

Connection and electrical connection

Guidelines

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Version control

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2	10 April 2018	Draft for consultation
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Overview

These guidelines (guidelines) provide an operational view of the processes for connecting and electrically connecting of network supply points (NSPs) and installation control points (ICPs). The Code requirements for these processes are contained in Parts 10 and 11 of the Electricity Industry Participation Code 2010 (Code).

These guidelines also set out best practice for new connections that are ICPs. The guidelines have a particular focus on reconciliation rather than the operations and maintenance of a network.

Disclaimer

These guidelines are not part of the Code. They are provided for general information only and not as legal advice, and do not establish any legal obligation.

Although the Electricity Authority (Authority) has taken every care in the preparation of the content of these guidelines, the Authority offers no warranty (express or implied) as to the accuracy, completeness, or legality of that content. The Authority is not liable or responsible to any persons for direct or indirect loss or damage that may result from the action or failure to act by any person in reliance on these guidelines.

The publishing of these guidelines do not place any obligation on the Authority to follow any interpretation contained in it when carrying out any of its functions under the Electricity Industry Act 2010 (Act).

The Code places many obligations on network owners, retailers, and metering equipment providers (MEPs) and should be consulted in full by these parties. The Authority suggests if you are in doubt regarding these obligations that you ask for further advice.

Specific reference to other relevant enactments must be made when reading these guidelines. These guidelines do not overwrite:

- a) operating procedures
- b) safety practices and roles and responsibilities defined under health and safety legislation
- c) other relevant enactments.

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1 Introduction

- 1.1 These guidelines discuss the process and Code requirements of connecting a point of connection (POC) to a network and the subsequent electrical connection of the POC.
- 1.2 Part 10 of the Code, and other associated parts, places the compliance obligations of category 1, or above, metering installations for an electrically connected POC on the metering equipment provider (MEP).¹
- 1.3 The network owner has the primary responsibility for the connection of a POC to the supply of electricity. However, the reconciliation participant and MEP also have responsibilities relating to when the POC can be electrically connected.

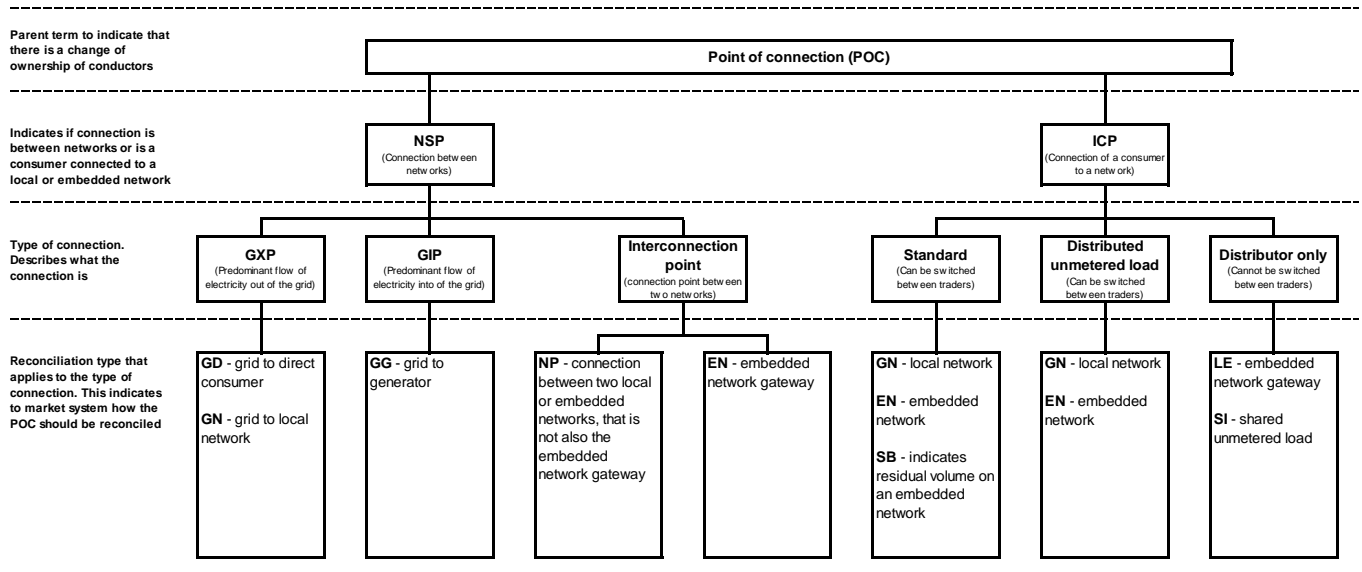
2 Types of points of connection

What is a point of connection?

- 2.1 A POC is a point where electricity flows into or out of a network to either another network or a customer's installation. Figure 1 shows the various types of POCs used in the electricity industry.
- 2.2 Different types of POCs are used to indicate the nature of a connection. There are two types of POCs: a network supply point (NSP) and an installation control point (ICP):
 - (a) NSPs are POCs that are used as reference points in the reconciliation process. These are either connections to the grid, or connections between networks.
 - (b) ICPs are POCs that are used as reference points for customer connections to local or embedded networks
- 2.3 POCs also exist where electricity supply becomes exclusively for the network owner's consumption.
- 2.4 These are further described in paragraphs 2.5 and 2.12.

¹ See Parts 1, 11, and 15 of the Code for the associated revisions that came into force on 29 August 2013.

Figure 1: Types of points of connection



What is a network supply point?

NSP definition

2.5 An NSP is:

- (a) a connection between two networks; or
- (b) the grid connection to a grid direct customer; or
- (c) a grid connected generator.

NSP identifiers

2.6 An NSP may be either a connection to the grid, or between two networks where neither is the grid. As a unique reference for a connection to the grid or between local or embedded networks, NSPs are a primary key in electricity market wholesale settlement.

2.7 There are two type of NSPs that are connections to the grid as follows:

- (a) “grid exit point” (GXP), where electricity predominantly flows out of the grid
- (b) “grid injection point” (GIP), where electricity predominantly flows into the grid.

2.8 A schedule of active and inactive NSPs is available on the Authority’s [NSP table](#).

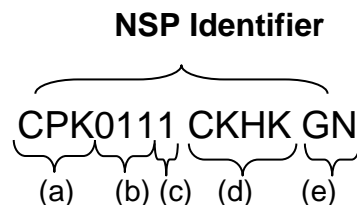
2.9 A reconciliation type is assigned to each NSP, but is not part of the NSP identifier. The reconciliation type is a reference that indicates how the NSP is treated within the reconciliation process. There are five reconciliation types that are associated with NSPs as follows:

- (a) GD—indicates a connection between the grid and a single direct connected consumer (GXP)
- (b) GG—indicates a connection between the grid and a single grid connected generator (GIP)

- (c) GN—indicates a connection between the grid and a local network with downstream consumers (GXP)
- (d) NP—indicates an interconnection point that is a connection between:
 - (i) a local network and another local network
 - (ii) a local network and an embedded network where the connection is not defined as the gateway connection; or
 - (iii) an embedded network and another embedded network where the connection is not defined as the gateway connection to either embedded network
- (e) EN—indicates an interconnection point that is the gateway connection to an embedded network.

NSP identifier form

- 2.10 Each NSP used in the reconciliation process has a unique alphanumeric identifier, as shown in the example below:



- 2.11 An NSP identifier's components are:
- (a) three character bus code (in this example, Central Park)
 - (b) three digit voltage reference (in this example, 11kV)
 - (c) one digit connection reference
 - (d) four character participant identifier for the asset owner responsible to connecting the POC (in this example, Wellington Electricity)
 - (e) two character reconciliation type reference (in this example, transmission grid to local network).

What is an installation control point?

ICP definition

- 2.12 An ICP is the point where two conductors, with different owners, connect. An ICP can be one of the following:
- (a) the connection between a customer's, or an embedded generator's, electrical installation and a local or embedded network
 - (b) the connection between a network and an embedded network
 - (c) the connection between a network and shared unmetered load
 - (d) the multiple connection between a network and distributed unmetered load (DUML).
- 2.13 Each ICP created after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP, unless the ICP identifier is for:

- (a) an ICP that is the point of connection between a network and an embedded network
 - (b) an ICP that represents the consumption calculated by the difference between the total consumption for the embedded network and all other ICPs on the embedded network.²
- 2.14 There are two different types of ICP identifier used in the registry:
- (a) **ICP trader identifiers** – these are ICP identifiers representing an ICP with a customer attached to it. Traders switch these ICP identifiers to move reconciliation responsibility from a losing trader to a gaining trader in the customer switching process.
 - (b) **Distributor only ICP identifiers** – these are ICP identifiers that contain only distributor information. These ICP identifiers do not represent an ICP with an electricity customer attached to it, they are placeholders provided for distributor system only.
- 2.15 An ICP identifier must be created in the registry by the distributor who owns or operates the network that the ICP is on no later than three business days after the connection to the network is completed.³
- 2.16 The ICP identifier is:
- (a) the point at which a trader is deemed to convey electricity:⁴
 - (i) to a consumer; or
 - (ii) from an embedded generator
 - (b) a primary key in many industry processes including metering, consumer switching, consumer invoicing, and electricity market wholesale settlement.
- 2.17 Distributors must create ICP identifiers as follows:
- (a) a local or embedded network distributor must create an ICP trader identifier in the registry for:
 - (i) each customer or embedded generator ICP connection to its network, except in the case of distributed unmetered load⁵
 - (ii) each customer for each NSP that a point of connection is directly or indirectly connected to in the case of distributed unmetered load
 - (b) a parent network distributor⁶ must create a distributor only ICP identifier for the gateway NSP of an embedded network which is connected to the parent network⁷
 - (c) an embedded network owner must create a ICP trader identifier for the gateway NSP of an embedded network where the embedded network is reconciled by difference on the embedded network⁸

² Clause 3 of Schedule 11.1.

³ Clause 8(2)(b) of Schedule 11.1.

⁴ Clause 1(2)(a) of Schedule 11.1.

⁵ Clause 1(1) of schedule 11.1.

