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TECHNICAL SPECIFICATION

AMENDMENT 1

Microgrids –
Part 2: Guidelines for operation

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Amendment 1 to IEC TS 62898-2:2018 has been prepared subcommittee 8B: Decentralized electrical energy systems, of IEC technical committee 8: System aspects of electrical energy supply.

The text of this Amendment is based on the following documents:

Draft	Report on voting
8B/164/DTS	8B/195/RVDTS

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 Amendment 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/publications/.

A list of all parts in the IEC 62898 series, published under the general title *Microgrids*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

1 Scope

Delete, in Note 3, the terms "intended to be".

2 Normative references

Replace "IEC 61000-4-30:2008" *with* "IEC 61000-4-30:2015" *and delete Footnote 2.*

Replace "IEC 61968-1," *with* "IEC 61968-1:2020,".

Replace "IEC 61850-3," *with* "IEC 61850-3:2013,".

Replace "IEC 61850-4," *with* "IEC 61850-4:2011,".

Replace "IEC 61850-5," *with* "IEC 61850-5:2013,".

Replace "IEC TS 62749," *with* "IEC TS 62749:2020,".

Replace "IEC TS 62786," *with* "IEC TS 62786:2017,".

3 Terms and definitions

3.18

microgrid

Replace, in the angle brackets, "systems" with "system".

Replace, in the definition, "that acts as a single controllable entity and is able to operate in both grid-connected and island mode" *with* "forming a local electric power system at distribution voltage levels, that acts as a single controllable entity and is able to operate in island mode".

Replace Note 1 to entry with the following:

Note 1 to entry: This definition covers both (utility) distribution microgrids and (customer owned) facility microgrids.

Delete the modification in the source.

3.22
power factor

Add, in the definition, "of the absolute value" *between* "ratio" *and* "of the active power".

Replace, in Note 1 to entry, "is equal to cos φ" *with* "is the absolute value of the active factor".

Delete Note 2 to entry and Note 3 to entry.

Delete the modification in the source.

5 Control of microgrids

5.2.1.1 Active power control and frequency regulation

Add, after the first sentence, the following new text:

Typically, the transmission system operators (TSO) define the system operation requirements regarding frequency regulation. The distribution system operator (DSO) passes these requirements to its network customers.

5.2.2 Control of the island mode

In the second paragraph, replace "alternative control schemes" *with* "options of control schemes".

In the third paragraph, replace "U/f mode" with "U-f mode".

In the third paragraph, replace "shall operate in P/Q mode" *with* "should operate in P-Q mode".

Add, at the end of the third paragraph, the following new text:

The frequency regulation ability of DER in the island mode shall be similar to the isolated microgrid as described next in 5.3.

5.3 Control of the isolated microgrid

Delete, in the paragraph after the Note, the sentence "The step of DER active power output reduction under normal operation shall not exceed a given gradient (e.g. 10 % of the maximum power output per minute)".

Replace the existing Note with the following: