Electricity Industry Participation Code 2010

Part 10

Metering

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10.1 Contents of this Part

This Part provides for—

(a) the accuracy of the clearing and settlement of **electricity trading** in the wholesale **electricity** market by regulating how existing and new **metering** is used to measure **electricity** conveyed; and

(b) the responsibility for the provision of **metering installations**; and

(c) the responsibility for ensuring the compliance of **metering installations**; and

(d) the processes and procedures to apply for testing, **calibrating**, **certifying** and **recertifying metering installations**; and

(e) the processes and procedures to apply for **auditing approved test houses** and **metering equipment providers**; and

(f) the processes and procedures to apply for approving **approved test houses**; and

(g) regulating the data use, handling, storage and transmission processes associated with **metering** and **metering data**; and

(h) regulating **metering installations** that are used for **electricity trading**; and **[rule 1 of COP D3]**

(i) ensuring that **metering installations** accurately record **electricity** conveyed; and **[rule 1 of COP D3]**

(j) processes and procedures relating to **metering data**, which interrelate with Part [E] and interrogation of **metering installations** which interrelate with Part [J]; and

(k) related matters, processes and procedures.

Subpart 1—Preliminary provisions

10.2 Authority's and market administrator's discretion and powers

(1) A clause in this Part that gives the **Authority** or **market administrator** a discretion or power—

(a) confers on the **Authority** or **market administrator**, as the case may be, an absolute discretion, subject to taking into account any specific requirements set out in the clause; and

(b) to approve a **participant** to carry out activities under this Part, may be exercised by—

(i) granting the approval; or

(ii) declining the approval; or

(iii) granting the approval with any conditions that the **Authority** or the **market administrator**, as the case may be, considers appropriate in the circumstances.

(2) The **Authority** or the **market administrator**, when exercising a discretion or power under this Part, must act in a timely manner.

(3) If the **Authority** or the **market administrator** declines an application for approval to carry out activities under this Part, it must give the unsuccessful applicant reasons for its decision to decline the application.

10.3 Use of contractors and participant obligations

(1) A **participant** may carry out its obligations and exercise its rights under this Part by using a contractor.

(2) A **participant** who uses a contractor under subclause (1) to discharge an obligation under this Part—

(a) remains responsible and liable for, and is not released from, the obligation, or any other obligation under this Code; and

(b) cannot assert, against anyone, that it is not responsible or liable for its obligations because a contractor has done or not done something, or has failed to meet a relevant standard; and

(c) must ensure that the contractor has at least the specified level of skill, expertise, experience or qualification that the **participant** would otherwise be required to have if it were carrying out the functions or exercising the rights itself.

(3) A **participant** must not contract, whether or not the contract was entered into before this Part comes into force, with any other person in a manner that would vary, or purport to vary, or which would have the intended effect of varying or being inconsistent with or contradictory to, any obligation under this Part.

(4) Where this Part provides that a **consumer's** consent, approval or authorisation is needed, a **participant** who contracts with the **consumer** must ensure that such consent, approval or authorisation extends, for the full term of the contract, to all persons who may be expected to rely on that consent, approval, or authorisation to remain in compliance with this Part.

(5) A breach of an obligation under this Part by a **participant** incorrectly populating the **registry**, which causes or leads to a breach of an obligation under this Code by another **participant**, only excuses the other **participant** from the consequences of being in breach if—

(a) the other **participant** relied on information **published** by the **registry** under this Code; and

(b) none of the other **participant's** personnel knew that the information **published** by the **registry** was incorrect.

(6) For clarity, a **participant** referred to in subclause (5) that incorrectly populates the **registry** is in breach of this Code.

(7) A **metering equipment provider** must, when contracting with an **approved test house** in relation to the required activities for the **certification** and **recertification** of its **metering installations**, must—

(a) include terms and conditions in the contract that require the **approved test house** to comply, for the full term of the contract, with all of the obligations that apply to **approved test houses** in this Part; and

(b) ensure that an **approved test house** contracted to perform work under this Part has the appropriate scope of approval for such work.

(8) A **participant** must comply with all applicable enactments.

10.4 Participant to supply accurate metering data

(1) A **participant** must take all practicable steps to ensure that information that it provides to any person or the **registry** under this Part is—

(a) complete and accurate:

(b) not misleading or deceptive:

(c) not likely to mislead or deceive.

(2) If a **participant** becomes aware that information it has provided to a person or the **registry** under this Part was incomplete, inaccurate, misleading, deceptive, or likely to mislead or deceive, the **participant** must as soon as practicable, and no later than 5 **business days** after becoming so aware, correct or clarify the information and provide the corrected or clarified information to the person or the **registry** who originally received the information that was incomplete, inaccurate, misleading, deceptive, or likely to mislead or deceive, drawing specific attention to the correction or clarification.

(3) A **participant** who is required to give a person access under this Part, must do so in a manner that is appropriate in the circumstances, to enable the person to exercise the person's rights, or perform the person's obligations, that are dependent, either directly or indirectly, on access being given.

10.5 Requirements for information to be recorded, given, produced or received

(1) In this Part, a **participant** who must record, give, produce, or receive information, must do so in accordance with one or more of the following requirements **published** or **notified** by the **Authority**:

(a) particular electronic technology requirements:

(b) requirements providing for the use of a particular kind of **data storage device**:

(c) requirements providing for the use of a particular kind of electronic **communication**.

(2) The Electronic Transactions Act 2002 does not, because of section 14(2)(a) of that Act, apply to this Part.

10.6 Demarcation of responsibility between metering equipment provider and reconciliation participant

(1) The demarcation of the responsibility of a **metering equipment provider** under this Part and a **reconciliation participant** under Part **[**J**]**, is at the **services access interface**.