⁶ A parent network is the network electrically closest to the grid where two networks interconnect. So for an embedded network, the parent network may be the local network that the embedded network connects to.

⁷ Clause 1(3)(a) of Schedule 11.1.

- (d) a local or embedded network owner must create a distributor only ICP identifier for shared unmetered load its network.⁹

ICP identifiers

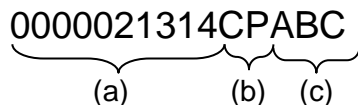
- 2.18 ICP identifiers are unique to a single ICP. They are created by the distributor on whose network the ICP is located. Once created, an ICP identifier cannot be either changed or re-used for another ICP.¹⁰
- 2.19 An ICP identifier can move through various stages termed “status”, and must be decommissioned by the distributor but only:
 - (a) for an ICP identifier for the gateway of an embedded network, when the embedded network is decommissioned¹¹
 - (b) where a customer network becomes an embedded network and either:
 - (i) the ICP trader for the gateway is decommissioned and replaced by a new distributor-only ICP; or
 - (ii) the ICP trader is converted to a distributor-only ICP
 - (c) where ICPs have been amalgamated
 - (d) in all other cases, when the connection is permanently removed from the distributor’s network.¹²
- 2.20 If a distributor’s network or participant identifier changes, the ICP identifier for each ICP transferred must not be replaced. It is instead transferred in the registry to the new distributor participant identifier.¹³
- 2.21 Each ICP identifier is recorded in the registry. Distributors, traders, and MEPs have Code obligations under Part 11 to maintain certain information in the registry.
- 2.22 Any registry user can view ICP identifier information directly in the registry. Members of the public can view a subset of ICP identifier information either:
 - (a) via a public API at [Public ICP API](#); or
 - (b) via a public web browser portal at [Public ICP portal](#).
- 2.23 Distributors must assign the reconciliation type to an ICP identifier in the registry when the ICP identifier is created. The reconciliation type is not part of the ICP identifier, it is a reference that indicates how the ICP is treated within the reconciliation process. There are five reconciliation types that are associated with ICP identifiers:
 - (a) “**EN**” indicates that the ICP identifier” is an “ICP trader identifier”, for an ICP that is a connection between an embedded network and a consumer. An ICP identifier with this reconciliation type must have a trader attached to it and may have an MEP attached to it.

⁸ Clause 3 of Schedule 15.4.
⁹ Clause 1(3)(b) of Schedule 11.1.
¹⁰ Clause 11.4(3) of Part 11.
¹¹ Clause 20 of Schedule 11.1.
¹² Clause 20 of Schedule 11.1.
¹³ Schedule 11.2 of the Code.

- (b) “**GN**” indicates that the ICP identifier is an “ICP trader identifier” and is for an ICP that is a connection between a local network and a consumer. An ICP identifier with this reconciliation type must have a trader attached to it and may have an MEP attached to it.
- (c) “**LE**” indicates that the ICP identifier is a “distributor only ICP identifier” and is for the ICP identifier that is on the parent network side of the gateway NSP of an embedded network. This type of ICP identifier is called a distributor only ICP. An ICP identifier with this reconciliation type cannot have a trader or an MEP attached to it.
- (d) “**SB**” indicates that the ICP identifier is an “ICP trader identifier” and is for the ICP identifier on the embedded network side of the gateway NSP of an embedded network. This type of ICP identifier is only used where an embedded network is reconciled using the differencing reconciliation process.¹⁴ The ICP is switchable using the ICP identifier switching process set out in Part 11, and must have a trader and can have an MEP attached to it.
- (e) “**SI**” indicates that the ICP identifier is a “distributor only ICP identifier” and is for the ICP identifier for an ICP that is for shared unmetered load. This type of ICP identifier is called a distributor only ICP. An ICP identifier with this reconciliation type cannot have a trader or an MEP attached to it.

ICP identifier form

2.24 Each ICP has a unique alphanumeric identifier, as shown in the example below:

0000021314CPABC


2.25 An ICP identifier’s components are:

- (a) ten character distributor reference number
- (b) two character code identifying the distributor that created the ICP identifier
- (c) three character checksum to prevent inaccurate ICP identifiers in the registry (and elsewhere where validation has been provided).

2.26 Business rules:

- (a) There should be no dashes, gaps, or symbols in the ICP identifier.
- (b) Leading “0”s may, but do not need to, be used in the registry for ICP identifiers.

3 Connecting and electrically connecting

3.1 The connection of two different owner’s electrical conductors (thereby establishing a POC) moves through several phases. These include:

- (a) the process of request and approval of the connection
- (b) the physical connection of the conductors (connecting)
- (c) the control of electricity flow through the conductors (electrical connection/electrical disconnection)

¹⁴ Refer to the *Reconciliation Methodology Guidelines* which are available on request from the Authority.

- (d) the process of eventually decommissioning the connection.
- 3.2 The network owner being connected to and the reconciliation participant requesting the connection have Code obligations. There are different Code requirements where the point of connection is:
- (a) any connection to the grid (grid NSP)
 - (b) a connection between two networks where neither are the grid (interconnection NSP)
 - (c) a consumer or embedded generation installation connecting to a local or embedded network (ICP).
- 3.3 Connection and electrical connection are two very different terms and are defined below.

Definition of connection

- 3.4 The term “connection” used in the Code has the common English meaning of connection. Connection means that all permanent connections of electrical conductors have been made so that the operation of a device will allow electricity to flow. Note that the term “connection” is not a defined term in Part 1 of the Code.
- 3.5 In the majority of situations, the connection of a POC means the permanent connection of conductors to an electrical installation or to a local or embedded network. The term “connection” means that electricity is available; it does not mean that electricity can flow. The term “electrical connection” means that electricity is able to flow - this is discussed in paragraph 3.14.
- 3.6 It should be noted that the termination of the mains cable at the network connection box, or at the overhead line termination point, does not normally constitute connection under the Code. For the majority of new ICPs, it is normal for the installation of the revenue meter to be the final permanent connection of conductors, so that the subsequent operation of a device will allow electricity to flow. Connection, as referenced in the Code, only takes place when the final permanent connection of conductors has been completed. Once connection has taken place, electrical connection or temporary electrical connection is able to take place by the operation of a device that allows electricity to flow.
- 3.7 As the location of the isolating device for an electrical installation may be internal to the electrical installation, conductors up to the isolation device may have voltage present. **As a rule, both connected service lines and conductors on both sides of an isolation device should be treated as live at all times.**
- 3.8 Once connected, a POC can be electrically connected, temporarily electrically connected, or electrically disconnected. Regardless of the electrical connection status, the POC remains connected. Note that disconnecting the service line¹⁵ from an electrical installation, for the purpose of electrical disconnection, is not considered to decommission the electrical installation.

Definition of disconnection

- 3.9 The term “disconnection” used in the Code has the common English meaning of disconnection. Disconnection means that one or more connections of electrical conductors have been removed so that regardless of the operation of a device,

¹⁵ A “service line” is the section of conductors that connect the point of supply and the customer’s meter board.

electricity will not flow into an electrical installation. Note that the term “disconnection” is not a defined term in Part 1 of the Code.

- 3.10 As the location of the isolating device for an electrical installation may be internal to the electrical installation, conductors up to the point of disconnection may have voltage present. **As a rule, both disconnected service lines and conductors on both sides of an isolation device should be treated as live at all times.**
- 3.11 Note that disconnecting the service line from an electrical installation, for the purpose of electrical disconnection, is not considered to decommission the electrical connection.

Definition of decommissioning

- 3.12 The term “decommissioned” is defined in Part 1 of the Code. It means permanent removal of an electrical installation associated with the POC, which could include:
- (a) cutting away or removal of service lines
 - (b) removal of network fittings or components in the electrical supply line
 - (c) where ICP identifiers are no longer required such as when:
 - (i) the ICP trader for the gateway of an embedded network is decommissioned
 - (ii) ICPs have been amalgamated.
- 3.13 If an ICP has been decommissioned, the following must be completed before it can be reconnected to a network:
- (a) if the decommissioning was recorded in the registry in error, the decommissioning event must be reversed by the distributor that populated the decommissioning event. This reversal sets the ICP identifier back to the “Inactive – ready for decommissioning status”. Such a reversal impacts both the trader and MEP recorded in the registry as responsible for the ICP identifier. Both of these participants will receive an overnight notification from the registry of the reversal. Unless the trader and MEP have been advised of the reversal by the distributor, they will not be expecting and may not notice the notification. Reversing a decommissioning event should be carried out in active cooperation with both the trader and MEP responsible in the registry for the ICP.
 - (b) if the POC was decommissioned and a new POC is to be established:
 - (i) the process should follow the POC’s process set out in the Code¹⁶
 - (ii) a new NSP identifier or ICP identifier should be assigned as the previous identifier status should have been “decommissioned” and may not be changed for a new POC.¹⁷

Definition of electrical connection

- 3.14 Part 1 of the Code includes a definition of electrical connection as:

electrically connect means to operate a device so that **electricity** is able to flow, including through a **point of connection**, and **electrically connected, electrically connecting, electrical connection**, and similar phrases have corresponding meanings.

¹⁶ Clauses 10.29 to 10.33A.

¹⁷ Clause 11.4(3) of Part 11.

- 3.15 In order to electrically connect a POC, it must first be connected. Electrical connection means allowing electricity to flow through a POC by the operation of a device such as a switch or circuit breaker, or installing a fuse or link, etc. The Electricity (Safety) Regulations 2010 requires that regardless of how an electrical connection is carried out, the electrical installation must be left in a safe condition.
- 3.16 As the location of the isolating device that is used to electrically connect a customer's electrical installation may be internal to the customer electrical installation, conductors up to the isolating device may have voltage present. **As a rule, both service lines and conductors on both sides of an isolation device must be treated as live at all times.**

Definition of electrical disconnection

- 3.17 Electrical disconnection has the converse meaning of electrical connection.
- 3.18 In rare circumstances, electrical disconnection may include temporary disconnection of an ICP where there is no other means of isolation apart from removing conductors from a meter to prevent electricity from flowing into an electrical installation. The Electricity (Safety) Regulations 2010 requires that regardless of how an electrical disconnection is carried out, the electrical installation must be left in a safe condition.
- 3.19 If an electrical installation is electrically disconnected by breaking seals and removing conductors from a metering installation, the participant that broke the seals, and the MEP, must follow the Code process for dealing with broken seals.¹⁸ The participant that broke the seals must:
- (a) advise the MEP responsible for the ICP and the reason for the breakage within 10 business days
 - (b) reimburse the MEP for the cost of reinstating the seals within 10 business days of being advised the cost by the MEP.

