
**Biogas — Biogas production,
conditioning, upgrading and
utilization — Terms, definitions and
classification scheme**

*Biogaz — Production, traitement, épuration et utilisation du biogaz
— Termes, définitions et classification*



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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).

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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 255, *Biogas*.

Introduction

The technical committee on biogas (ISO/TC 255) was established in 2011 in order to

- provide liberalization and facilitation for international trade of biogas installations,
- contribute to international cooperation on technical regulations, standards and assessment procedures,
- curb discriminatory technical requirements as the main form of trade protectionism, and
- reduce and eliminate the technical barriers for international trade of biogas installations.

This document about terms, definitions and classifications is applicable for biogas production by anaerobic digestion, gasification from biomass and power to gas from biomass sources, biogas conditioning, biogas upgrading and biogas utilization.

The availability of a set of agreed terms and definitions for biogas installations, as well as a classification scheme for the whole biogas chain, is necessary in order to

- moderate the communication between the different biogas parties through meaningful discussions,
- facilitate development of regional and national regulations and incentive programs to promote biogas production and application,
- contribute to the reinforcement of biogas installations' safety and business competitiveness with recognized terms and definitions that clarify the actors' expectations related to procurement, contracts and services as well as reporting on biogas related action plans and road maps, and
- contribute to the use of standards by facilitating their development and furthering the users' understanding and application of standards.

ISO/TC 255 intends to promote international technology exchange and to accelerate international application of biogas (products) and equipment by developing and maintaining globally harmonized standards.

Biogas — Biogas production, conditioning, upgrading and utilization — Terms, definitions and classification scheme

1 Scope

This document defines terms and describes classifications related to biogas production by anaerobic digestion, gasification from biomass and power to gas from biomass sources, biogas conditioning, biogas upgrading and biogas utilization from a safety, environmental, performance and functionality perspective, during the design, manufacturing, installation, construction, testing, commissioning, acceptance, operation, regular inspection and maintenance phases.

Biogas installations are, among others, applied at industrial plants like food and beverage industries, waste water treatment plants, waste plants, landfill sites, small scale plants next to agricultural companies and small scale household installations.

The following topics are excluded from this document:

- boilers, burners, furnaces and lightening, in case these are not specifically applied for locally produced biogas;
- gas-fuelled engines for vehicles and ships;
- the public gas grid;
- specifications to determine biomethane quality;
- transportation of compressed or liquefied biogas;
- transportation of biomass or digestate;
- assessment and determination whether biomass is sourced sustainably or not.

This document describes the following for information purposes as well:

- the parameters to determine the size (e.g. small, medium-sized, or large scale);
- the parameters to determine the type of installation (e.g. domestic, industrial);
- the parameters to describe the type of technique;
- terms and processes in order to develop health, safety and environmental protection guidelines for biogas installations.

NOTE For an explanation of the Scope, see [Annex A](#).

2 Normative references

There are no normative references in this document.