

Memo

To All participants
From Ron Beatty
Date 7 April 2016
Subject Connection of electric vehicles to charging stations

The Authority would like to remind all participants that electric vehicle charging stations must be connected in accordance with the Electricity Industry Participation Code 2010 (Code).

This means that all electrical vehicle charging stations that are not connected within a customer's installation, but are connected to a distributor's network:

- must be connected and energised in accordance with the requirements of the Code
- must have a trader recorded in the registry for that ICP identifier
- must have a metering installation that complies with the requirements of the Code.

The Code requirements regarding connection and measurement for any customer installation apply to electric vehicle charging stations connected to a distributor's network, and are set out in summary form below.

Reconciliation participants must provide submission information to the reconciliation manager as part of the reconciliation process for ICP identifiers that they are recorded in the registry as responsible for trading electricity.¹

Connection and energisation requirements of a customer installation

New connections

For a new connection that requires its first energisation, the connection:

- may be required to comply with connection requirements specified by the distributor
- must have an ICP identifier in the registry²
- must not be electrically connected unless requested to do so by the trader at the ICP³
- may be energised, only if:
 - a. the distributor authorises the energisation⁴
 - b. the trader recorded in the registry as being responsible for the point of connection also authorises the energisation⁵

¹ Clause 15.4(2)

² Clause 1 of Schedule 11.1

³ Clause 10.31(a)

⁴ Clause 10.33(1)

- c. the distributor has not de-energised the point of connection for a safety reason⁶
- d. the energisation does not breach the Electrical (Safety) Regulations 2010.⁷

Existing de-energised connections

For existing de-energised connections that have previously been energised, the connection may be re-energised only if:

- the trader (reconciliation participant) recorded in the registry as being responsible for the point of connection authorises the energisation. In authorising the energisation, the trader must ensure that there is 1 or more metering installations in place, and that all electricity is quantified in accordance with the Code⁸
- the distributor has not de-energised the point of connection for a safety reason⁹
- the energisation does not breach the Electrical (Safety) Regulations 2010.¹⁰

Existing energised connections

For existing energised connections, a change to the customer's load (such as through the addition of plug in electric vehicle chargers) may change the requirements for the connection to the distributor's network. In particular:

- changes to an ICP made by a customer, such as adding a metered electric vehicle charger to an existing ICP that conveys unmetered load, must be taken into account by the trader responsible for that the ICP in the registry. An increase of load at that ICP may require the following notifications:
 - a. notification to the registry of a metering equipment provider (MEP) and the installation of a certified metering installation
 - b. notification to the registry of an MEP
 - c. notification to the distributor as the connection requirements and eligibility for tariff rates may have changed
- both the existing load at the ICP and any additional load must be quantified in accordance with the Code.¹¹

In the case of a point of connection which contains unmetered load

Unmetered load must be recorded and quantified as set out in the Code and includes shared unmetered load or distributed unmetered load.¹² Traders must notify the registry if the type and capacity of unmetered load consumed at the ICP changes.¹³

Note that a trader (retailer) may treat an ICP as unmetered load if:

- the retailer reasonably expects the load at the ICP to be no more than 3000 kWh per annum.¹⁴ An electric vehicle charger that is used once every two days to deliver an 80% charge to an electric vehicle is unlikely to comply with this requirement¹⁵

⁵ Clause 10.33(1)

⁶ Clause 10.33(3)(a)

⁷ Clause 10.33(3)(b)

⁸ Clause 10.24 and 10.33(1)

⁹ Clause 10.33(3)(a)

¹⁰ Clause 10.33(3)(b)

¹¹ Clause 10.24

¹² Clause 10.14

¹³ Clauses 9 and 10 of Schedule 11.1

- the retailer reasonably expects the load at the ICP to be no more than 6000 kWh per annum if the load is a predictable load of a type approved and published by the Authority.¹⁶ Electric vehicle chargers are not a predictable load approved by the Authority.

Measurement of electricity conveyed

Traders, for each ICP that they are responsible for in the registry, must ensure:

- for each ICP that does not solely convey unmetered load, there is an MEP¹⁷
- that electricity conveyed is measured in accordance with the Code.¹⁸

MEPs are responsible for providing a Code compliant metering installation for each ICP at which they are designated as the MEP in the registry.¹⁹

If you have any questions about this memo, please send an email to the market operations team at marketoperations@ea.govt.nz.



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¹⁴ Clause 10.14(2)(b)(i)

¹⁵ Depending on the battery capacity and charging time

¹⁶ Clause 10.14(2)(b)(ii)

¹⁷ Clause 10.18

¹⁸ Clause 10.24

¹⁹ Clause 10.13(3) and 10.13(4)