4 Isolation for electrical connection/electrical disconnection of a POC

Electrical connection/electrical disconnection of a grid POC

- 4.1 Only a grid owner may connect a POC to the grid.¹⁹
- 4.2 For a grid POC, the grid owner is responsible for the isolation device that electrically connects and electrically disconnects a grid POC.
- 4.3 A grid connected customer or network may have its own isolation devices within its electrical installation, the grid owner may also have its own isolation device at the POC. Any queries on the operation of a grid POC isolation device should be made directly to the grid owner.

Electrical connection/electrical disconnection of a network interconnection POC

- 4.4 For a network interconnection POC, the network owner that initiates or requires the interconnection is responsible for the isolation device that electrically connects and

¹⁸ Clause 48 of Schedule 10.7.

¹⁹ Clauses 10.29 and 10.29A.

electrically disconnects the POC. Any queries on the operation of a network interconnection POC isolation device should be made directly to the network owners each side of the interconnection point.²⁰

- 4.5 Where an embedded network is transitioning to a network extension, there is no physical disconnection or decommission of the POC. Only the metering point is disestablished.

Electrical connection/electrical disconnection of an ICP

- 4.6 A distributor is responsible for the connection of installations to its network and should be aware of where ICPs are being connected on its network,
- 4.7 Distributors may delegate the function of connection and electrical connection to suitably qualified, authorised agents. Distributors are responsible for ensuring their agents carry out activities in a manner that ensures obligations associated with connection and electrical connection under the Code are met.
- 4.8 Distributors should note the Code specifically requires an ICP for a consumer or generator POC that is created after 7 October 2002 to be able to be electrically disconnected without electrically disconnecting any other ICP.²¹
- 4.9 In some cases new streetlights are appended to DUMML databases when a network extension (eg, subdivision) may be electrically connected by a distributor before:
- (a) a council has the roads vested into their ownership
 - (b) any ICPs have been created for the network extension.
- 4.10 For ICPs, the trader responsible for an ICP in the registry should indicate if the ICP is electrically connected/electrically disconnected.²² The registry defines these states as “active” for “electrically connected”, and “inactive” for “electrically disconnected” and defines these as the status of the ICP.²³
- 4.11 The actual status must be recorded in the registry by the trader.²⁴ If the status is not correctly recorded in the registry, the losing trader in an ICP trader switch process can provide information to the gaining trader:
- (a) a losing trader can indicate to a gaining trader that an ICPs actual status is different to the registry displayed status by returning an AN file in response to an NT switch request, using a response code of “PD” (premise disconnected). This indicates to the gaining trader that the customer’s electrical installation is electrically disconnected despite the registry indicating otherwise.
 - (b) when a trader updates an ICP in the registry with a status of “inactive”, the trader must also provide a status reason code. The status reason code indicates to the distributor and other traders where and how the electrical installation at an ICP has been electrically disconnected. The correct use of status reason codes can reduce the amount of field work required by gaining traders in the switch process and is an efficiency measure.²⁵

²⁰ Clauses 10.30 and 10.30A.

²¹ Clause 3 of Schedule 11.1.

²² Clause 10.33(1).

²³ Clauses 17 and 19 of Schedule 11.1.

²⁴ Clause 9(1)(j) of Schedule 11.1.

²⁵ Refer to section 1.4.13 of the registry functional specification.

5 Code obligations for new POCs

- 5.1 The Code sets out a process and places obligations on certain participants for connecting a new POC as follows. These are discussed in more detail in the following sections:
- (a) Connecting and electrically connecting a grid NSP²⁶
 - (b) Connecting and electrically connecting an interconnection NSP²⁷
 - (c) Connecting and electrically connecting an ICP that is not also an NSP.²⁸
- 5.2 The Code does not specify the operational work flow of the connection process for each participant, but instead states the required outcomes.
- 5.3 The Authority expects that participants will design their processes and workflows to meet the requirements of the Code and reach agreement on the most efficient processes to achieve connection and electrical connection of POCs. Among the steps that might be taken to improve efficiency are:
- (a) the use of 'blanket' agreements between parties that set out the circumstances in which an authorisation is automatically given
 - (b) standardised connection agreements
 - (c) standardised meter boxes
 - (d) standardised arrangements for authorising agents to connect POCs.

Connecting and electrically connecting a grid NSP

Agreements to connect to the grid

- 5.4 Only a grid owner may connect a POC to the grid.²⁹
- 5.5 A person who connects to the grid is a customer of the grid owner. A person proposing a connection to the grid may be another grid owner, a local network owner, a grid direct customer, or a grid connected generator.
- 5.6 The Code requires the grid owner and parties that want to connect to the grid to enter into a transmission agreement before an electrical connection is made.³⁰ This agreement can be negotiated between the parties or, if the parties cannot come to agreement, the Authority's default benchmark agreement used.
- 5.7 The Authority determines the benchmark agreement, which is available on the web page at [Documents incorporated into the Code by reference](#). The benchmark agreement sets out the Authority's expectation for an agreement between the grid owner and any connecting asset owner.
- 5.8 Any transmission agreement should include as a minimum:
- (a) technical obligations
 - (b) information provision obligations

²⁶ Clause 10.29.

²⁷ Clause 10.30.

²⁸ Clause 10.31.

²⁹ Clause 10.29.

³⁰ Clause 12.8.

- (c) payment obligations
 - (d) service definitions, service levels, and service measures.
- 5.9 If the default benchmark agreement applies, it can be superseded at a later time by a subsequent transmission agreement.³¹
- 5.10 A transmission agreement may be amended by agreement between the parties. Any dispute to an amendment is determined by the Rulings Panel.
- 5.11 The grid owner is required to publish information about transmission agreements and provide them to any person that requests it. The grid owner may refuse to provide an agreement if there are grounds to withhold the information under the Official Information Act 1982.
- 5.12 Further information is available at [Transmission Agreements](#).

New connection process for a grid NSP

- 5.13 The grid owner may only connect a new POC if it has:
- (a) notified the reconciliation manager of a change to the grid³²
 - (b) ensured that for each GXP there is a certified metering installation and followed the process set out in the Code³³
 - (c) advised the Authority in writing of its intention to connect the GXP at least one month before connecting a GXP to the grid for the first time³⁴
 - (d) obtained authorisation from the Authority for the connection³⁵
 - (e) given the reconciliation manager notification of the creation (or decommissioning) of a GXP or GIP.³⁶
- 5.14 Grid owners may (but are not obligated to) connect a POC to the grid after it has agreement with:
- (a) the connecting asset owner, which will be a local network, a grid direct customer, or a grid connected generator
 - (b) an MEP for temporary electrical connection of a grid POC for metering installation certification purposes.³⁷
- 5.15 Within five business days of connecting a grid POC, the grid owner must advise the reconciliation manager of the POC that has been connected and the date of the connection.³⁸
- 5.16 In addition to the creation of the NSP, and in the case only of a local network grid NSP, the following applies:

³¹ Clause 12.11.

³² Clause 15.14.

³³ Clause 10.26.

³⁴ Clause 13.27J.

³⁵ Clause 10.29(1).

³⁶ Clauses 25 and 26 of Schedule 11.1.

³⁷ Clauses 10.29A.

³⁸ Clause 10.29(2).

- (a) a trader may decide if the network is to be reconciled using the global reconciliation methodology or by the difference reconciliation methodology.³⁹
- (b) If the local network owner:
 - (i) DOES NOT make application and DOES NOT receive consent from the Authority to use differencing reconciliation, the local network will be reconciled using the global reconciliation methodology.⁴⁰
 - (ii) DOES make application and DOES receive consent from the Authority to use differencing reconciliation, the local network will be reconciled using the differencing reconciliation methodology.⁴¹
 - (iii) DOES make application and DOES NOT receive consent from the Authority to use differencing reconciliation, the local network will be reconciled using the global reconciliation methodology.

Obtaining a grid NSP identifier

- 5.17 The grid owner, if it intends to create (or decommission) a grid POC, must give the reconciliation manager written notice of the creation (or decommissioning).⁴² This written notice can be carried out on the reconciliation manager's portal online. For details, contact the reconciliation manager directly.
- 5.18 The grid owner must request the reconciliation manager to create an NSP identifier.⁴³ The reconciliation manager will also assign a reconciliation type to the NSP.

Decommissioning a grid NSP

- 5.19 There are two processes in decommissioning a grid NSP:
- (a) disconnect the assets at the grid POC
 - (b) decommission the grid NSP identifier.

Disconnect the assets at the grid POC

- 5.20 The process to decommission a grid NSP should follow the grid owner's process.

Decommission the NSP identifier at the grid POC

- 5.21 A grid NSP identifier must not be decommissioned:
- (a) until the grid POC has been decommissioned, and there is no possibility that electricity can flow; or
 - (b) if electricity continues to flow but the volume is reconciled to a different GXP.
- 5.22 A grid NSP that is electrically disconnected must not have its NSP identifier decommissioned. If the NSP is electrically connected, NSP submission information will be required, but the reconciliation managers system will not be configured to accept submission information for a decommissioned NSP identifier.
- 5.23 The grid owner must give written notice to the reconciliation manager of the decommissioning of an NSP identifier.⁴⁴

³⁹ Clause 4 of schedule 15.4.

⁴⁰ Refer to the "Global reconciliation guidelines".

⁴¹ Refer to the "Global reconciliation guidelines".

⁴² Clause 25 of Schedule 11.1.

⁴³ Clause 26 of Schedule 11.1.

