



classification, certification, inspection & testing

# RULES FOR THE VALIDATION AND VERIFICATION OF ENERGY EFFICIENCY PROJECTS

**Valid from 19 November 2014**

RINA SERVICES S.p.A.

Via Corsica, 12 – 16128 Genova – Italia

Tel. +39 01053851 – Fax: +39 010535100

[www.rina.org](http://www.rina.org)

## 1. OVERVIEW

### 1.1 SCOPE

These Rules define the procedures applied by RINA to validate and verify energy efficiency projects put in place to demonstrate an estimated (validation) or obtained (verification) energy saving.

For every validation and verification of energy efficiency projects, RINA can publish specific rules/guidelines integrating the requirements of these Rules.

Validation is a systematic, independent and documented process of a project plan against agreed validation criteria.

Verification is a systematic, independent and documented process for consumption reduction, determined by an approved and validated project plan, against agreed verification criteria.

RINA applies its current fees and guarantees fairness and uniformity of application.

RINA may legitimately refuse validation and verification requests related to organisations and/or their projects/activities that are subject to restriction, suspension or proscription by a Public Authority.

In relation to the application of these Rules, RINA provides no form of advice.

### 1.2 PRINCIPLES FOR VALIDATION AND VERIFICATION

RINA recognises key guiding principles of the validation and verification processes and will conduct all the activities to ensure accuracy, conservatism, relevance, credibility, reliability, completeness, consistency, transparency, impartiality, independence and safeguarding against conflicts of interest and confidentiality.

## 2. DEFINITIONS

**Energy Efficiency:** ratio between the results in terms of efficiency, services, goods or energy, as output performance, and the input energy. The ratio is composed of an output intended as the outcome of a performance, service, or the energy output, in the client's energy supply-demand system, and the input consisting of the energy introduction into the same system (definition from D.Lgs.115/2008).

**TOE:** The tonne of oil equivalent is a unit of energy defined as the amount of energy released by burning one tonne of crude oil. It is approximately 42 gigajoules, although as different crude oils have different calorific values, the exact value is defined by convention; several slightly different definitions exist. The toe is sometimes used for large amounts of energy.

## 3. CONTRACT REVIEW

### 3.1 REQUEST OF VALIDATION AND VERIFICATION

Organisations wishing to obtain validation and verification of their plan of Energy Efficiency project must provide RINA with the data related to the assertion, by sending the latest revision of the informative questionnaire form or the same data in another format.

These data will be used by RINA to make its offer.

RINA can proceed with the offer if at least the following data/documentation are available:

- name and address of the organisation (client, subject stipulating the contract with RINA);
- title of the project;
- location of the project site/s;
- indication of the applied methodology(ies);
- agreed scheme/s;
- relative size (in TOE) of the energy saving;
- all the information reported in the informative questionnaire.



## 3.2 CONTRACT

Organisations must formalise their order by sending RINA the request form or a contract duly signed by the Chief Executive Officer or authorised representative, by way of a power of attorney.

On receipt of the request form or the signed contract and the related documentation/annexes, and after a preliminary review to check their completeness, RINA will inform the organisation of its acceptance of the order.

Only after RINA notifies acceptance of the order to the organisation, is the contract between RINA and the organisation considered stipulated.

The contract stipulated between RINA and the organisation covers:

- Document/desk review of the organisation's documents;
- Follow-up actions
  - o telephone or e-mail interviews;
  - o on-site visit/assessment, which is at the discretion of RINA, in relation to the nature of the energy efficiency project in all other cases;
- Any additional services stated in the offer.

## 4. SELECTION OF THE TEAM

### 4.1 SELECTION OF THE TEAM

RINA selects the team who will perform the activity on the basis of the knowledge, skills and competency required, taking into consideration the validation and verification criteria/requirements of the agreed scheme.

The team is fully independent of all aspects of the project.

### 4.2 TEAM COMMUNICATION

In advance of the validation or verification, RINA will notify the organisation in writing of the names of the team members; the organisation may object to these

appointments, within 5 working days of the notification, giving their reasons.

RINA will reconstitute the team in response to any valid objection.

## 5. VALIDATION OF ENERGY EFFICIENCY PROJECTS

RINA will evaluate the project documents and the project's compliance with the validation criteria/requirements of the agreed scheme.

