

Status Report

New Recommendation: DC Electricity Metering

PG Convenor, Katya Delak (US)

RLMO RT Report, 10 June 2025

Context

- TC12 is Parent Technical Committee.
- Discussions under PG1 – revisions for R46: Electricity Meters
- Initial decision: Exclude DC metering from R46 revision
 - 1st PG meeting, May 2018
- May 2021 meeting: Subgroup formed for DC Metering
 - Include DC metering as annex
 - Revisit as a PG
 - No progress from this point until June 2023.
- June 2023 meeting: Decision to form a new project.
 - Too difficult to maintain AC & DC in same recommendation

Existing Standards

ANSI C12.32-2021 American National Standard for Electricity Meters for the Measurement of DC Energy

ANSI also has a subcommittee on developing revenue grade DC transducers.

IEC 62053-41 Electricity metering equipment - Particular requirements - Part 41: Static meters for DC energy (classes 0,5 and 1)

EN 50470-4 (*e.g. BS EN 50470-4:2023 Electricity metering equipment Particular requirements. Static meters for DC active energy (class indexes A, B and C)*)

PG Meeting Report

Met on week of TC12 meetings in Prague.

13-14 March for TC12/p4: DC Electricity Metering

Countries Represented:

- Australia
- Brazil
- Canada
- China
- Czech Republic
- Germany
- Japan
- Korea
- Netherlands
- Serbia
- Slovenia
- Spain
- Sweden
- Switzerland
- United Kingdom

Progress

- 1WD circulated April 2024.
- Comments combined with first pass resolution in advance of PG meeting.
- Remaining comments addressed at PG meeting.

Thematic Considerations

- Review of scope - Exclusion of EVSE was confirmed
- Testing approach: meter + transducer combinations to be tested together
- Interval meters to be excluded: no sufficient use cases
- Demand meters to be excluded

Next Steps

- Progress to 1CD desired; may need WDs prior.
- Need to develop Parts 3 & 4 (Type Evaluation & Test Report Formats).
- No subgroups yet needed/formed.
- Work on subsequent WD taking into account PG discussions yet to begin.
- Interim PG work may be online, at least until 1CD.

TC 12 Organizational Matters

- No need to have all PGs meet at a single meeting
- PG convenors to synchronize across projects to prevent duplication
- TC 12 structural changes considered to allow sub-committee for different topics or projects
 - No separate SC desired for EVSE
 - Not certain if SC desired for DC metering

Thank you.

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