Provision of metering at a grid NSP

- 5.24 In the case of a:
- (a) GXP, the grid owner must ensure that there are one or more metering installations for a GXP.⁴⁵
 - (b) GIP, the connecting asset owner must ensure that there are one or more metering installations for a GIP.⁴⁶
- 5.25 The Code sets out who the participant is that is responsible for providing the metering at a grid POC. If agreement cannot be reached within 60 business days between the grid owner and other participants over who should provide the metering, the Authority may decide who is responsible,⁴⁷ which may be either:
- (a) the grid owner where the POC is likely to be a GXP; or
 - (b) the participant connecting the assets to the grid at the POC if the POC is likely to be a GIP.⁴⁸
- 5.26 The grid owner must, before electrically connecting a new grid POC:
- (a) use its best endeavours to agree with the participant who proposes to connect to the grid as to who will provide the metering installation for the POC⁴⁹
 - (b) if a participant other than the grid owner provides the metering installation, review and comment on the metering installation design within 3 months of being provided the design⁵⁰
 - (c) if the design requires subtraction, loss compensation, or error compensation, provide all relevant details to the Authority 20 business days before the proposed date for installing the metering installation.
 - (d) ensure that all reasonable changes requested by the market administrator are carried out.⁵¹
- 5.27 A participant other than the grid owner who provides a metering installation at a new grid POC must, before electrically connecting the metering installation provide:
- (a) a copy of the metering installation design report to the grid owner
 - (b) the grid owner with at least three months to review and comment on the metering installation design.

⁴⁴ Clause 25(1)(b) of Schedule 11.1 and clause 4 of Schedule 15.4.

⁴⁵ Clause 10.26(1).

⁴⁶ Clause 10.26(2).

⁴⁷ Clause 10.26(4) and (5).

⁴⁸ Clauses 10.26(4) and (5).

⁴⁹ Clause 10.26(3).

⁵⁰ Clause 10.26(6).

⁵¹ Clause 10.26(9).

- 5.28 When the metering at a point of connection to the grid is certified or recertified, the participant responsible for providing the metering (usually the grid owner for a GXP, and the connecting asset owner for a GIP) must advise the reconciliation manager of:
- (a) the NSP connected and the date of the connection within five business days of the connection being made⁵²
 - (b) the participant identifier of the MEP for the metering installation within 20 business days after certification of a metering installation⁵³
 - (c) the metering installation certification expiry date within 10 business days after certification or recertification of a metering installation, using the prescribed form.⁵⁴

Electrically connecting a grid NSP

- 5.29 No grid NSP should be electrically connected if:⁵⁵
- (a) the distributor has disconnected the grid NSP for safety reasons, and has not subsequently approved the electrical connection
 - (b) electrically connecting the grid NSP would breach the Electricity (Safety) Regulations 2010
 - (c) the reconciliation participant responsible for the grid POC has not authorised the electrical connection. Note that in the case of grid POCs, the reconciliation participant responsible is as follows:
 - (i) the grid owner for GN reconciliation type
 - (ii) the grid owner for GD reconciliation type
 - (iii) the grid-connected generator for GG reconciliation types.
- 5.30 A grid NSP that is connected may have voltage present because the point of electrical connection or electrical disconnection may be:
- (a) downstream of the grid NSP
 - (b) subject to backfeeds or islanded generation.

- 5.31 **As a rule, all connected conductors on both sides of an isolation device must be treated as live at all times.**

Temporary electrical connection of a grid NSP

- 5.32 Temporary electrical connection means the electrical connection of a grid NSP for:
- (a) the activities or processes necessary for, or as part of, the certification of a metering installation
 - (b) the maintenance, repair, testing, or commissioning of a metering installation.
- 5.33 The grid owner may electrically connect a grid NSP if an MEP that has an arrangement with the reconciliation participant at the grid NSP has requested temporary electrical connection.⁵⁶

⁵² Clause 10.29(2).

⁵³ Clause 10.26(7).

⁵⁴ Clause 10.26(7).

⁵⁵ Clause 10.33A.

⁵⁶ Clause 10.29A.

- 5.34 The grid NSP can remain electrically connected after the metering installation has been certified provided that the grid owner and the connecting asset owner and the reconciliation participant responsible for the grid NSP agree.
- 5.35 If a metering installation fails certification the MEP should notify the grid owner in the case of a GXP and the generator in the case of a GIP.

Provision of submission information to the reconciliation manager for a grid NSP

- 5.36 The Code requires submission information to be provided to the reconciliation manager for every grid NSP by either:
- (a) the grid owner, for GXPs⁵⁷
 - (b) the generator that is connected to the grid at the grid NSP, for GIPs.⁵⁸
- 5.37 The grid owner or generator is a reconciliation participant⁵⁹ and the reconciliation participant must be certified in accordance with the Code.⁶⁰
- 5.38 The Code sets out the time frames for which initial and revision submission information must be provided to the reconciliation manager.⁶¹ Note that where errors or inaccuracies are found in submission information, the Code requires that the participant must correct the information as soon as practicable by either:⁶²
- (a) providing revised submission files,⁶³ or
 - (b) alleging a volume dispute.⁶⁴
- 5.39 The reconciliation manager functional specification sets out the format that NSP information must be provided in, and the method in which the submission file is transferred to the reconciliation manager. The reconciliation manager functional specification is available at [Reconciliation Manager web page](#).

Connecting and electrically connecting an interconnection NSP

Agreements to connect a distribution network to another distribution network

- 5.40 An interconnection point:
- (a) can only exist between two separate entities that own distribution networks. An interconnection point can only exist between two networks and not between a network owner and another entity in the same network.⁶⁵
 - (b) cannot exist between a single consumer and a distribution network, this must be an ICP.

⁵⁷ Clause 15.9.

⁵⁸ Clause 15.10.

⁵⁹ Refer to definition of “reconciliation participant” in Part 1 of the Code.

⁶⁰ Clause 15.38.

⁶¹ Clauses 15.9 and 15.10.

⁶² Clause 15.2.

⁶³ Clause 15.4(2).

⁶⁴ Clause 15.29.

⁶⁵ Refer to the definition of “interconnection point” in Part 1.

- (c) can be an NSP between:
 - (i) two local networks and has the reconciliation type of NP
 - (ii) an embedded network and any other embedded network or local network where the NSP IS the primary point of connection and has the reconciliation type of EN (this is referred to as the “gateway NSP”)
 - (iii) an embedded network and any other embedded network or local network where the NSP IS NOT the primary point of connection and has the reconciliation type of NP.⁶⁶
- 5.41 Only the distributor that initiates the NSP creation process set out in the Code may connect to another distribution network.⁶⁷ This may involve an agreement between the two distribution network owners, and this agreement is not regulated in the Code.
- New connection process for an interconnection NSP**
- 5.42 Distribution networks below the level of the grid may be electrically interconnected for various reasons, eg, emergency backfeeds or capacity issues. The electrical connection between these networks is termed an interconnection point and, by definition, it is an NSP.
- 5.43 There are two types of interconnection NSPs, these are electrical connections between two distribution networks that either:
- (a) form an embedded network gateway; or
 - (b) are not an embedded network gateway, but are connections between local networks, embedded networks, or connections between local and embedded networks.
- 5.44 The Code obligations relating to each of these interconnection point types are the same.
- 5.45 Usually one distributor will request the interconnection and this distributor is the “initiating distributor”. The Code obligations around establishment of the interconnection point, metering, data submission to the reconciliation manager, etc, fall on the initiating distributor.
- 5.46 The Code does not require a distributor to agree to the request from another distributor for an interconnection NSP,⁶⁸ a distributor can decline a request. An interconnection NSP must only be connected where the distributors each side of the interconnection NSP agree to the connection.
- 5.47 If both distributors agree to create an interconnection NSP between their networks, the interconnection NSP can only be connected if requested by:
- (a) the reconciliation participant responsible for ensuring there is a metering installation for the POC⁶⁹ (in all cases this will be the initiating network owner)
 - (b) the MEP responsible for the metering installation/s for temporary electrical connection to allow testing of the metering installation/s.⁷⁰

⁶⁶ Note that there can be only the one EN NSP connection for an embedded network. Where there are other NSPs that connect to another distribution network, the NSP must be an NP NSP.

⁶⁷ Clause 10.30.

⁶⁸ Clauses 10.30(1A) and (1B).

⁶⁹ Clauses 10.30(1).

- 5.48 A distribution network owner may only connect a new interconnection NSP if it has:
- (a) agreed with the other distribution network owner that the connection may be made⁷¹
 - (b) obtained an NSP identifier from the reconciliation manager⁷²
 - (c) notified the reconciliation manager of the creation of the interconnection NSP.⁷³ The reconciliation manager will decide the NSP identifier for the interconnection NSP that must be used in all electricity market transactions.⁷⁴
 - (d) subsequent to the electrical connection, and within five business days of the electrical connection of an interconnection NSP, the distributor carrying out the connection must advise the reconciliation manager of:
 - (i) the NSP identifier that has been connected
 - (ii) the date of the connection
 - (iii) the participant identifier of the MEP responsible for the metering installations
 - (iv) the certification expiry date of the metering installations at the NSP.⁷⁵
- 5.49 In addition to the creation of the NSP, and in the case only of an embedded network gateway interconnection NSP, the following applies:
- (a) the parent network of an embedded network must create an ICP identifier on its network.⁷⁶ This is a distributor only ICP identifier and it must have the reconciliation type of LE⁷⁷ populated in the registry.⁷⁸ This ICP is not switchable, and cannot contain registry metering records. It may however contain a loss category code and a price category code relevant to the POC.
 - (b) the embedded network owner must decide if the network is to be reconciled by difference.⁷⁹ If the embedded network owner:
 - (i) does not advise otherwise to the reconciliation manager, the embedded network will be reconciled using the global reconciliation methodology.⁸⁰
 - (ii) advises the reconciliation manager that the embedded network is to be reconciled using the differencing methodology,⁸¹ it must create an ICP identifier to represent the differencing volumes and it must have the reconciliation type of SB⁸² populated in the registry.⁸³ The trader recorded in

⁷⁰ Clauses 10.30A(1).

