-600-2 is a superset of the IEC CIM standards (belonging to IEC CIM16). It was developed to meet necessary requirements

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for the transmission system operators, which exchange data in the areas of system operations, network planning and integrated electricity markets.

To allow an effective and efficient exchange of data using the IEC specifications TS 61970-600-1 and 61970-600-2, the relevant Applications should be in line with the IEC specifications TS 61970-600-1 and 61970-600-2. ENTSO-E consequently decided to setup a conformity assessment process, whose main applicable principles and structure are described in this document (hereafter referred to as the Framework) to ensure that the Applications are in line with the IEC specifications TS 61970-600-1 and 61970-600-2.

3. Principles

The Framework's principles are inspired from the principles developed by the Committee on Conformity Assessment (CASCO) of the International Organisation for Standardisation. In particular the Framework is based on the following four principles to ensure sufficient confidence and trust to all Suppliers that their request for an Attestation of Conformity for their Application will be dealt with in an impartial manner:

(a) Impartiality[1] of the decision bodies;

(b) Confidentiality[2] of information;

(c) Possibility to issue complaints[3]; and

(d) Transparency[4] on the process.

4. Organisational structure

Figure 1 illustrates the organisational structure of the conformity assessment process that shall be organized centrally by ENTSO-E on behalf of its members.

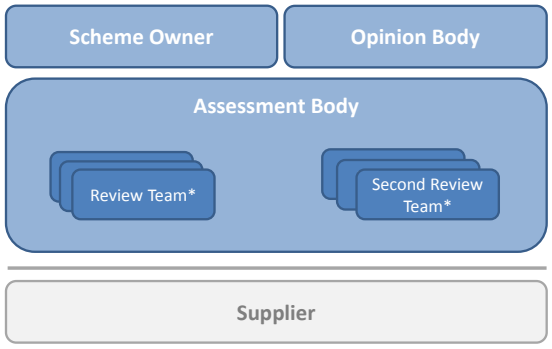

Figure 1: Organisational structure

(a) The Assessment Body is the central body that is responsible to manage all processes and communications in the frame of the conformity assessment process.

(b) The Assessment Body shall appoint and manage the following functions:

[1] For more information, please refer to ISO/PAS 17001:2005
[2] For more information, please refer to ISO/PAS 17002:2005
[3] For more information, please refer to ISO/PAS 17003:2005
[4] For more information, please refer to ISO/PAS 17004:2005

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(i) As the single point of contact the Assessment Body shall be responsible for all communications for both internal and external requests. All Suppliers shall direct their communication and requests only to the Assessment Body;

(ii) Review Teams that have responsibilities in the frame of second party assessment process. Reviewers shall be assigned to one or more Review Team to perform a conformity assessment on one or more Applications; and

(iii) Second Review Teams that shall operate in the frame of the second opinion process (section 5.2).

(c) The Opinion Body is the body, independent from the Assessment Body, which solely holds the power to issue an opinion on the conformity of an Application in accordance with the opinion formation process (section 5.1.2.2).

(d) The Scheme Owner is responsible of the Scheme and of the modification of the Scheme including any of its artefacts through the change process (section 5.3).

5. Processes

The Framework defines the following main processes:

(a) Conformity assessment processes;

(b) Second opinion process; and

(c) Change process.

5.1. Conformity assessment processes

The conformity assessment processes consist of two stages, hereafter referred to as first party assessment and second party assessment. An Application shall successfully go through both parts of the conformity assessment processes to be granted an Attestation of Conformity.