(2) A **metering equipment provider** is responsible for providing and maintaining the **services access interface**.

(3) The **services access interface** for a **metering installation** is, for all purposes of this Part determined by the **approved test house certifying** the **metering installation** and documented in the **certification report**.

10.7 Standards used

Where this Part refers to compliance with a standard, including AS/NZS and IEC standards, such reference is to—

(a) the version of the standard existing as at the date this Part comes into force; or

(b) any amendment to or replacement of such standard incorporated by the **Authority** in accordance with its obligations under the **Act**; or

(c) any equivalent standard incorporated by the **Authority** in accordance with its obligations under the **Act**. **[Rule 2 of COPD4]**

Metering Installations

10.8 Categories of metering installations

(1) An **approved test house** must, before it may **certify** a **metering installation**, determine the category of the **metering installation** by determining the characteristics of the **metering installation**, in accordance with—

(a) clauses (3) and (4) of Schedule 10.7; and

(b) Table 1 of Schedule 10.1.

(2) An **approved test house** must, when producing a **metering installation certification report**, record the category.

(3) A **participant** must not determine that a **metering installation** is category 0 unless it is used solely for **unmetered load**.

(4) The category of all **metering installations**, other than a category 0 **metering installation**, is for all purposes of this Part determined by the **approved test house certifying** the **metering installation** and documented in the **metering installation certification report**.

10.9 Responsibility for categories of metering installations

(1) A **metering equipment provider** must only measure and record **electricity**, conveyed through a **point of connection** for which it is responsible, by using a category 1, 2, 3, 4 or 5 **metering installation**.

(2) A **retailer** must only measure and record **electricity**, conveyed through a **point of connection** for which it is responsible for measurement and recording, by using a category 0 **metering installation**.

10.10 Electricity conveyed

(1) A **participant** must, subject to subclause (2), use the quantity of **electricity** measured by a **metering installation** at a **point of connection** as the record of supply for the quantity of **electricity** conveyed through the **point of connection**.

(2) Subclause (1) does not apply to electricity that is—

(a) estimated in accordance with this Code; or

(b) gifted in accordance with clause 3.2 of Part [J].

(3) A **metering equipment provider** must, for each **point of connection** for which it is recorded as being the **metering equipment provider** in the **registry** or the **NSP** table, ensure that all flows of **electricity** through each **point of connection** are measured by a **metering installation**, in accordance with this Part.

(4) Despite subclause (3), a **metering equipment provider** is not required to measure **electricity** conveyed through a **point of connection** that is—

(a) **unmetered load**; and

(b) gifted in accordance with clause 3.2 of Part [J].

10.11 Unmetered load

(1) A **retailer** who is responsible for an **ICP** as recorded in the **registry** must, if all or part of the load at the **metering installation** at the **ICP** is **unmetered load**, ensure that the **unmetered load** is not greater than—

(a) 3,000 kWh in any 12 month period of non-predictable load; or

(b) 6,000 kWh in any 12 month period of predictable load of a type approved and **published** by the **Authority**.

(2) A **retailer**, if the load during any 12 month period exceeds the applicable threshold under subclause (1),—

(a) is in breach of this clause from the date on which the threshold was first exceeded; and

(b) must, as soon as reasonably practicable but no later than 20 **business days** after the threshold was first exceeded, take corrective measures which must comply with this Part; and

(c) must, as soon as reasonably practicable, but no later than 3 **business days** after, it becomes aware of the threshold having been first exceeded, **notify** each **participant** who is, or would reasonably be expected to be, affected, of—

(i) the date on which the threshold was first exceeded; and

(ii) the details of changes to any other relevant **unmetered load**.

10.12 Security of metering data

A participant who has the right to collect, obtain, use and store **metering data**, must take measures that comply with best industry practice in similar industry sectors, both in New Zealand and internationally, to ensure that there is no unauthorised access, including remote access to, or use of, the **metering data**.

10.13 When metering equipment provider needs to obtain access to other metering equipment provider's metering data

If a **retailer** or **distributor** wishes to contract with only one **metering equipment provider** in respect of **metering installations** at more than one **point of connection** that are the responsibility of more than one **metering equipment provider**, and the **retailer** or **distributor**, and the **metering equipment provider** agree the commercial terms for such arrangement, the **metering equipment provider** must—

(a) contract with the other relevant **metering equipment providers**, so that it can use the relevant **metering installations** to provide the **metering data**; and

(b) obtain the **metering data** using the relevant **services access interface**.

10.14 Authority may require provision of metering data

(1) The **Authority** may, at any time, require a **participant** to provide it with any **metering data**.

(2) A **participant** must—

(a) comply with any requirement under subclause (1); and

(b) not charge the **Authority** for any costs or expenses in complying with any such requirement.

(3) The **Authority**, if it requires a **participant** to provide **metering data**,—

(a) must give the **participant** 5 **business days'** notice, setting out all relevant particulars; and

(b) may use the **metering data**, for any purpose consistent with this Code; and

(c) need not give any reasons for requiring the **metering data**.

10.15 Metering data exchange timing and formats

(1) If an obligation exists to provide information in accordance with this Part, a **participant** must provide the information to the required person—

(a) within the timeframe specified in this Code, or, in the absence of any such timeframe, within any timeframe notified by the **Authority**; and

(b) in the format determined from time to time by the **Authority**.

(2) Despite subclause (1)(b), a **participant** may use an alternative format if—

(a) it has an agreement with another person for the use of the alternative format; and

(b) is able to comply within 1 **business day** with any format requirements determined by the **Authority** under subclause (1).

(3) Despite using an alternative format under subclause (2), a **participant** must still comply with all obligations in this Code.