⁷¹ Clauses 10.30(1A) and (1B).

⁷² Clause 25 of Schedule 11.1.

⁷³ Clause 25(3)(b) to(d) of Schedule 11.1.

⁷⁴ Clause 25 of Schedule 11.1.

⁷⁵ Clause 10.30(2).

⁷⁶ Clause 1(3)(a) of Schedule 11.1.

⁷⁷ An LE ICP cannot have a metering installation or trader attached to it.

⁷⁸ Refer to definition of reconciliation type in para 1.4.5 of the registry functional specification available at [Registry Functional Specification](#).

⁷⁹ Clause 3 of schedule 15.4.

⁸⁰ Refer to the *Reconciliation methodology guidelines*.

⁸¹ Refer to the *Reconciliation methodology*.

⁸² An SB ICP may have a metering installation and must have a trader attached to it prior to electrical connection of the interconnection POC.

the registry as responsible for the SB ICP identifier will receive the differenced volume of electricity calculated in the reconciliation process in its invoices from the clearing manager.

Obtaining an interconnection point NSP identifier

- 5.50 If a distribution network owner/operator that intends to create (or decommission) an interconnection NSP must give the reconciliation manager written notice of the creation (or decommissioning).⁸⁴ This written notice can be carried out on the reconciliation manager's portal online. For details contact the [reconciliation manager](#) directly.
- 5.51 The distribution network owner/operator must request the reconciliation manager to create an NSP identifier.⁸⁵ The reconciliation manager will also assign a reconciliation type to the NSP as follows:
- (a) EN for the gateway to an embedded network⁸⁶
 - (b) NP for any other connection between distribution networks that is not the gateway to an embedded network.
- 5.52 Note that the use of an NP interconnection point between an embedded network and another distribution network allows the NP NSP to either (or both) be electrically connected to another GXP or to have a different loss factor to the EN NSP.

Decommissioning an interconnection NSP

- 5.53 There are two processes in decommissioning an interconnection point NSP. Which process is followed, depends whether the interconnection point is an:
- (a) interconnection NSP with a reconciliation type of NP; or
 - (b) interconnection NSP with a reconciliation type of EN.

Interconnection NSPs with a reconciliation type of NP

- 5.54 There are two steps that must be followed to decommission an interconnection point with a reconciliation type of NP:
- (a) disconnect the assets between the two networks
 - (b) decommission the interconnection NSP identifier.

Decommission the NSP identifier at the interconnection POC

- 5.55 An interconnection NSP identifier must not be decommissioned until the interconnection between the two networks has been decommissioned, and there is no possibility that electricity can flow.
- 5.56 An interconnection NSP that is electrically disconnected must not have its NSP identifier decommissioned. If the NSP is electrically connected, NSP submission information will be required, but the reconciliation managers system will not be configured to accept submission information for a decommissioned NSP identifier.

⁸³ Refer to definition of reconciliation type in para 1.4.5 of the registry functional specification.

⁸⁴ Clause 25 of Schedule 11.1.

⁸⁵ Clause 26 of Schedule 11.1.

⁸⁶ Note that there can be only the one EN NSP connection for an embedded network. Where there are other NSPs that connect to another distribution network, the NSP must be an NP NSP.

- 5.57 The network owner that owns the network on which the NSP exists must give written notice to the reconciliation manager of the decommissioning of the NSP identifier.⁸⁷

Interconnection NSPs with a reconciliation type of EN

- 5.58 There are two steps that must be followed to decommission an interconnection point with a reconciliation type of EN:

- (a) disconnect the assets between the two networks
- (b) decommission the embedded network NSP identifier.

- 5.59 An interconnection NSP identifier must not be decommissioned:

- (a) until the interconnection NSP has been decommissioned, and there is no possibility that electricity can flow; or
- (b) if electricity continues to flow but the volume is reconciled to a different GXP.

Decommission the NSP identifier at the embedded network POC

- 5.60 An embedded network gateway NSP identifier must not be decommissioned until:

- (a) the interconnection between the two networks has been decommissioned, and there is no possibility that electricity can flow; or
- (b) all ICP identifiers within the embedded network have been transferred to the parent network; or
- (c) the embedded network gateway NSP has been replaced with an ICP identifier with a trader attached to it.

- 5.61 An embedded network NSP that is electrically disconnected must not have its NSP identifier decommissioned. If the NSP is electrically connected, NSP submission information will be required, but the reconciliation manager's system will not be configured to accept submission information for a decommissioned NSP identifier.

- 5.62 The network owner that owns the network on which the NSP exists must give written notice to the reconciliation manager of the decommissioning of the NSP identifier.⁸⁸

Provision of metering at an interconnection NSP

- 5.63 The distributor that proposes an interconnection point is responsible for either assuming the responsibility for being the MEP for the NSP, or must contract an MEP to provide the metering installation/s at an interconnection NSP.⁸⁹

- 5.64 Note that under certain circumstances an exemption may be approved by the Authority to allow an interconnection NSP without a metering installation.⁹⁰ The circumstances for an exemption may include:

- (a) the NSP is rarely used, perhaps only for emergency back feeds

⁸⁷ Clause 25(1)(b) of Schedule 11.1.

⁸⁸ Clause 25(1)(b) of Schedule 11.1.

⁸⁹ Clause 10.25(2).

⁹⁰ The process for applying for an exemption is set out on the Authority's website at <https://www.ea.govt.nz/code-and-compliance/the-code/exemptions-to-the-code/how-to-apply-for-an-exemption/>

- (b) the NSP is established after an event to supply electricity to consumers, but only for a very short period of time while network repairs are carried out. Examples may include storm or disaster damage to a network.

5.65 Within 20 business days of:

- (a) assuming responsibility or obtaining a contract, the distribution network owner/operator must advise the reconciliation manager of the following:⁹¹
 - (i) the reconciliation participant identifier for reconciliation participant responsible for submission information for the NSP
 - (ii) the participant identifier of the MEP responsible for the metering installation.
- (b) the certification of each metering installation at an interconnection NSP, the distribution network owner/operator must advise the reconciliation manager of the certification expiry date.⁹²
- (c) an MEP recertifying an interconnection NSP, the distribution network owner/operator must advise the reconciliation manager of the:⁹³
 - (i) reconciliation participant for the NSP
 - (ii) participant identifier of the MEP for the metering installation
 - (iii) certification expiry date for the metering installation.

Electrically connecting an interconnection NSP

5.66 An interconnection NSP can be electrically connected only if:⁹⁴

- (a) a distributor has not disconnected the interconnection NSP for safety reasons, and has subsequently approved the electrical connection
- (b) electrically connecting the interconnection NSP would not breach the Electricity (Safety) Regulations 2010
- (c) the reconciliation participant responsible for the interconnection NSP has authorised the electrical connection
- (d) in the case of an embedded network to be reconciled by differencing, the SB ICP identifier has been switched by a trader in the registry.

5.67 Note that if an interconnection point is electrically connected without following the Code process, there may be undetected inaccuracies in reconciliation. Consequently, there may be inaccuracies in traders' purchases from the clearing manager and consumer invoices.

5.68 An interconnection NSP that is electrically connected may have voltage present as the point of electrical connection or electrical disconnection may be downstream of the interconnection POC and may be subject to backfeeds or islanded generation. **As a rule, all connected conductors on either side of the isolation device must be treated as live at all times.**

⁹¹ Clause 10.30(2).

⁹² Clause 10.25(2).

⁹³ Clause 10.25(3).

⁹⁴ Clauses 10.33A(3) and (4).

Temporary electrical connection of an interconnection NSP

- 5.69 Temporary electrical connection means the electrical connection of an interconnection NSP for:
- (a) the activities or processes necessary for, or as part of, the certification of a metering installation; or
 - (b) the maintenance, repair, testing, or commissioning of a metering installation.
- 5.70 The relevant distributor may electrically connect an interconnection NSP if an MEP that has an arrangement with the reconciliation participant at the interconnection NSP has requested temporary electrical connection.⁹⁵
- 5.71 The interconnection NSP can remain electrically connected after the metering installation has been certified provided that the distributors each side of the interconnection NSP and the reconciliation participant responsible for the interconnection NSP agree.
- 5.72 If a metering installation fails certification, the MEP should notify the relevant distributors.

Provision of submission information to the reconciliation manager for an interconnection NSP

- 5.73 The Code requires submission information to be provided to the reconciliation manager for every interconnection NSP.⁹⁶
- 5.74 The distributor that proposes an interconnection point is responsible for the provision of submission information to the reconciliation manager, and must either:
- (a) be certified by the Authority as a reconciliation participant⁹⁷ to do so; or
 - (b) contract another certified reconciliation participant to act as the distributor's agent.⁹⁸
- 5.75 For NSPs with the reconciliation type of EN it is the embedded network owner who must submit the information to the reconciliation manager. For NSPs with the reconciliation type of NP, it is the network owner that initiated the interconnection who must submit the information to the reconciliation manager.
- 5.76 The Code sets out the time frames for which initial and revision submission information must be provided to the reconciliation manager.⁹⁹ Note that where errors or inaccuracies are found in submission information, the Code requires that the participant must correct the information as soon as practicable.¹⁰⁰
- 5.77 The [reconciliation manager functional specification](#) sets out the format that NSP information must be provided in, and the method in which the submission file is transferred to the reconciliation manager.

⁹⁵ Clause 10.30A.

⁹⁶ Clause 15.10.

⁹⁷ Refer to definition of a reconciliation participant in Part 1 of the Code

⁹⁸ Clause 15.38

⁹⁹ Clauses 15.10.

¹⁰⁰ Clause 15.2.

Connecting and electrically connecting an ICP that is not also an NSP

Agreements to connect an ICP

- 5.78 Only a distributor may connect an ICP to its own network.¹⁰¹ Distributors may approve agents to carry out connections to its network, but remain responsible for the agent's compliance with the Code.¹⁰²
- 5.79 A distributor:
- (a) may respond to queries for a new ICP connection to its network from a new customer, the customer's agent, or a trader, but must not connect an ICP (that is not also an NSP) to its network unless a trader that intends to trade the ICP has requested the connection.¹⁰³
 - (b) is not authorised to electrically connect an ICP to its network. The decision to connect an ICP is outside of the Code. The Code regulates the connection and electrical connection process if a distributor decides to allow a connection to its network.