### 5.1 DOCUMENT REVIEW

The organisation is to make available to RINA any information/documents requested.

Normally, the documents that the organisation will be required to provide RINA are included in the following:

- Project plan (word and pdf version) including the monitoring report;
- Calculation spread sheet showing the estimated energy savings;
- List of applicable legislation, limited to environmental legislation;
- List of environmental/operational authorisations needed.

RINA may, at its discretion, request also other documents for review, considered important for the purpose of validation.

The team will review the project documents to ensure that they meet the established validation criteria/requirements.

Any issues that cannot be sustained by sufficient monitoring, or assumptions that the team cannot fully recognise or approve of will be investigated and tested further.

### 5.2 FOLLOW-UP ACTIONS

Following the document review, the team will identify additional questions and issues (objective evidence) that need to be addressed with the organisation.

The process requires an on-site visit at the discretion of RINA, in relation to the nature of the project.



The date of the on-site visit will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.

### 5.3 VALIDATION REPORT

At the end of the validation process, the applicant organisation is provided with a validation report which summarises any related findings, contains an opinion on conformity to the identified validation criteria and a conclusion, with a reasonable level of warranty, that the project plan is going to achieve the estimated amount of energy saving.

## 6. VERIFICATION OF ENERGY EFFICIENCY PROJECTS

Verification is the periodic independent review and ex post determination of the energy savings that have occurred as a result of a project activity, during the verification period, described in a monitoring report.

### 6.1 DOCUMENTAL REVIEW

The organisation is to make available to RINA the project data as well as any other information/documents requested.

Normally, the documents that the organisation will be required to provide to RINA are included in the following:

- Project plan (word and pdf version) including approved monitoring plan;
- Monitoring report;
- Calculation spread sheet showing the estimated energy savings;
- List of applicable legislation, limited to environmental legislation;
- List of environmental/operational authorisations;
- Any other previous verification report.

The team will review the assertion documents to ensure that they meet the verification criteria of the agreed scheme.

The document review ensures that the Monitoring Report and other support

documents provided are complete, verifiable and compliant with the applicable standards.

Any issues that cannot be sustained by sufficient monitoring, or assumptions that the team cannot fully recognise or approve of will be investigated and tested further.

### 6.2 FOLLOW-UP ACTIONS

Following the document review, the team will identify additional questions and issues (objective evidence) that need to be addressed with the organisation.

The process always requires an on-site assessment.

The date of the on-site assessment will be agreed with the organisation sufficiently in advance and officially confirmed at least one week before.

This on-site assessment involves:

- An evaluation of the implementation and the operation of the project in order to verify it has been implemented and made operative according to the approved project and that all its physical features (technology, assets and all monitoring and measurement items) have been put into use;
- Interview with the personnel involved in order to confirm that the monitoring system and data collection procedures have been implemented according to what is contained in the monitoring plan included in the approved project plan;
- An examination on the flux of information that has led to the reported parameters;
- Evidence supporting energy savings;
- A monitoring item check, including calibration performance and the observation of monitoring practices with respect to the project requirements and the selected methodology;
- The identification of quality control and quality assurance procedures implemented to prevent or identify and correct any error or omission in the reported monitoring parameters;
- Status of compliance of the project in relation to the applicable environmental legislation and to the

environmental/operational authorisations  
in force.

### **6.3 VERIFICATION REPORT**

At the end of the verification process, the applicant organisation is provided with a Verification Report which summarises any related findings, contains an opinion on conformity to the identified verification criteria and a conclusion, with a reasonable level of warranty, that the Monitoring Report for the defined verification period does not contain material errors, omissions or untruthful representations.

## **7. CONTRACTUAL CONDITIONS**

### **7.1 CONTRACTUAL CONDITIONS**

For any issue not covered by these Rules, reference is to be made to the "*General Contract Conditions governing system, product and personnel certification*", available on the website [www.rina.org](http://www.rina.org).



---

classification, certification, inspection & testing

Publication: RC/C.104

English edition

RINA SERVICES S.p.A.  
Via Corsica, 12 - 16128 GENOVA  
Tel. +39 010 53851 - Fax: +39 010 5351132  
E-mail [info@rina.org](mailto:info@rina.org) - Web [www.rina.org](http://www.rina.org)

---

Technical Rules