(4) Subclause (2) does not apply to—

(a) a **market operation service provider**:

(b) the **Authority**.

Audit Requirements

10.16 Authority's right to require additional audits and approve auditors

(1) For the purposes of this clause and Schedule 10.2, the term **relevant participant** means a **metering equipment provider** or **approved test house**, as the case may be.

(2) The **Authority** may carry out an **audit** of a **relevant participant** under Schedule 10.2 itself, or may appoint an **auditor** to carry out the **audit**.

10.17 Production of audit report

(1) The **Authority** must produce, or must require the **auditor** appointed by the **Authority** to produce, an **audit** report that—

(a) addresses the matters required of it under this Part; and

(b) identifies— **[Rule 7.5.2 of COP D2]**

(i) the extent to which the facilities, processes, and procedures of the **relevant participant**, and any relevant items used by the **relevant participant**, comply with the requirements of this Part both at the time of the **audit** and historically; and

(ii) areas for improvement having regard to the minimum requirements for compliance with this Part.

(2) The **Authority** must ensure that before it, or the **auditor** it has appointed, finalises the **audit**, any instances of a breach are referred back to the **relevant participant**.

(3) The **relevant participant** must, within 10 **business days** of receiving **notification** of the breach, provide details of any action that the **relevant participant** has taken to correct the breach.

(4) The **Authority** must ensure that the **audit** report includes details of action taken by the **relevant participant** to correct the breach.

(5) The **Authority** must **publish** a summary of the **audit** report and, where appropriate, any responses from the relevant **participant**.

10.18 Auditors

(1) The **Authority** may, at its absolute discretion and from time to time, approve persons to be **auditors**, for particular types of **audits**, in accordance with this Part.

(2) If approval is given, then unless it is withdrawn in accordance with subclause (7), it will last for a period of 24 months from the date of approval.

(3) Each **auditor** must be approved, in accordance with this clause, at the time it carries out an **audit**, and must not have received notification from the **Authority** of the withdrawal of approval.

(4) When making an application to the **Authority** for approval, or for renewal of an existing approval, as an **auditor**—

(a) the applicant must, at least 2 months before the intended effective date of the approval or renewal, apply in the **prescribed form**; and

(b) the **Authority** must assess and, only if in the **Authority's** view it is appropriate, approve the application; and

(c) the applicant must respond to the **Authority**, as quickly as practicable, providing any clarification, further data or information that the **Authority** may request.

(5) The **Authority** may require the applicant, or any of its personnel, to attend such interviews and undertake such examinations as the **Authority** thinks fit.

(6) The **Authority** must **publish**, and keep updated, a list of **auditors** approved for particular types of **audits**.

(7) The **Authority** may, at any time and for any reason, withdraw its approval for that person to be an **auditor**, with immediate effect, by removing that person's name from the list of approved **auditors**. If this happens—

(a) the removal of an **auditor** does not invalidate any **audits** previously completed by that **auditor**; and

(b) any **audit** in progress on, or completed after, the date on which the **auditor** is removed from the list of approved **auditors** is not a valid **audit** for the purposes of this Code.

Subpart 2—Ongoing obligations

Metering equipment providers

10.19 Each metering installation must have metering equipment provider

(1) A **participant** who is responsible under Part **[J]** for providing **submission information** for a **point of connection** to the **reconciliation manager** must ensure that each **metering installation** that is being used for an activity regulated under this Code, at the **point of connection**, has a **metering equipment provider** under clause 10.20.

(2) A **participant** must not use, and must not permit any person to use, a **metering installation** at a **point of connection** for an activity regulated under this Code if, at the time of such use, the **metering installation** does not have a **metering equipment provider** under clause 10.20.

(3) Despite subclauses (1) and (2), a **point of connection** where **electricity** conveyed is solely **unmetered load**—

(a) does not require a **metering equipment provider**; and

(b) may be used for an activity regulated under this Code.

10.20 Metering equipment provider

The **metering equipment provider**—

(a) for an existing **metering installation** being used for an activity regulated under this Code at the date on which this Part comes into force—

(i) for a **point of connection** on a **local network** or an **embedded network** (except a **point of connection** described in paragraph (ii) or (iii)), is the **participant**, including a **consumer**, who is identified in the **registry** as being the primary metering contact:

(ii) for a **point of connection** between **local networks**, or between **embedded networks**, or between a **local network** and an **embedded network**, is the **participant** who owns the **meter** at the **point of connection**:

(iii) for a **point of connection** to the **grid**, is the **participant** responsible for **metering** as set out in the **NSP** table on the **Authority's** website:

(b) for a **metering installation certified** (but not including a **metering installation** referred to in paragraph (a)) after the date on which this Part comes into force—

(i) for a **point of connection** on a **local network** or an **embedded network**, is the **participant** who has contracted with the **trader** under clause 10.27(1)(a)(ii):

(ii) for an **NSP** that is not a **point of connection** to the **grid**, is the **participant** responsible for providing the **metering installation** under clause 10.26:

(iii) for a **point of connection** to the **grid**, is the person who has contracted with the **participant** responsible for providing a **metering installation** under clause 10.25:

10.21 Obligations of metering equipment provider

A **metering equipment provider** must—

(a) ensure that it is **audited** in accordance with all applicable requirements in this Part including Schedule 10.5; and

(b) comply with all of its obligations in this Code including the obligations under Schedules 10.6, 10.7 and 10.8.

10.22 Timing for coming into effect of metering equipment provider's assumption of responsibility or appointment

(1) The obligations of a **metering equipment provider** under clause 10.20(a) commence on the date that this Part comes into force.