New connection process for an ICP

- 5.80 Distributors must ensure that where ICPs are being created on its network, particularly where a service line may have more than one ICP connected to it, that each ICP can be individually electrically disconnected. The Code specifically requires an ICP for a consumer or generator POC that is created after 7 October 2002 to be able to be electrically disconnected without electrically disconnecting any other ICP.¹⁰⁴
- 5.81 Undoing permanent wiring to effect an electrical disconnection should be considered as a last and emergency resort only, particularly if this involves breaking seals on a certified metering installation.
- 5.82 A distributor must only connect an ICP to its network¹⁰⁵ if the connection is requested by:
- (a) the trader that intends to trade the ICP identifier at the ICP, (note that only the trader that accepts responsibility for trading at the ICP can request that a distributor electrically connect an ICP);¹⁰⁶ or
 - (b) an MEP who has an arrangement with the trader in paragraph (a) above.¹⁰⁷
- 5.83 As the distributor must receive the request for the connection of an ICP from a trader, the distributor knows the trader that intends to trade at the ICP and must populate that trader's participant identifier in the registry.¹⁰⁸ This must be carried out within three business days of the connection to the network occurring. Populating this field in the registry enables the registry to send a notification to the proposed trader when the status

¹⁰¹ Clause 10.31(1).

¹⁰² Termed "warranted person" in use of systems agreements.

¹⁰³ Clause 10.31(2).

¹⁰⁴ Clause 3 of Schedule 11.1.

¹⁰⁵ Clause 10.31(2).

¹⁰⁶ Clause 10.32(a).

¹⁰⁷ Clause 10.31A.

¹⁰⁸ Clause 7(j) of Schedule 11.1.

of the ICP identifier moves from “New” to “Ready”. The trader can then initially assign the ICP identifier to itself.

- 5.84 Note that in a number of cases the trader that requested the ICP may not be the trader that actually initially assigns the ICP identifier in the registry. This does not impact market processes.
- 5.85 For clarity, a distributor must **NOT** electrically connect an ICP on its network with the Reconciliation type of GN or EN unless a trader has authorised the electrical connection.¹⁰⁹

Updating ICP identifiers in the registry

- 5.86 A distributor must create ICP identifiers in the registry for each ICP on its network.¹¹⁰ There may be multiple ICPs that are deemed to be a single electrical installation to which the distributor assigns a single ICP identifier.¹¹¹ The ICP identifier represents the point at which a trader is deemed to convey electricity to a customer or embedded generator.
- 5.87 Ideally, the request for a distributor to create an ICP and an ICP identifier should not be backdated. However, it is more important for the records in the registry to be date accurate.
- 5.88 Each distributor has an enduring obligation to:
- (a) populate any relevant attributes information in the registry¹¹²
 - (b) update any relevant changes to the ICP attributes within the Code prescribed time periods.¹¹³
- 5.89 As other participants are dependent on distributors creating and populating ICP identifiers for their compliance and activities, there are maximum time periods specified in the Code for a distributor to carry out its obligations. Distributors should not treat these maximum time periods as a target, but perform these obligations as soon as possible. The distributors enduring obligation for an ICP ceases only once an ICP is decommissioned.
- 5.90 There may be a financial consequence to either the trader or the customers where a distributor for an ICP:
- (a) electrically connects an ICP without being requested to do so by a trader that is taking responsibility for the ICP identifier
 - (b) fails to create an ICP identifier in the registry for a POC
 - (c) populates incorrect ICP attributes in the registry
 - (d) series connects a new ICP to an existing ICP.
- 5.91 If an ICP is electrically connected, without a responsible trader:
- (a) the distributor has breached the Code¹¹⁴

¹⁰⁹ Clause 10.33A(4).

¹¹⁰ Clause 11.4, and clauses 1 and 7 of Schedule 11.1.

¹¹¹ Clause 1(2)(a) of Schedule 11.1.

¹¹² Clauses 11.7 and 7 of Schedule 11.1.

¹¹³ Clauses 8, 21, 22, 23 of Schedule 11.1.

¹¹⁴ Clause 10.31.

- (b) it may prevent a trader from meeting its Code obligations in respect of populating the registry, causing a consequential Code breach for the trader
- (c) there may be no electricity invoices to the consumer
- (d) there may be inaccurate quantification of the electricity conveyed through an ICP
- (e) there may be inaccurate invoices from the clearing manager to all traders trading within the same balancing area as consumption volumes at the ICP will be shared as UFE¹¹⁵ to all traders
- (f) there may be inaccurate line charge settlement by the trader on the distributor's network.

5.92 The registry is an historical record of events and attributes of an ICP, and is not a work flow tool. The Code does not preclude the following steps occurring on the same day, provided the registry is updated within the time periods specified in the Code, and the effective dates in the registry are appropriate and correct:

- (a) trader arrangement with a consumer at an ICP
- (b) trader acceptance of responsibility for the ICP
- (c) trader arrangement with a person to become the MEP for the ICP
- (d) acceptance by the consumer, directly or indirectly, of the distributor's terms and conditions for connection
- (e) distributor creation of an ICP
- (f) distributor's approval for electrically connecting and subsequent electrical connection
- (g) running of service lines and connection to the distributor's network
- (h) inspection, testing, and certification of an installation under the Electricity (Safety) Regulations 2010
- (i) installation and certification of the metering installation by the ATH
- (j) distributor and trader authorisation, and subsequent electrical connection, of the ICP.

Status of an ICP

5.93 Once an ICP has been connected by a distributor, the ICP identifier in the registry may remain in the "New" or "Ready" status for any period of time as long as it remains electrically disconnected. As only a reconciliation participant can co-authorise the initial electrical connection, the ICP must not be electrically connected unless a reconciliation participant has accepted responsibility for the ICP.¹¹⁶

5.94 A trader that has an arrangement with a customer to supply electricity to the customer must update the registry as follows:¹¹⁷

- (a) if the ICP is electrically disconnected, the ICP identifier must be updated from "Ready" to "Inactive" by the relevant trader. Updating the ICP identifier to "Inactive"

¹¹⁵ UFE is unaccounted for electricity, it is an additional loss applied to a purchaser's electricity invoice from the clearing manager.

¹¹⁶ Clause 10.33A(1).

¹¹⁷ Clause 11.15 and Clause 9(1)(j) of Schedule 11.1.

during the period of time that the ICP is not electrically connected may allow a trader time to arrange an MEP to install a metering installation.

- (b) if the ICP is electrically connected, the ICP identifier must be updated from “Ready” to “Active” by the trader that authorised the electrical connection of the ICP.¹¹⁸
- 5.95 Provided the trader notifies the registry of the MEP participant identifier when performing (a) or (b) above, the MEP can update registry metering records backdated to the MEPs acceptance date. This is regardless of the ICP identifier switching to another retailer prior to the registry metering records being updated initially.
- 5.96 Only a distributor may decommission an ICP on its network. Decommissioning means that the connection has been permanently removed from the distributor’s network. The process for decommissioning an ICP identifier in the registry is as follows;
- (a) the trader responsible for the ICP identifier in the registry must change the registry status of the ICP to “*Inactive*” with a status reason of “*electrically disconnected, ready for decommissioning*”.
- (b) there is no obligation in the Code that requires a distributor to actually decommission an inactive ICP identifier. The ICP could remain at the inactive status for any period of time. Provided that the ICP is actually electrically disconnected, market processes will continue to work accurately
- (c) a distributor cannot update an ICP identifier to decommissioned unless the change described in paragraph (a) has been carried out by the current trader for the ICP. Only the distributor can update the ICP status to “Decommissioned”.
- 5.97 Note that if a trader unreasonably delays updating the status of the ICP to “*Inactive*” to a status reason of “*electrically disconnected, ready for decommissioning*”, or uses the wrong date, the distributor cannot update the status in accordance with the Code. In this instance, the trader may cause the distributor to breach its Code obligations.
- 5.98 While market processes may cope with distributors not decommissioning an ICP when asked to, leaving the ICP status as “*inactive*” means traders (and ultimately consumers) may continue to incur costs (both network charges and otherwise). In addition, if distributors do not complete decommissioning, it creates confusion in the future when the historical state of a site is uncertain, attracting further costs to resolve.
- 5.99 Once an ICP identifier has been decommissioned it should not be recommissioned or re-used. The ICP identifier is used as a primary key in:
- (a) the registry
- (b) customer invoicing
- (c) market physical and financial settlement processes.
- 5.100 However, if a distributor has incorrectly updated an ICP identifier in the registry to decommissioned, the Code requires the distributor to correct its registry entries, and the distributor must reverse the decommissioned status.¹¹⁹

¹¹⁸ Clause 10.32(a).

¹¹⁹ Clause 11.2.

5.101 When decommissioning an ICP, a distributor should be mindful of its obligations in subpart 3 of Part 4 of the Electricity Industry Act 2010 and the Electricity (Safety) Regulations 2010.

Obtaining an ICP identifier

5.102 Distributors are required to populate the registry with an ICP identifier for every ICP on its network.¹²⁰

5.103 Participants may request a distributor to create an ICP identifier for an ICP. The requested distributor must within three business days of receiving the request either create the ICP identifier or advise the requesting participant of the reason for not creating one.¹²¹

5.104 Where an ICP identifier for an existing electrical installation is unknown, the ICP identifier could be found by:

- (a) looking at the metering installation certification sticker in the electrical installations meter box
- (b) searching the registry. Any registry user can search on the registry for the ICP identifier using one of the following search methods:
 - (i) serial number of one of the metering components
 - (ii) street address (note that the correct sequence must be used for flats, etc)
 - (iii) property name (if populated in the registry).

5.105 Distributors may also be able to assist locating the correct ICP identifier for an existing electrical installation from within its connection records.