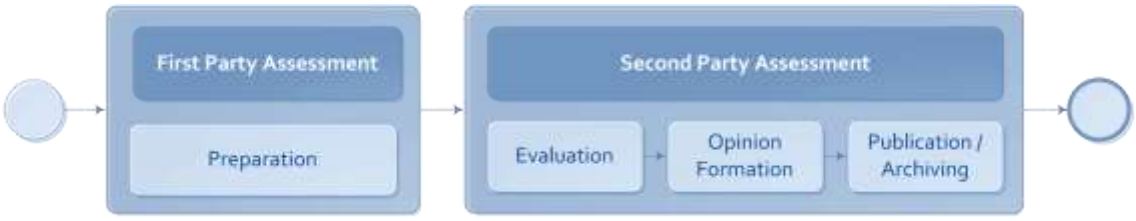

Figure 2: Conformity assessment processes overview

5.1.1. First Party Assessment

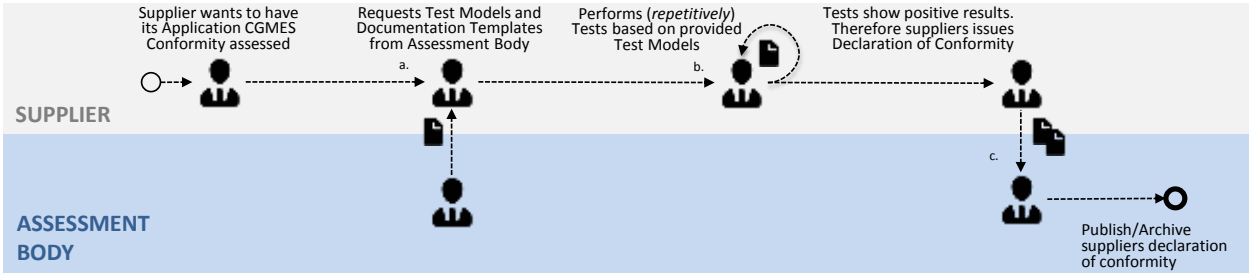

Figure 3: First party assessment

(a) A Supplier that would like to obtain an Attestation of Conformity for its Application triggers the first party assessment process.

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(b) Tests by the Supplier and issuing of the Declaration of Conformity:

(i) The Supplier shall test its Application's conformity with the requirements of the CGMES CAS v2.0 on the basis of the test procedure, test configurations/models and the documentation templates provided by the Assessment Body.

(ii) The Supplier can issue a Declaration of Conformity (the template shall be provided by the Assessment Body) only if the tests performed by the Supplier unambiguously demonstrate that the Application fulfils the criteria defined in the test procedures for a specific use case or for a CGMES CAS v2.0 requirement on which the Supplier would like to claim Conformity.

(c) Upon submission by the Supplier of the Declaration of Conformity, the Assessment Body shall register the Supplier for a second party assessment.

5.1.2. Second Party Assessment

The second party assessment stage is triggered by the valid registration of a Supplier, and is composed of the evaluation, the opinion formation, the publication and archiving.

5.1.2.1. Evaluation

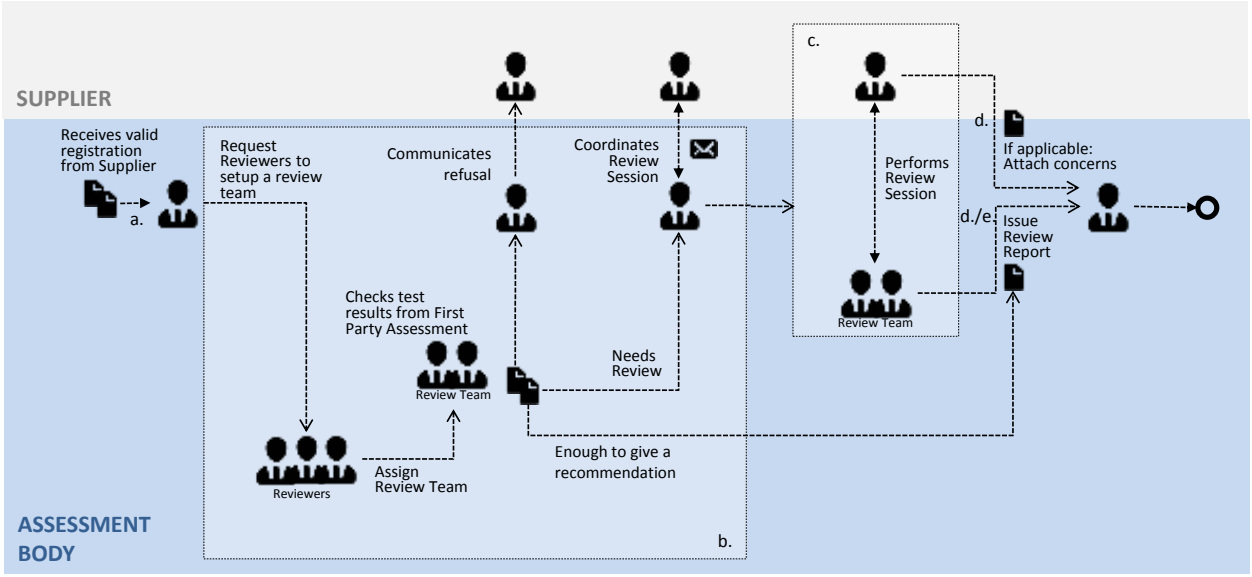

Figure 4: Evaluation process

(a) The Assessment Body shall form a Review Team in charge of the evaluation of an Application.