(2) The obligations of a person who assumes responsibility, or is appointed to be responsible, as **metering equipment provider**, under clauses 10.20(b) or 10.23, for a **metering installation** under this Part, commence,—

(a) for an **ICP** that is not an **NSP**, on the date that the **metering equipment provider's participant identifier** becomes visible in the **registry** for the **ICP identifier** for the **metering installation**; and

(b) for an **NSP**, on the effective date set out in the **NSP** table on the **Authority's** website.

(3) Despite subclause (2), for a person who would, except for an administrative failure, or for any similar reason, have become the **metering equipment provider**, the **Authority** may determine the date that the person assumes responsibility as a **metering equipment provider**.

10.23 Change of metering equipment provider

The **metering equipment provider** for a **metering installation**, as determined under clause 10.20, may change only if the **participant** responsible for the provision of the **metering installation** under clause 10.25, 10.26 or 10.27 contracts with another person to become the **metering equipment provider** for the **metering installation** and—

(a) in the case of a **metering installation** at an **ICP** that is not also an **NSP**—

(i) the **reconciliation participant** for that **metering installation notifies** the **registry** of the new **metering equipment provider**; and

(ii) the **registry** receives **notification** of acceptance (including the effective date from which the new **metering equipment provider** assumes its responsibility as **metering equipment provider** for the **metering installation**); or

(b) in the case of a **metering installation** at an **NSP**, the **distributor** for that **metering installation notifies** the **reconciliation manager** of the new **metering equipment provider**.

10.24 Termination of metering equipment provider responsibility

(1) A **metering equipment provider's** obligations for a **metering installation** terminate only when—

(a) for an **ICP** that is not also an **NSP**, the **metering equipment provider** changes in accordance with subclause 10.23(a), in which case the **metering equipment provider's** obligations will terminate from the date set out in subclause 10.22(2)(a); or

(b) for an **NSP**, the **metering equipment provider** changes in accordance with clause 10.23(b), in which case the **metering equipment provider's** obligations will terminate from the date set out in subclause 10.22(2)(b); or

(c) the **metering installation** is decommissioned; or

(d) conversion of the **ICP** at which the **metering installation** is located to be solely **unmetered load**.

(2) A **metering equipment provider** must, before ceasing to be a **metering equipment provider**, contract with a **metering equipment provider** to assume the first **metering equipment provider's** obligations, including record keeping obligations, which are expressed in this Part as having minimum time periods.

Provision of metering installations

10.25 Provision of metering installation at point of connection to grid

(1) A **participant** who proposes to connect to the **grid** must take all practicable steps and use its best endeavours to agree with the **grid owner** and any other affected **participants**, on which **participant** will provide, at its cost, the **metering installation** at a proposed new **point of connection**.

(2) If **participants** cannot agree, within 60 **business days** of the **grid owner** first receiving **notification** of a proposed new **point of connection** to the **grid**, on the **participant** to be responsible for the provision of a **metering installation**,—

(a) any affected **participant** may **notify** the **market administrator**—

(i) that agreement has not been reached; and

(ii) of the identity of all affected **participants**; and

(b) the **market administrator** must determine which **participant** must provide, at its cost, the **metering installation**; and

(c) the **market administrator** must **notify**—

(i) the relevant **participant** of its responsibility to provide the **metering installation**; and

(ii) the **participant** intending to connect to the **grid** of its determination; and

(iii) the **grid owner** of its determination.

(3) When determining under subclause (2)(b) which **participant** is responsible for providing the **metering installation**, the **market administrator** must, unless it is satisfied that there is good reason not to do so, do so on the basis that—

(a) the **grid owner** is responsible if the **market administrator** anticipates that **electricity** will predominantly be extracted from the **grid** at the **point of connection**; and **[Rule 2.1.3.1 of Part D]**

(b) the **participant** connecting **assets** to the **grid** at the **point of connection** is responsible if the **market administrator** anticipates that **electricity** will predominantly be injected into the **grid** at the **point of connection**. **[Rule 2.1.3.2 of Part D]**

(4) The **participant** responsible for providing the **metering installation** must also, for each proposed new **metering installation** at a **point of connection** to the **grid**, or in the case of a proposed modification to an existing **metering installation** under clause 15 of Schedule 10.7,—

(a) provide a copy of the **metering installation** design to the **grid owner** prior to ordering equipment or carrying out the modification to the **point of connection** design; and

(b) provide the **grid owner** with at least 3 months to review and comment on the **metering installation** design; and

(c) respond, within 3 **business days** of receipt, to any request from the **grid owner** for additional details or required changes to the **metering installation**; and

(d) ensure that any reasonable changes to the **metering installation** or the **metering installation** configuration requested by the **grid owner** are carried out; and

(e) accept responsibility for being the **metering equipment provider** for the **metering installation** or contract with a person who, in that contract, accepts responsibility for being the **metering equipment provider** for the **metering installation**; and

(f) **notify** the **reconciliation manager** of the identity of the **metering equipment provider** under paragraph (e) by no later than 20 **business days** after entering into a contract under paragraph (e); and

(g) **notify** the **reconciliation manager** of the **certification** expiry date of the **metering installation** by no later than 3 **business days** after **certification** of the **metering installation**.

(5) For each proposed new **point of connection** to the **grid**, if the **grid owner** considers, acting reasonably, that the proposed new **metering installation**, or a proposed change to an existing **metering installation**, or its configuration, requires any aggregation, summation, subtraction, **loss compensation** or **error compensation** process, to determine **submission information** for reconciliation, the **grid owner** must—

(a) provide all relevant details to the **market administrator**, in the **prescribed form**, at least 20 **business days** before—

(i) the proposed date for installing the **metering installation**; or

(ii) the date for making the proposed amendment to the **metering installation** or **metering installation** configuration; and

(b) respond, within 3 **business days** of receipt, to any request from the **market administrator** for additional details; and

(c) ensure that any reasonable changes to the **metering installation** or the **metering installation** configuration requested by the **market administrator** are carried out.