Decommissioning an ICP

5.106 Only a distributor may decommission an ICP on its network. Decommissioning means that the connection has been permanently removed from the distributor's network. The process for decommissioning an ICP identifier in the registry is as follows:

- (a) unless a decommissioning of an ICP identifier in the registry is to correct an error, all other requests should only be generated by the customer
- (b) if a customer advises a distributor that an ICP is to be decommissioned, the distributor should also refer the customer to the current trader recorded in the registry as being responsible for the ICP
- (c) the trader responsible for the ICP identifier in the registry must change the registry status of the ICP to "Inactive" with a status reason of "electrically disconnected, ready for decommissioning". Note that:
 - (i) the Code requires participant entries in the registry to be accurate¹²²
 - (ii) the Code prescribes maximum time period for a trader to update the registry¹²³ which includes a request from a customer to decommission an ICP

¹²⁰ Clause 11.4

¹²¹ Clause 11.5

¹²² Clause 11.2.

¹²³ Clause 10 of Schedule 11.1.

- (d) following physical decommissioning of the ICP, the distributor changes the ICP status in the registry to decommissioned

5.107 Distributors have an ongoing responsibility in the Electricity Industry Act 2010¹²⁴ to provide continuance of supply under certain circumstances. Despite traders updating an ICP in the registry as “Inactive” with a status reason of “electrically disconnected, ready for decommissioning”, distributors should ask the customer for separate confirmation that an ICP is to be physically decommissioned. Note the Code:

- (i) requires participant entries in the registry to be accurate¹²⁵
- (ii) prescribes the maximum time period for a distributor to update the registry¹²⁶ which includes a request from a customer to decommission an ICP

Provision of metering at an ICP

5.108 Traders are responsible for ensuring that there is a metering installation at electrically connected ICPs and that all electricity conveyed is quantified in accordance with the Code.¹²⁷

5.109 Traders are required in the Code to appoint the MEP for ICPs that are not solely unmetered.¹²⁸

5.110 MEPs are required to:

- (a) provide and maintain a certified metering installation at each active ICP it is responsible for¹²⁹
- (b) populate and maintain registry metering records for ICP identifiers into the registry¹³⁰
- (c) provide metering records to the reconciliation participant in the case of a metering installation for an NSP
- (d) investigate and report on metering installations that are faulty, inaccurate, or not fit for purpose
- (e) arrange temporary electrical connection of a metering installation for metering installation certification purposes¹³¹
- (f) where the services access interface for metering installations has been determined by an ATH to be the MEPs back office, interrogate the metering installations,¹³² and make raw meter data available to those parties entitled to receive it.¹³³

¹²⁴ Section 105 of the Electricity Industry Act 2010.

¹²⁵ Clause 11.2.

¹²⁶ Clause 8 of Schedule 11.1.

¹²⁷ Clause 10.24.

¹²⁸ Clause 9(1)(c) of Schedule 11.1.

¹²⁹ Clauses 10.13 and 10.38.

¹³⁰ Schedule 11.4.

¹³¹ Clause 10.33(2).

¹³² Clause 8 of Schedule 10.6.

¹³³ Clause 1 of Schedule 10.6.

Electrically connecting an ICP

- 5.111 There are two distinct processes in the Code for electrically connecting an ICP. These are set out below.
- 5.112 Note that “electrical connection” is a separate process to “connection”.

First time electrical connection of an ICP

- 5.113 The first time electrical connection of an ICP requires both the distributor and the reconciliation participant that is responsible for the ICP identifier in the registry to authorise an ICP to be electrically connected.¹³⁴ The authorisation can take the form of either individual authorisations, or it can be a blanket approval with conditions attached. The distributor and reconciliation participant need to agree the authorisation process. The distributor also needs to record the electrical connection date in the registry.¹³⁵
- 5.114 Before a reconciliation participant authorises the electrical connection of an ICP, it must first ensure that there is a certified metering installation in place to quantify the electricity conveyed through the ICP. Quantification takes the form of a metering installation that may be either or both of:
- (a) an assembly of metering components
 - (b) a calculation method in the case of unmetered load.¹³⁶
- 5.115 A reconciliation participant must not authorise the electrical connection of an ICP if the electrical connection would breach the Electricity (Safety) Regulations 2010.¹³⁷ Before issuing the authorisation to electrically connect, a trader must ensure that the electrical installation is safe to electrically connect. Measures to ensure the installation is safe include the distributor’s safety clearance, or a review of inspections and certificates by the person responsible for the inspection of the electrical installation.
- 5.116 While certification of a metering installation may be carried out after the electrical connection date, both the electrical connection date and the metering certification date should be correctly recorded in the registry.
- 5.117 A service line to an ICP that is connected may have voltage present. This is because the device that electrically connects an electrical installation may be within the consumer’s installation, and may also be backfed from islanded generation. **Both electrically disconnected conductors and service lines must be treated as live at all times.**

Electrical connection of an ICP that has been previously electrically disconnected

- 5.118 The Code permits only the reconciliation participant that is responsible for the ICP identifier in the registry to authorise an ICP to be electrically connected¹³⁸ unless the ICP identifier for the ICP has the following reconciliation type:
- (a) LE or SI, as there is no trader in the registry to authorise the electrical connection
 - (b) SB, as there is no ability to electrically connect the ICP because volumes are determined by a subtraction process but there is a trader in the registry.

¹³⁴ Clause 10.33(1).

¹³⁵ Clause 7(p) of Schedule 11.1.

¹³⁶ Refer to definition of “metering installation” in Part 1 of the Code.

¹³⁷ Clause 10.33A(3)(b).

¹³⁸ Clause 10.33A(1).

- 5.119 Before a reconciliation participant authorises the electrical connection of an ICP, it must first ensure there is an operational metering installation in place to quantify the electricity conveyed through the ICP as follows:
- (a) for solely unmetered load, there must be a calculation method¹³⁹
 - (b) for category 1 to 5 metering installations, the metering installation must be operational but may be uncertified provided that it is certified within five business days of the electrical connection date.¹⁴⁰
- 5.120 Note that a reconciliation participant must not authorise the electrical connection of an ICP if any of the following apply:¹⁴¹
- (a) a distributor has electrically disconnected the ICP for safety reasons, and has not subsequently approved the electrical connection
 - (b) electrically connecting the interconnection POC would breach the Electricity (Safety) Regulations 2010.
- 5.121 Note that if an ICP has been electrically disconnected for more than six months, the person proposing to electrically connect the ICP must, “...before doing so, give or sight a certificate issued in accordance with section 3 of AS/NZS 3019 that was issued no earlier than 6 months before the date of reconnection.”¹⁴²
- 5.122 A service line to an ICP that is connected may have voltage present as the device that electrically connects an electrical installation may be within the consumer’s installation and may also be backfed from islanded generation. **Both electrically disconnected conductors and service lines must be treated as live at all times.**

Temporary electrical connection of an ICP

- 5.123 Temporary electrical connection means the electrical connection of an ICP for:
- (a) the activities or processes necessary for, or as part of, the certification of a metering installation; or
 - (b) the maintenance, repair, testing, or commissioning of a metering installation.
- 5.124 The relevant distributor may electrically connect an ICP if an MEP that has an arrangement with the trader at the ICP has requested temporary electrical connection.¹⁴³
- 5.125 The ICP can remain electrically connected after the metering installation has been certified provided that both the distributor and the trader responsible for the ICP agree.
- 5.126 If a metering installation fails certification, the MEP should notify the trader.

Electrically disconnecting an ICP

- 5.127 The Code does not describe who may electrically disconnect an ICP, however it does set out requirements for electrical connection. The registry records a disconnection as change to the status of an ICP.

¹³⁹ Clause 10.33A(2)(b).

¹⁴⁰ Clause 10.33A(2)(a)(iii).

¹⁴¹ Clauses 10.33A(3).

¹⁴² Section 74(2) of the Electricity (Safety) Regulations 2010.

¹⁴³ Clause 10.31A.

- 5.128 The Code requires that any ICP established after 7 October 2002 must be able to be electrically disconnected without electrically disconnecting another ICP.¹⁴⁴
- 5.129 It is preferable to electrically disconnect in a manner and at a location that can be easily identified and electrically reconnected. The inactive status reasons codes in the registry include common locations of disconnections. These codes do not list all possible points of disconnection, there are a number of other mechanisms available to traders to complete a disconnection.
- 5.130 Traders should use the appropriate valid reason code setting out the disconnection location. The following list is suggested as a priority order for the location of an electrical disconnection:¹⁴⁵
- (a) 07: electrically disconnected remotely by AMI meter (note this is normally only possible on a category 1 metering installation)
 - (b) 11: electrically disconnected at meter box switch
 - (c) 10: electrically disconnected at meter box fuse
 - (d) 08: electrically disconnected at pole fuse
 - (e) 09: electrically disconnected due to meter disconnected.
- 5.131 If an ICP is electrically disconnected for any reason, the Code requires the trader for the ICP to update the status of the ICP identifier in the registry to “Inactive”, and assign a valid reason code.¹⁴⁶ Consequently, if a distributor electrically disconnects or disconnects an ICP, it should advise the trader as soon as possible so that the trader can fulfil its Code obligations.
- 5.132 Failure to update the registry with the disconnected status of an ICP may misguide a gaining trader in an ICP trader switch. Consequently traders are required to ensure that all information in the registry is correct at all times, and errors are corrected as soon as practicable.¹⁴⁷
- 5.133 Electrical disconnections should not be carried out by disconnecting conductors if it can be avoided. Performing an electrical disconnection by breaking seals within a metering installation or disconnecting conductors:
- (a) does not meet the Code definition of electrical disconnection. The Code defines electrically disconnect as:

electrically disconnect means to operate a device so that **electricity** is unable to flow, including through a **point of connection**, and **electrically disconnected**, **electrically disconnecting**, **electrical disconnection**, and similar phrases have corresponding meanings.¹⁴⁸
 - (b) if carried out at the terminal block of a meter or elsewhere within a metering installation, effects the certification status of a metering installation. The Code provides that a participant that:

¹⁴⁴ Clause 3 of Schedule 10.1.