(b) The Assessment Body shall appoint a Reviewer to a Review Team only if the Reviewer has not previously been involved with the design or the development of the Application to be assessed by the Review Team.

On the basis of the criteria defined in the test procedures and conformity assessment procedures the Review Team shall assess the Declaration of Conformity including the supportive documentation provided by the Supplier and shall either:

(i) conclude that the Declaration of Conformity does not bring sufficient elements supporting the Conformity and ask the Assessment Body to notify the Supplier that the second party assessment process will be stopped; or

(ii) conclude that the Declaration of Conformity brings sufficient elements supporting the Conformity and request the organisation of a Review Session; or

(iii) conclude, in the case the Application has already an Attestation of Conformity on the same specifications of the IEC specifications TS 61970-600-1 and 61970-600-2, that the Declaration of Conformity does not leave any doubt on the Conformity and directly submit a review report for opinion to the Opinion Body.

In case the Review Team requests the organisation of a Review Session, the Assessment Body shall proceed to the necessary arrangements between the Review Team and the Supplier.

(c) Review session

(i) If the Supplier does not come to the Review Session or did not cancel on time, a Review Session is declared cancelled and the Assessment Body shall organise a new Review Session.

(ii) In case the Review Session indicates that the Application is not in line with the IEC specifications TS 61970-600-1 and 61970-600-2, the Supplier may ask for a second Review Session if it is in a position to deliver a new version of the Application ahead of the Review Session. The same rules and process steps as for the first Review Session shall apply.

(d) The result of the Review Session shall be documented in the review report. At the end of the Review Session the Supplier shall review if the results of the Review Session are correctly documented and agree with it. In case of disagreement with any of the results of the review report, the Supplier may ask that its concerns be attached as an annex to the review report. The Supplier shall receive a copy of the review report.

(e) The Review Team shall finalise the review report, including a recommendation on the Application. This review report, which includes the recommendation, shall not be disclosed to the supplier at this stage.

5.1.2.2. Opinion Formation

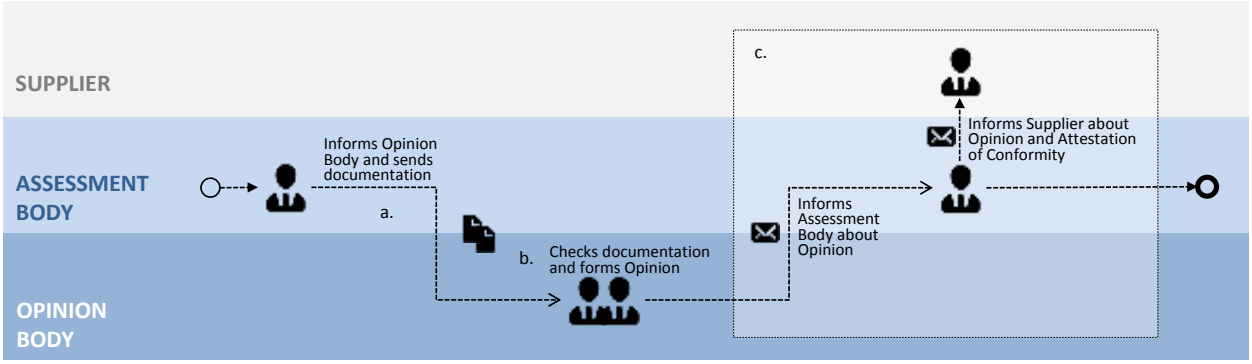

Figure 5: Opinion formation process

(a) The Assessment Body shall submit the review report of the Review Team to the Opinion Body and request the Opinion Body to issue an opinion.

(b) Before issuing an opinion on the Conformity of the Application, the Opinion Body shall consider:

(i) whether the evaluation process was followed correctly;

(ii) whether the review report gives confidence that the Application fulfils all necessary requirements of the IEC specifications TS 61970-600-1 and 61970-600-2 or use cases defined in the test procedures and within the scope of the Declaration of Conformity issued by the Supplier;

(iii) the Supplier's concerns attached to the review report, if any.

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(c) The Opinion Body shall ask the Assessment Body to notify the opinion to the Supplier and to issue, in case of positive opinion, an Attestation of Conformity. The Attestation of Conformity shall be valid for the full lifetime of a specific version of the Application, unless withdrawn in accordance with the procedure described in section 6.2.