(6) A **metering equipment provider** must ensure that the quantity of **electricity** conveyed through a **point of connection** to the **grid** for which it is responsible is measured using a **half-hour metering installation**.

(7) If a **metering installation** at a **point of connection** to the **grid** is **recertified**, the **participant** responsible for providing the **metering installation** must, within 5 **business days** of the date of **recertification**, **notify** the **reconciliation manager** of the **metering installation certification** expiry date.

(8) If a **participant** considers, on the basis of historic **metering data**, that there has been a change in the overall net flow of **electricity** at a **point of connection** to the **grid** over any 12 month period, the **participant** who provides the **metering installation** may initiate the process under subclauses (1) to (3) with all necessary and consequential changes, in order to change the **participant** responsible for providing the **metering installation** under this clause.

(9) The process under subclause (8) will also result in a change in responsibility for the **metering installation** which will cause a change in responsibility for the provision of **submission information** to the **reconciliation manager** required under Part [J].

10.26 Provision of metering installation at NSP that is not point of connection to grid

(1) For each proposed **NSP** that is not a **point of connection** to the **grid**, the **network** owner initiating the **NSP** under Part **[**E**]** must—

(a) in respect of the **metering installation** at that **NSP**, either—

(i) assume responsibility for being the **metering equipment provider** for the **metering installation**; or

(ii) contract with a person who, in that contract, accepts responsibility for being the **metering equipment provider** for the **metering installation**; and

(b) no later than 20 **business days** after assuming responsibility or entering into the contract under paragraph (a), **notify** the **reconciliation manager** of—

(i) the **participant** who will be submitting **NSP** information to the **reconciliation manager** under Part **[**J**]** of this Code; and

(ii) the identity of the **metering equipment provider**; and

(c) no later than 20 **business days** after the date of **certification** of the **metering installation**, **notify** the **reconciliation participant** for the **NSP** of the **certification** expiry date of the **metering installation**.

(2) For each **NSP** that is not a **point of connection** to the **grid**, the **metering equipment provider** must ensure—

(a) that the **metering installation** configuration does not include subtraction to determine **submission information** for reconciliation in accordance with **[**Part J**]**; and

(b) that the quantity of **electricity** conveyed through the **point of connection** is measured using a **half-hour metering installation**.

10.27 Responsibility for providing metering installation at other points of connection

(1) For each **ICP** that is not an **NSP**, the **trader** must—

(a) either—

(i) assume responsibility for being the **metering equipment provider** for the **metering installation**; or

(ii) contract, with a person who, in that contract, accepts responsibility in accordance with clause 18B of Part [E] for being the **metering equipment provider** for the **metering installation**; and

(b) ensure that a **metering installation** configuration does not include subtraction to determine **submission information** for reconciliation in accordance with Part [J].

(2) A **metering equipment provider** must ensure that a **metering installation** for which it is responsible of category 3, 4 or 5, at an **ICP** that is not an **NSP**, is a **half-hour metering installation**.

Livening points of connection

10.28 Livening any point of connection

(1) A **network** owner must, before livening or permitting the livening of a **point of connection** to its **network** that is to be quantified with a category 0 **metering installation**, ensure that the relevant fields in the **registry** have been updated in accordance with Part [E].

(2) A **network** owner must, before livening or permitting the livening of a **point of connection** to its **network** that is to be quantified with a category 1 to 5 **metering installation**,—

(a) ensure it has received **notification** from a **metering equipment provider** that,—

(i) for an existing **point of connection**, a **certified metering installation** is in place; or

(ii) for a new **point of connection**, that a **certified metering installation** will be provided; and

(b) agree with the **metering equipment provider** on a date and time for livening of the **point of connection**.

(3) A **metering equipment provider** must, within 2 **business days** of a new **point of connection** under subclause (2)(a)(ii) being livened, ensure that the **network** owner responsible for livening the **point of connection** receives **notification** of **certification** of the **metering installation**.

(4) If the **network** owner has not received **notification** under subclause (3) within 5 **business days** of livening a new **point of connection** set out in subclause (2)(a)(ii), it must, within 1 further **business day**, disconnect the new **point of connection**.

10.29 Livening point of connection to grid

The **grid owner** must not liven, or permit the livening of, a **point of connection** to the **grid** until it has—

(a) ensured the process described in clause 10.25 has been carried out; and

(b) provided, not less than 20 **business days** before the proposed livening date or any proposed change to the **point of connection**, details in the **prescribed form** to, and request authorisation from, the **market administrator**; and

(c) received **notification** of the authorisation requested under paragraph (b) from the **market administrator**.

10.30 Livening NSP that is not point of connection to grid

The **network** owner initiating the **NSP** must not liven, or permit the livening of, an **NSP** that is not a **point of connection** to the **grid**, until it has **notified** the **reconciliation manager**—

(a) that a **certified metering installation** is in place; and

(b) of the **participant identifier** of the **metering equipment provider**; and

(c) of the **certification** expiry date of the **metering installation**.

10.31 Livening ICP that is not NSP

Prior to livening, or permitting the livening of, an **ICP** that is not an **NSP**—

(a) the **distributor** must ensure that—

(i) a **reconciliation participant** is recorded in the **registry** as being the **reconciliation participant** for that **ICP** in accordance with **[**Schedule J3 of Part J**]**; and

(ii) a **metering equipment provider** is recorded in the **registry** in accordance with clause 10.22(2)(a), as being the **metering equipment provider** for the **metering installations** at that **ICP**; and

(b) the **trader** for the **ICP** must—

(i) record the **metering equipment provider's** identifier in the **registry** against that **ICP**; and

(ii) ensure all the **metering installations** at that **ICP** are **certified** under clause 10.36.

