

ISO 50021:2019



NBN ISO 50021:2020



Energy management and energy savings – General guidelines for selecting energy savings evaluators ISO 50021:2019

Valid from 27-05-2020

ICS: 27.015

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INTERNATIONAL STANDARD

ISO 50021

First edition
2019-02

Energy management and energy savings — General guidelines for selecting energy savings evaluators

*Lignes directrices générales pour la sélection des personnes chargées
d'évaluer les économies d'énergie*



Reference number
ISO 50021:2019(E)

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Published in Switzerland

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ISO 50021:2019(E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 301, *Energy management and energy savings*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document provides guidelines for the selection of energy savings evaluators, i.e. people conducting energy savings evaluations who have the required knowledge and skills to determine energy savings leading to credible and reliable results. Energy savings evaluations are widely used for assessing programme effects and policy impacts, and for validation and/or verification of results at project, organization and region levels.

At the project level, energy savings evaluation results can help entities reduce operating costs and determine financial returns, help government regulators understand policy impacts, and help financing institutions make loan or grant decisions.

At the organization level, energy savings evaluation results can help leaders of organizations reduce operating costs and control risks.

At the region level, energy savings evaluation results can help governments understand and improve the impacts of policies.

Evaluation methods to determine energy savings vary depending on the level (project, organization or region). Different knowledge and skills are required for each level.

By selecting an appropriate energy savings evaluator with the required knowledge and skills, it is possible to properly calculate the energy savings and to implement climate and energy policy agreements appropriately.

Energy management and energy savings — General guidelines for selecting energy savings evaluators

1 Scope

This document gives guidelines for selecting energy savings evaluators to determine ex-post (realized) energy savings for projects, organizations and regions. It gives general principles and identifies the key factors to consider. It also defines roles and responsibilities, recommends the required competence and provides key elements for assessing the knowledge and skills of energy savings evaluators.

At the project and organization level, this document is applicable to both internal and external energy savings evaluators.

Selecting evaluators who calculate predicted energy savings is out of the scope of this document.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

energy savings

reduction of energy consumption compared to an energy baseline

Note 1 to entry: Energy savings may be the result of implementation of an action(s) or of autonomous progress.

Note 2 to entry: An evaluation of savings from implementation of actions may need to identify the separate impacts of the actions compared to other factors.

[SOURCE: ISO 17743:2016, 3.8, modified — The notes to entry have been replaced.]

3.2

energy savings evaluation

systematic process to measure, quantify, verify, analyse and report *energy savings* (3.1) within a defined boundary

3.3

energy savings evaluator

individual, or a team of people, conducting an *energy savings evaluation* (3.2)

Note 1 to entry: The internal energy savings evaluator is affiliated with the implementer of the evaluated project or evaluated organizations.

Note 2 to entry: The external energy savings evaluator who is being entrusted or commissioned is not affiliated with the interested parties or entities to be evaluated.