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5.1.2.3. Publication and Archiving

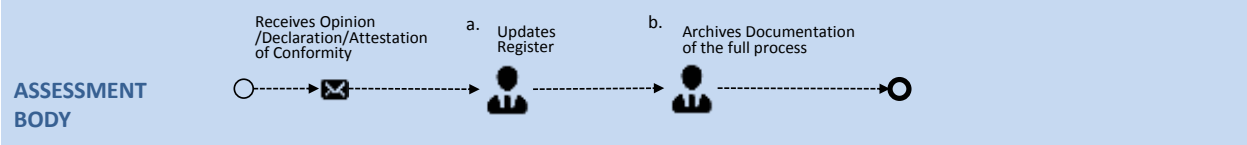

Figure 6: Publication & archiving process

(a) After each issuance by the Opinion Body of positive opinion, the Assessment Body shall update the conformity registry in accordance with the section 7.

(b) The Assessment Body shall subsequently archive the full set of documentation of the conformity assessment process and keep it available for a period of 10 years.

5.2. Second Opinion Process

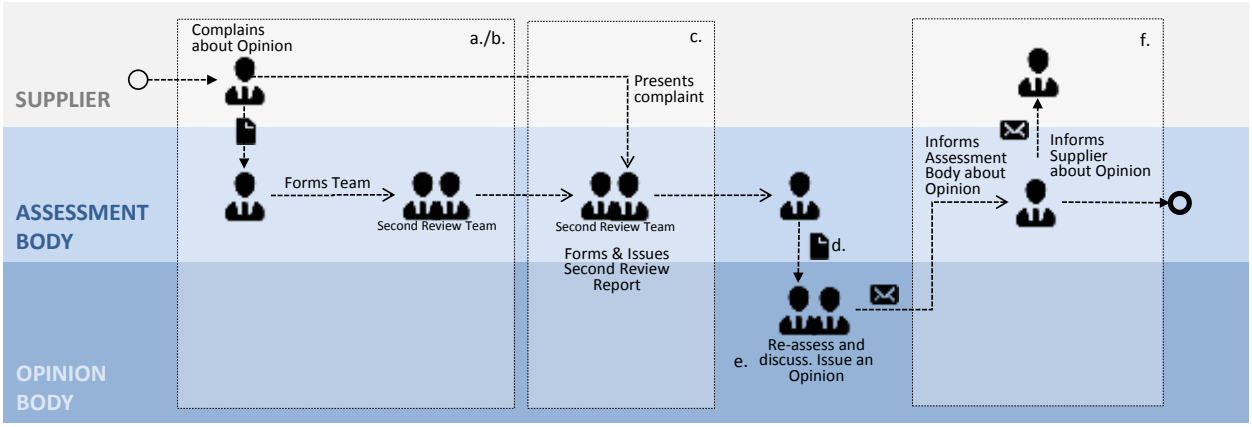

Figure 7: Second opinion process

(a) In case the Supplier disagrees with the opinion of the Opinion Body on its Application, the Supplier may file a complaint with the Assessment Body, using the template provided by the latter. The Assessment Body shall therefore initiate a second opinion process.

(b) The Assessment Body shall set up a Second Review Team, composed of Reviewers who were not part of the Review Team, in charge of issuing a second review report on the assessment of the Application. The Assessment Body shall invite the Supplier to present and discuss the complaint to the Second Review Team.

(c) The Second Review Team shall re-assess all documentation of the first party assessment and second party assessment. The Second Review Team shall take into account the presentation and discussion of the complaint, when elaborating the second review report.

(d) The Assessment Body shall submit the second review report, including a recommendation on the Application, to the Opinion Body.

(e) The Opinion Body shall re-examine the case taking into account the second review report and issue a final opinion.

(f) The Opinion Body shall ask the Assessment Body to notify the opinion to the Supplier and to issue, in case of positive opinion, an Attestation of Conformity.