General metering installation requirements

10.32 Installation of metering installations

(1) A **metering equipment provider** must, for a **metering installation** for which it is to become responsible, if a **metering installation** has not previously been present at a proposed **point of connection**—

(a) consult with and take all practicable steps and use its best endeavours to agree with the **distributor** and the **retailer** for the proposed **point of connection**, before the design of the **metering installation**, on the **metering installation's**—

(i) required functionality; and

(ii) terms of use; and

(iii) required interface format; and

(iv) integration of the ripple receiver to the **meter**; and

(v) functionality for controllable load; and

(b) consult with the **distributor** and the **retailer** for the proposed **point of connection**, before the design of the **metering installation**, on the **metering installation's** potential future usage.

(2) If the **participants** referred to in subclause (1) cannot agree, within 60 **business days** of the **distributor** first receiving **notification** of the proposed new **metering installation**, on the **metering installation's** requirements set out in subclause (1)(a)—

(a) any affected **participant** may **notify** the **Authority**—

(iii) that agreement has not been reached; and

(iv) of the identity of all affected **participants**; and

(b) the **Authority** may, at its discretion, determine the **metering installation** requirements; and

(c) the **Authority** must, if it determines the metering installation requirements under paragraph (b), **notify** all of the affected participants of any determination it has made.

10.33 Physical location of metering installations

(1) A **participant** responsible for providing a category 1 or 2 **metering installation** must ensure that the **metering installation** is located as physically close to a **point of connection** as practicable.

(2) A **participant** responsible for providing a category 3, 4 or 5 **metering installation** must ensure that the **metering installation** is located at a **point of connection**.

(3) Despite subclause (2), if a **participant** is responsible for providing a category 3, 4 or 5 **metering installation** at a **point of connection** and it is not practicable to locate the **metering installation** at the **point of connection**, the **participant**—

(a) may calculate the quantity of **electricity** conveyed through the **point of connection** using a **loss compensation** process approved by the **certifying approved test house**; and

(b) if a calculation is carried out under paragraph (a), must record in the **metering installation certification report**—

(i) the details of the calculation; and

(ii) any assumption used; and

(iii) any measurement used. **[Rule 5.2 of Part D]**

10.34 Trader contract with metering equipment provider

A proposed **trader** at an **ICP** must, before accepting responsibility under Part [E] to be the **trader** for an **ICP**, contract with a **metering equipment provider**,—

(a) for the **trader** to provide the **metering equipment provider** with access to the **metering installation** at the **ICP** and the premises at which it is situated; and

(b) for the **metering equipment provider** to provide the **trader** with access to the **metering data**, in accordance with authorisation from the **consumer**, from the **metering installation** at the **ICP**.

Active and reactive energy metering

10.35 Active and reactive measuring and recording requirements

(1) A **metering equipment provider** must ensure that all category 2 to 5 **half-hour metering installations certified** or **recertified** after the date on which this Part comes into force measure and record, in accordance with all other requirements of this Part,—

(a) if the measuring and recording requirement is for consumption only, import **active energy**, and import and export **reactive energy**; or

(b) if the measuring and recording requirement is for consumption and generation, or generation only, full import and export **active energy** and **reactive energy**.

(2) Despite subclause (1)(a)—

(a) each **metering installation**, for a **point of connection** to the **grid**, **certified** or **recertified** after the date on which this Part comes into force, must measure and record full import and export **active energy** and **reactive energy**; and

(b) the category of each local service **metering installation** for **grid** substation **electricity** used in and by the substation must be determined in accordance with Table 1 of Schedule 10.1.

Certification of metering installations

10.36 Certification of metering installations

A **metering equipment provider** must, at its cost,—

(a) obtain and maintain **certification** in accordance with all applicable obligations in this Part—

(i) Schedule 10.7 for each **metering installation** for which it is responsible; and

(ii) Schedule 10.8 for each metering component in the **metering installation** under subparagraph (i).**[Rule 8 of Part D]**

(b) ensure that any tests required for **certification** under paragraph (a) are conducted in accordance with all of its obligations in this Code including the obligations under Schedule 10.7 or 10.8 (whichever is applicable) by an **approved test house** contracted by the **metering equipment provider**. **[Rule 10.1 of Part D]**

Metering infrastructure

10.37 Responsibility for metering infrastructure integration

A **metering equipment provider** must ensure that—

(a) for each **metering installation** for which it is responsible, an appropriately designed **metering infrastructure** is provided; and

(b) in each **metering installation** for which it is responsible,—

(i) each **metering component** is compatible with, and will not cause any interference with the operation of, each other **metering component** in the **metering installation**; and

(ii) collectively, all **metering components** integrate to provide a functioning system; and

(c) each **metering installation** for which it is responsible is correctly and accurately integrated within the associated **metering infrastructure**.

Approved test houses

10.38 General requirements for approval [rule 5.1 COP D2]

(1) A person wishing to be approved as an **approved test house**, or an **approved test house** wishing to renew its approval, must apply, to the **Authority**—

(a) at least 2 months before the intended effective date of the approval or renewal; and

(b) in writing; and

(c) in the **prescribed form**; and

(d) in accordance with Schedule 10.3.