¹⁴⁵ Note: changes to these ICP status reasons were consulted on and are subject to change. This guideline will be updated once the decisions have been made.

¹⁴⁶ Clauses 9(1)(j) and 19 of Schedule 11.1.

¹⁴⁷ Clause 11.2.

¹⁴⁸ Definition in Part 1 of the Code.

- (i) has broken seals must report the breakage to the MEP responsible for the metering installation within 10 business days.¹⁴⁹
 - (ii) becomes aware that another participant or person has broken seals must report the breakage to the MEP responsible for the metering installation within 10 business days.¹⁵⁰
 - (iii) is responsible for breaking the seals is required to reimburse the cost of reinstating and recertifying the metering installation within 10 business days of being advised the cost.¹⁵¹
 - (iv) does not have the consent of the MEP responsible for the metering installation, or the trader responsible for the ICP identifier in the registry, is interference with the metering installation. This is a breach of the Code.¹⁵²
- (c) If the ATH that certified a metering installation considers, as a result of the metering installation connections being used for electrical disconnection, that the integrity and accuracy of a metering installation has also been affected, then:
- (i) the certification of the metering installation is automatically cancelled¹⁵³
 - (ii) the ATH should allege a Code breach against the participant (if it is not the MEP for the ICP identifier) that authorised the electrical disconnection in this manner.¹⁵⁴

Provision of submission information to the reconciliation manager for an interconnection NSP

- 5.134 Traders are responsible for providing submission information to the reconciliation manager for ICP identifiers that they are responsible for in the registry.
- 5.135 The submission information process is set out in Part 15 of the Code,¹⁵⁵ and the reconciliation manager's functional specification.¹⁵⁶

Distributors responsibilities in the connecting and electrical connection process for an ICP

- 5.136 Distributors are responsible for:
- (a) approving a connection to its network, but only if it is requested by a reconciliation participant
 - (b) ensuring that the ICP can be electrically disconnected without electrically disconnecting any other ICP
 - (c) creating an ICP identifier in the registry, populating and maintaining distributor registry information during the life cycle of the ICP¹⁵⁷

¹⁴⁹ Clause 48(1) of Schedule 10.7.

¹⁵⁰ Clause 48(3) of Schedule 10.7.

¹⁵¹ Clause 48(2) of Schedule 10.7.

¹⁵² Clause 10.12.

¹⁵³ Clause 20(1)(a) of Schedule 10.7.

¹⁵⁴ Clause 10.12.

¹⁵⁵ Available on the web page at [The Code](#).

¹⁵⁶ Available on the web page at [Reconciliation Manager functional specification](#).

¹⁵⁷ Clause 11.4 and 7 of Schedule 11.1.

- (d) co-approving the first time electrical connection of an ICP and recording the date of an ICPs initial electrical connection in the registry
- (e) the safety of the ICP, and safety disconnections or safety electrical disconnections
- (f) advising the trader as soon as possible if it carries out a disconnection or electrical disconnection
- (g) following the process set out in the Code for connection of distributed generation¹⁵⁸
- (h) if the trader and customer agrees, decommissioning the ICP and the ICP identifier at the end of its life cycle.¹⁵⁹

5.137 Distributors must not:

- (a) electrically connect an ICP without being authorised to do so by the trader that has a contract with the customer at the ICP¹⁶⁰
- (b) interfere with a metering installation unless either the distributor has an arrangement with the relevant trader or has been instructed to do so by the relevant MEP¹⁶¹
- (c) electrically connect an ICP solely on instruction from a customer. The distributor should always get the consent of the trader before carrying out an electrical connection.

Reconciliation participants responsibilities in the connecting and electrical connection process for an ICP

5.138 Reconciliation participants are required to:

- (a) enter into an arrangement with a customer, prior to requesting the connection of an ICP¹⁶²
- (b) request the connection of an ICP, but only if they are the reconciliation participant that has accepted responsibility for the obligations set out in Parts 11 and 15 for the POC¹⁶³
- (c) enter into an arrangement with an MEP to provide a metering installation for ICPs it is responsible for,¹⁶⁴ unless the POC is solely unmetered load that complies with the appropriate Code requirements¹⁶⁵
- (d) ensure that it, or its customer, has entered into an arrangement for line function services with the relevant distributor¹⁶⁶
- (e) update and maintain required information in the registry including maintaining ICP statuses (as either “Active” or “Inactive”) on the registry¹⁶⁷

¹⁵⁸ Refer to Part 6 of the Code.

¹⁵⁹ Clause 20 of Schedule 11.1 and refer to the registry functional specification paragraph 1.13.2(p).

¹⁶⁰ Clauses 10.33A(4) and 11.17(2).

¹⁶¹ Clause 10.12.

¹⁶² Clause 11.15.

¹⁶³ Clause 10.32.

¹⁶⁴ Clause 10.32(b).

¹⁶⁵ Clause 10.14.

¹⁶⁶ Clause 11.16.

¹⁶⁷ Clause 9 of Schedule 11.1.

- (f) ensure that a metering installation is provided for the POC.¹⁶⁸ It is ideal that when providing a service request to an MEP to install a metering installation, that the trader at the same time notifies the registry of the MEP participant identifier
- (g) obtain written approval for initial electrical connection of an ICP from the relevant network owner¹⁶⁹
- (h) authorise initial electrical connection of a POC after receiving approval from the relevant distributor¹⁷⁰
- (i) arrange access to the premises containing a metering installation for the MEP¹⁷¹
- (j) authorise an MEP to request temporary electrical connection¹⁷²
- (k) electrically connect and electrically disconnect the ICP during its life cycle as necessary
- (l) at the end of the life cycle of the ICP, recommend to the distributor that the ICP should be decommissioned.¹⁷³

Responsibility of an MEP in the connection and electrical connection process

5.139 MEPs have a number of responsibilities for the connection and electrical connection of a POC as follows:

- (a) must consult with the distributor and the trader for the attributes of the metering installation¹⁷⁴
- (b) must not electrically connect a POC without the authorisation of the trader responsible for that POC¹⁷⁵
- (c) should make all reasonable endeavours to liaise and work with living agents to ensure that electrical connection of a POC is not unduly delayed
- (d) need to be timely with paperwork:
 - (i) for NSPs, there is no prescribed time period and the provision of information is a contractual issue, but should be as soon as possible
 - (ii) for ICPs, the Code required time period to provide registry metering records to the registry are maximums.¹⁷⁶

6 Connecting and electrically connecting: additional considerations

6.1 There are a number of issues that should be managed when connecting and electrically connecting a new POC, including but not limited to those set out below.

¹⁶⁸ Clause 10.32(b).

¹⁶⁹ Clause 10.33.

¹⁷⁰ Clause 10.33(1)(c).

¹⁷¹ Clause 10.7.

¹⁷² Clause 10.33(2).

¹⁷³ Refer to the registry functional specification paragraph 1.13.2(p).

¹⁷⁴ Clause 10.34(2).

¹⁷⁵ Clause 10.33A(4).

¹⁷⁶ Clause 2 of Schedule 11.4.

Property issues

- 6.2 Property issues are often managed through commercial arrangements between the parties involved. Such arrangements are not covered by the Code.
- 6.3 If a service line:
- (a) crosses another person's land, the property owner to be supplied may need to arrange easements for access to allow installation, maintenance, or replacement.
 - (b) crosses public land, appropriate consents and easements may need to be made with the relevant territorial authority
 - (c) is not dedicated to the land owner, the distributor may need to arrange easements to allow access for installation, maintenance, or replacement.
- 6.4 The Authority strongly recommends that participants understand their Code obligations, other relevant legislation, and that consumers and participants take appropriate legal advice.

Network issues

- 6.5 The consumer or generator should have accepted the distributor's terms and conditions, either directly or through a contract with a trader.
- 6.6 The MEP and approved test house (ATH) must comply with the network owner's terms and conditions for connection when connecting or electrically connecting a POC.
- 6.7 There are a number of requirements that should also be considered by the distributor and consumer, including but not limited to:
- (a) required initial and future capacity requirements
 - (b) reactive power flows and metering
 - (c) power quality at the POC including harmonics¹⁷⁷
 - (d) Part 6 of the Code for connection of distributed generation and impacts of any distributed generation installed
 - (e) the Electricity (Hazards from Trees) Regulations 2003
 - (f) resource consents
 - (g) whether generation and consumption occur at the same POC.

Electricity safety issues

- 6.8 A POC should not be electrically connected if the:
- (a) distributor has not authorised the electrical connection of a new point of connection¹⁷⁸
 - (b) distributor has disconnected or electrically disconnected the POC for safety reasons, unless the distributor has subsequently approved the electrical connection¹⁷⁹

¹⁷⁷ Refer to NZECP 36 available on the web page at [Electricity Standards and Codes of Practice](#).

¹⁷⁸ Clause 10.33(1)(c).

¹⁷⁹ Clause 10.33(3)(a).

- (c) electrical connection of the POC would breach the Electricity (Safety) Regulations 2010.¹⁸⁰

Other Code issues

- 6.9 If the POC is to have distributed generation connected for an embedded generation connection, then Part 6 of the Code (which provides regulated terms and conditions) may apply.
- 6.10 An isolating device for the ICP must be available.¹⁸¹
- 6.11 If the premises containing a metering installation:
 - (a) has a consumer, then the trader must obtain authorisation for access from the consumer;¹⁸² or
 - (b) has no consumer, then the trader must arrange for access to the metering installation.¹⁸³

¹⁸⁰ Clause 10.33(3)(b).

¹⁸¹ Clause 3 of Schedule 11.1.

¹⁸² Clause 10.7.

¹⁸³ Clause 10.7

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
ATH	Approved test house
Authority	Electricity Authority
Board	Electricity Authority Board
Code	Electricity Industry Participation Code 2010
GIP	Grid injection point
GXP	Grid exit point
ICP	Installation control point
MEP	Metering equipment provider
NSP	Network supply point
POC	Point of connection
Trader	Participant that buys electricity from or sells electricity to the clearing manager

Where the context permits, expressions that are used in these guidelines that are defined in the Code, bear the same meaning as they do in the Code.