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5.3. Change process

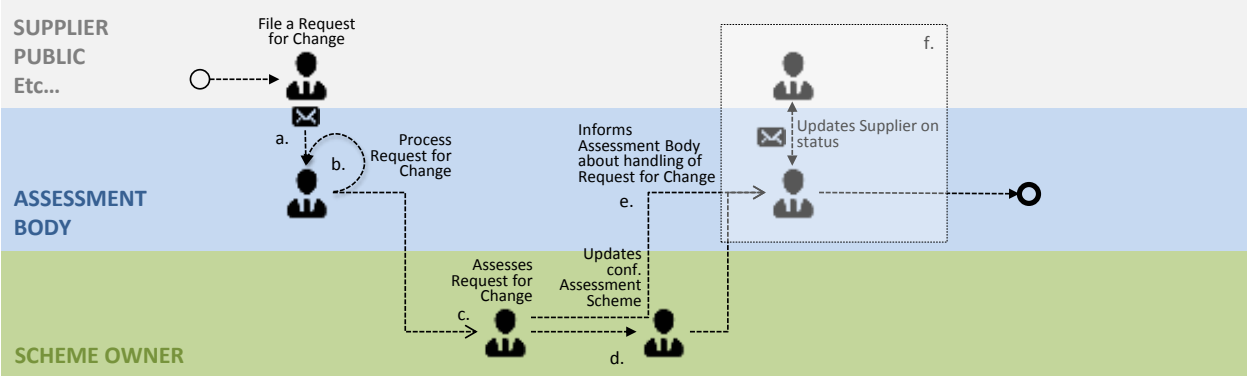

Figure 8: Change process

(a) To address a problem, a complaint or take into account an improvement opportunity, every member of the Assessment Body or of the Opinion Body, every Supplier or every other person or organization with an interest in the Scheme may file a request for change related to the Scheme and submit it to the Assessment Body.

(b) The Assessment Body shall check the change completeness and inform the Scheme Owner.

(c) The Scheme Owner shall assess the request for change in the light of the principles established under section 3 and may decide to implement the change in a new version of the Scheme.

(d) The Scheme Owner shall update the Scheme as it deems fit to implement the change.

(e) The Scheme Owner shall inform the Assessment Body of the outcome of the request for change and, in case a change has been implemented, request the Assessment Body to put in operation the new version of the Scheme implementing the change.

(f) The Assessment Body shall keep the author of the request for change updated of the status of its request for change.

6. Obligations of Suppliers

6.1. Achieving Conformity

(a) A Supplier may publicise the Conformity of its Application only if this Application received an Attestation of Conformity. In such case, the Supplier is asked to publicly warrant that the Application successfully went through the conformity assessment process and to disclose the Attestation of Conformity.

(b) A Supplier may not publicise the Conformity of its Application, if its Application did not receive an Attestation of Conformity or, if such Attestation of Conformity was withdrawn.

6.2. Maintaining Conformity

(a) The Supplier of an Application that received an Attestation of Conformity shall ensure that the Application continues to conform to the specified requirements. In case the Supplier does not manage to maintain the Conformity of its Application, it shall notify it without delay to the Assessment Body.

(b) The Assessment Body has the right to audit the Supplier's claims of Conformity in case of a reasonable claim from a user of the Application that the Application is not in line with the IEC specifications TS 61970-600-1 and 61970-600-2.

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(c) If an Application which received an Attestation of Conformity is found by any means to no longer be in line with the IEC specifications TS 61970-600-1 and 61970-600-2, the Assessment Body shall ask the Supplier, by written notice to:

(i) provide the Assessment Body with sufficient proof supporting that the Application is still in line with the IEC specifications TS 61970-600-1 and 61970-600-2; or

(ii) rectify the non-conformity and provide the Assessment Body with sufficient proof supporting that the Application is anew in line with the IEC specifications TS 61970-600-1 and 61970-600-2.

(d) If the Supplier manages to take one of the above actions, the Assessment Body should terminate its audit, archive the full set of documentation related to the audit and keep it available for a period of 10 years.

(c) If the Supplier fails to take one of the above actions, the Assessment Body shall notify to the Supplier the withdrawal of the Attestation of Conformity of the Application. After each withdrawal, the Assessment Body shall update the conformity registry in accordance with the section 7.

The Supplier shall cease publicising the Conformity of its Application. The Supplier shall, at its own expense, remove any existing publicity of the Conformity of its Application from all subsequent production of the Application, from all sales literature and materials.

7. Conformity Registry

(a) The Assessment Body shall maintain a Conformity Registry that lists all Applications that received an Attestation of Conformity.

(b) The Conformity Registry shall contain the Supplier's name, the Application's name and version, the reference to the version of the IEC specifications TS 61970-600-1 and 61970-600-2 against which the Application was assessed, the date of the assessment and the Attestation of Conformity.

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