(2) A person making an application under subclause (1) must satisfy the **Authority** (providing, where appropriate, suitable evidence) that it—

(a) has the facilities and procedures to reliably meet, for the requested term of the approval, the minimum requirements of the [**regulations**] and this Code for the class or classes of **approved test house** for which it is seeking approval; and

(b) has had an **audit** under Schedule 10.3; and

(c) is a fit and proper person for approval.

10.39 Requirements applying to approved test houses when carrying out activities under this Part

An **approved test house** must, when carrying out activities under this Part,—

(a) only carry out activities for which it has been approved by the **Authority**; and

(b) exercise a degree of skill, diligence, prudence, foresight and economic management, taking into account the technological complexity of the **meters** and **metering installations** being tested —

(i) determined by reference to good international practice; and

(ii) that would reasonably be expected from a skilled and experienced **approved test house** engaged in the management of a **meter calibrating**, testing and **certifying** organisation under conditions comparable to those applicable to the relevant class of **approved test house**; and

(iii) that is compliant with all applicable safety, employment, environmental, and other laws; and

(c) in any discretion given to it under this Part—

(i) take into account the particular circumstances of the relevant instance; and

(ii) record its reasons; and

(iii) act professionally.

10.40 Functions and ongoing obligations

An **approved test house** must comply with all of its obligations in this Code including the obligations under Schedules 10.4, 10.7 and 10.8.

Inaccurate and defective metering installations

10.41 ***Inaccurate and defective metering installations to be investigated***

(1) **A metering equipment provider** must if it becomes aware (other than by receiving **notification** under subclause (2)) that a **metering installation** for which it is responsible is, or could be, inaccurate or defective as soon as reasonably practicable and no later than 3 **business days** after becoming aware—

(a) investigate the **metering installation**, and the event or circumstances; and

(b) provide to all affected **participants** a report that—

(i) summarises the **metering equipment provider's** investigation; and

(ii) the result of the investigation; and

(iii) confirms whether the **metering installation** is inaccurate or defective.

(2) A **participant** who becomes aware of an event or circumstance that reasonably leads it to believe there is, or could be, an inaccurate or defective **metering installation**, must—

(a) **notify** the relevant **metering equipment provider**, as soon as reasonably practicable, and no later than 3 **business days** after it became aware of such event or circumstance; and

(b) include, with that **notification**, all relevant details.

(3) If a **metering equipment provider** must, if it receives **notification** under subclause (2), as soon as reasonably practicable and no later than 3 **business days** after receiving the **notification**,—

(a) investigate the **metering installation**, and the event or circumstances; and

(b) provide to all affected **participants** a report that—

(i) summarises the **metering equipment provider's** investigation; and

(ii) the result of the investigation; and

(iii) confirms whether the **metering installation** is inaccurate or defective.

(4) A **metering equipment provider** must, if the results of the investigation under subclauses (1) and (3) lead it to believe that there is an inaccuracy or defect, at its cost,—

(a) ensure that an **approved test house** carries out the testing required, and investigates the suspected defect or inaccuracy; and

(b) prepare a statement of situation in accordance with clause 10.43(1).

10.42 Participant may require further testing

(1) A **participant**, who receives a copy of a report under clauses 10.41(1)(b) or 10.41(2)(b) that confirms that the **metering installation** is not inaccurate or defective, but who nevertheless believes that the **metering installation** is inaccurate or defective, may require further testing of the **metering installation** by—

(a) **notifying** the **metering equipment provider**, within 5 **business days** of receiving the report, of—

(i) its reasons for requiring further testing; and

(ii) the scope of the further testing required; and

(b) use its best endeavours to agree with the **metering equipment provider** on an **approved test house** that will carry out the testing.

(2) If the **metering equipment provider** and the **participant** requesting the further test cannot, within 5 **business days** of the **metering equipment**

provider receiving the notification under subclause (1)(a), agree on an **approved test house**, either **participant** may **notify** the **market administrator** who will appoint an **approved test house** to carry out the testing. [**Rule 10.2 of part D]**

(3) A **metering equipment provider** must, within 3 **business days** of agreement or appointment of the **approved test house** under subclause (1)(b) or subclause (2), ensure that the **approved test house**—

(a) carries out the further testing required; and

(b) investigates the suspected inaccuracy or defect; and

(c) prepares a statement of situation in accordance with clause 10.43(1).

(4) The **approved test house** must, within 10 **business days** after being contracted under subclause (3), ensure that it has carried out the activities under subclause (3).

(5) The **approved test house's** costs under subclause (3) must be borne by—

(a) the **metering equipment provider**, if the test demonstrates that the **metering installation** is not performing within the maximum permitted error for the relevant category set out in Table 1 of Schedule 10.1; or

(b) the **participant** who required that the **metering installation** be further tested, if the test demonstrates that the **metering installation** is performing within the maximum permitted error for the relevant category set out in Table 1 of Schedule 10.1. **[Rule 9.2 of Part D]**

10.43 Statement of situation

(1) A statement of situation required under clause 10.41(4)(b) or clause 10.42(3)(c) must include—

(a) details of the tests carried out; and

(b) results of the tests carried out; and

(c) full details of what was found; and

(d) the cause of the inaccuracy or defect (if known); and

(e) a conclusion of whether or not the **metering installation** performed within the maximum permitted error for the relevant category set out in Table 1 of Schedule 10.1; and

(f) an assessment of the risk to **raw meter data**; and

(g) the remedial action proposed; and

(h) any correction factors to apply to **raw meter data** to ensure that the **metering installation** results are accurate to within the required maximum permitted error set out in Table 1 of Schedule 10.1.

(2) A **metering equipment provider** must, if it has arranged for an **approved test house** to prepare a statement of situation under clause 10.41(4)(b) or clause 10.42(3)(c), provide the relevant affected **participants** and the **market administrator** with a copy of the statement of situation within 3 **business days** of receiving the statement of situation.

