TAASTUVENERGIA TOOTMISE VÕRGUGA ÜHENDAMINE. TERMINID JA MÄÄRATLUSED

Grid integration of renewable energy generation - Terms and definitions (IEC 62934:2021)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN IEC 62934:2021 sisaldab Euroopa standardi EN IEC 62934:2021 ingliskeelset teksti.	This Estonian standard EVS-EN IEC 62934:2021 consists of the English text of the European standard EN IEC 62934:2021.
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ICS 27.010, 29.020

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN IEC 62934

June 2021

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English Version

Grid integration of renewable energy generation - Terms and definitions (IEC 62934:2021)

Intégration de la production d'énergie renouvelable aux réseaux électriques - Termes et définitions (IEC 62934:2021)

Netzintegration erneuerbarer Energieerzeugung - Begriffe, Definitionen und Symbole (IEC 62934:2021)

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European foreword

The text of document 8A/75/FDIS, future edition 1 of IEC 62934, prepared by SC 8A "Grid Integration of Renewable Energy Generation" of IEC/TC 8 "System aspects of electrical energy supply" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62934:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-02-28
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IEC 61400-21-1:2019	NOTE	Harmonized as EN IEC 61400-21-1:2019 (not modified)
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IEC 61400-27-2:2020	NOTE	Harmonized as EN IEC 61400-27-2:2020 (not modified)

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Grid integration of renewable energy generation – Terms and definitions

Intégration de la production d'énergie renouvelable aux réseaux électriques – Termes et définitions

IEC 62934:2021-04(en-fr)

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Intégration de la production d'énergie renouvelable aux réseaux électriques – Termes et définitions

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GRID INTEGRATION OF RENEWABLE ENERGY GENERATION – TERMS AND DEFINITIONS

FOREWORD

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The text of this International Standard is based on the following documents:

Draft	Report on voting
8A/75/FDIS	8A/79/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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- replaced by a revised edition, or
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INTRODUCTION

The purpose of this terminology document is to provide terms and definitions for all publications under the responsibility of SC 8A. In this document, renewable energy generation is the electric power generation which uses renewable energy as its primary source for the conversion into electricity.

All SC 8A normative documents to be published should keep consistency with this International Standard (IS). This IS will be revised together with other SC 8A publications in order to avoid mismatches when necessary.

From the technical point of view, grid integration of renewable energy generation is a interdisciplinary complex technical field which is concerned with basic equipment, system integration, control and protection, operation and dispatch, market and trade and so on. Without a strong standardization of terminology, focal terms can have a different understanding by different countries, parties, and technical areas. Harmonised vocabulary is critical also from the market point of view. It impacts economics and this can become a barrier to commerce. The correct comparison among different options is fundamental, therefore basic terms and definitions impact economic decisions.

Several IEC product standards give definitions of certain terms which are necessary for the understanding of how to design, manufacture and use of those products. The International Electrotechnical Vocabulary (IEV, IEC 60050, http://www.electropedia.org) and the IEC Glossary (http://std.iec.ch/glossary) allow on-line access to this information.

Terms and definitions of this document have been harmonized with the IEV, the IEC Glossary and other IEC documents as far as possible. Definitions not included in this terminology standard may be found elsewhere in other IEC documents.

The use of abbreviations has been optimized, on the one hand to avoid tedious repetition and, on the other hand, to avoid confusion. A minimum set of abbreviations is identified in Clause 4 of this document; the other terms are written out in full spelling when needed.

GRID INTEGRATION OF RENEWABLE ENERGY GENERATION – TERMS AND DEFINITIONS

1 Scope

This terminology document provides terms and definitions in the subject area of grid integration of renewable energy generation. The technical issues of grid integration mainly focus on the issues caused by renewable energy generation with variable sources and/or converter based technology, such as wind power and photovoltaic power generation. Some renewable energy generations such as hydro power and biomass power with a relatively continuously available primary energy source and a rotating generator are conventional sources of generation, and are therefore not covered in this document.

The intention of this document is to answer the question "what do the words mean" and not "under what conditions do the terms apply".

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:

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

3.1 Terms and definitions for renewable energy generation

3.1.1
renewable energy
RE
primary energy, the source of which is constantly replenished and will not become depleted

Note 1 to entry: Examples of renewable energy are: wind, solar, geothermal, hydropower, etc.

Note 2 to entry: Fossil fuels are non renewable.

[SOURCE: IEC 60050-617:2009, 617-04-11 modified, examples of renewable energy are added in Note 1 to entry.”]

3.1.2
variable renewable energy
VRE
subset of renewable energy, the source of which is not continuously available and cannot be stored or controlled

EXAMPLE Wind energy, solar energy, wave energy.