

# Urgent memo

**To** All Metering Equipment Providers  
All Authorised Test Houses

**Copies** All Auditors

**From** Grant Benvenuti

**Date** 17 June 2014

**Subject** Metering installation tests for category 1 metering installations

## For your action

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It has recently come to the Authority's attention that some authorised test houses (ATHs) may not be performing all the mandatory commissioning tests when certifying category 1 metering installations using the selected component certification method. This memo is a reminder to all relevant participants of the testing requirements and responsibilities for category 1 metering installations.

Metering equipment providers (MEPs) are obliged to ensure that the tests required for certification are carried out by an ATH. As testing is a mandatory part of certification<sup>1</sup>, any metering installation where the required testing has not been performed is not certified. MEPs must satisfy themselves that the required testing has been performed and should also ensure the testing is auditable<sup>2</sup>.

If an ATH uses the selected component certification method, under clause 11(3)(a) of Schedule 10.7, it must perform the tests contained in Table 3 of Schedule 10.1:

- row 1 for initial certification
- row 3 for recertification without replacing the components
- row 4 for recertification after component replacement).

Additional information about some of the tests is contained in clause 9 of Schedule 10.7.

The tests that must be performed are:

- 1) Design – a check that the metering installation functions in accordance with the design report
- 2) Software security and communication equipment – confirmation that the software is password protected and the communication system, if fitted, is functional
- 3) Wiring check – a check that the wiring is configured in accordance with the design report and all wires are correctly installed and terminated
- 4) Component certification check – a check that an ATH has certified all components in the metering installation, in accordance with Schedule 10.8

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<sup>1</sup> Clauses 8(1) and 11(3)(a) of Schedule 10.7

<sup>2</sup> Clause 4(1)(d) of Schedule 10.7

- 5) Review of compensation factors – a check that the certifying ATH has correctly calculated and applied the compensation factor
- 6) Raw meter data output – this test has two parts:
  - a. for all category 1 metering installations – a test at two different measured load values and then checking meter accurately measures the increase. This is done by either counting pulses over a measured time period or recording the register increment, and comparing that to the expected values
  - b. for category 1 metering installations to be certified as half-hour – an additional test, either a full half-hour load check onsite, or confirmation that the back office (usually the MEP) confirms that the sum of the half hour consumptions equals the increment in the cumulative register for a measured period (usually one full day midnight to midnight)
- 7) Supply polarity – a check that the supply phase (or phases) is correctly connected to the load phase (or phases) and the supply neutral is correctly connected to the load neutral
- 8) Register advance – a check that the register is actually advancing. For a mechanical register, the dial must actually move forwards, for a digital (LCD) register the lowest value place digit must increment up
- 9) Installation or component configuration – a check that the configuration of the components is in accordance with the design report
- 10) For recertification under row 3 only, a prevailing load test – a comparison test between the meter and a working standard, with the result being less than the total allowable error.

The certifying ATH must keep records of the test results. If a metering installation does not pass all tests, the ATH must not certify the metering installation (see clause 10 of Schedule 10.7).

Please note that, with the exception of the smart meter tests discussed below, the requirements to perform these tests were in place in the previous version of Part 10. The only change was to include a simplified half hour load check test for category 1 and 2 meters (smart meters) as the full half-hour load check is not required for these meters. With this exception, there have been no new tests introduced with the introduction of the new Part 10 in August 2013, so ATHs should have always been performing these tests.

Each one of these tests is designed to check a particular part of the metering installation and every test is part of ensuring accurate market settlement and customer billing.

The Authority is considering performing audits of ATHs and MEPs to ensure that they are complying with these obligations.

The Authority acknowledges that there are many ways to perform these tests and as such has not specified a method that ATHs must use. If you have any questions on the application of these tests, or on the ability of your methodology to achieve the required outcome, please send your query to [market.operations@ea.govt.nz](mailto:market.operations@ea.govt.nz)



Grant Benvenuti  
**Manager Market Operations**