10.44 Correction of defects in a metering installation

(1) An **approved test house** must, when taking action to remedy an inaccuracy or defect within a **metering installation**, ensure that each **metering component** of that **metering installation** is handled and stored in a manner that enables further investigation, if the **metering equipment provider** requires such investigation.

(2) A **participant** may, within 40 **business days** of receiving a statement of situation under clause 10.43(2), **notify** the **metering equipment provider** of any questions it has in relation to the corrections needed to the **raw meter data**.

(3) A **metering equipment provider** must, within 10 **business days** of receiving a **notification** under subclause (2), respond in detail to the **participant's** questions. **[Rule 10 of COP D3]**

10.45 Failure of recertification tests or change to compensation factors

(1) This clause applies if—

(a) a **metering installation** fails its **recertification** tests; or

(b) an **approved test house** determines in a **metering installation's certification report** that there must be a change to the **compensation factor** applied—

(i) in a **metering installation**; or

(ii) to data from a **metering installation**.

(2) If this clause applies, the **approved test house** must **notify** the **metering equipment provider** under clause 10.41(2) and the procedure in clauses 10.41 to 10.44 will apply.

Dispute resolution

10.46 Dispute resolution

(1) A **participant** must, in good faith, use all reasonable endeavours to amicably resolve any dispute with any other person about a matter dealt with in this Part, within a reasonable period.

(2) A **participant** may refer any dispute, or complaint of a breach of this Code, to the **Authority** and then to the **Rulings Panel**, in accordance with Part 2 of the **[**Act**]**.

(3) The existence of a dispute does not excuse a **participant** from complying with this Code.

Transitional provisions

All references to the Electricity Governance Rules 2003 will be updated when the Electricity Industry Participation Code comes into force.

10.47 Transitional rules

(1) In this clause—

(a) **Part [1] definitions** means the defined terms in Part [1] [that were introduced under this Part]; and

(b) **Part A** means Part [A] of the [Electricity Governance Rules 2003] that were effective immediately before this Part comes into force; and

(c) **Part [D]** means Part [D] of the [Electricity Governance Rules] that was effective immediately before this Part comes into force; and

(d) **metering installation** includes anything defined in the term metering installation in Part [A].

(2) The intent of this clause is—

(a) as far as practicable, to preserve the effect of Part [D], up to the date on which this Part comes into force; and

(b) to clarify that a breach of Part [D] will subsist as a breach under this Part, despite the coming into force of this Part; and

(c) to clarify that disputes and complaints about breaches under Part [D] will be resolved under this Part, and to provide for the procedure to facilitate that that will happen; and

(d) to clarify that certain exemptions, authorisations and Code of Practice D5 variations under Part [D] will remain in force in accordance with their terms, as if they had been under this Part; and

(e) to clarify the effect of certain contractual arrangements of the coming into force of this Part 10; and

(f) to clarify the effect of a **participant** being in compliance with certain of the rules in Part [D], after the coming into force of this Part.

(3) In this clause, the Part [A] definitions have the meanings given to them in Part [A].

(4) A **metering installation** and any part of a **metering installation** that was **certified** under Part [D], as at the date on which this Part comes into force (including, without limitation, a category 1 **metering installation** that had interim **certification** under Part [D], which will remain **certified** until 1 April 2015), remains **certified** under this Part in accordance with the terms of the relevant **certification**.

(5) An **audit** that was carried out under Part [D] by an **auditor**, that was completed under Part [D], as at the date on which this Part comes into force, continues to have the effect and status of an **audit** under this Part.

(6) The following persons **certified** and approved by the **Commission**, under Part D, as at the date on which this Part comes into force, remain, for all purposes of this Part, **certified** and approved by the **Authority**, in accordance with the terms and scope of the relevant **certification** and approval as if such certification and approval had been issued under this Part:

(a) an **auditor**; and

(b) an **approved test house**.

(7) The following continue in effect despite anything else in, or coming into force of, this Part, to the extent that they relate to or concern the same, or similar, obligations under this Part, and will apply to a **participant's** obligations under or compliance with, the relevant obligation under this Part:

(a) an approval for an alternative quality management system previously issued in accordance with rules 4.2 and 6.3 of Code of Practice D2:

(b) a certificate for an alternative standard previously issued under rule 3.2 of Code of Practice D2 and rule 2 of Code of Practice D2 and D3:

(c) a variation issued by the **market administrator** under rule 3.5 or 4.3 of Code of Practice D3:

(d) a dispensation issued by the **market administrator** under rule 7.4 of Code of Practice D3:

(e) an alternative standard **certified** under Appendix 1 of Code of Practice D3 and rule 2 of Code of Practice D4:

(f) a variation under Code of Practice D5:

(g) a statistical sampling process under rule 5.3 of Code of Practice D3:

(h) an exemption under section **[**13**]** of the Act.

(8) An **approved test house** must, if it has **certified** a **metering installation** under paragraph (7)(e), in accordance with Part [D], within 3 **business days** of the date on which this Part comes into force, **notify** the **Authority** of that alternative standard.

(9) The following continue in effect, despite anything else in, or the coming into force of, this Part, to the extent that they relate to or concern the same, or similar, obligations under this Part, and will apply to a **participant's** obligations under or compliance with, the relevant obligation under this Part:

(a) calibration intervals referred to in rule 6.1 of Code of Practice D2; and

(b) the maximum intervals between inspections referred to in rule 7.1 of Code of Practice D3, provided that if the date by which the next inspection would, under this Part, be later, then such later date will apply.

(10) Despite anything else in, or the coming into force of, this Part—

(a) rule 4 and rules 12 to 15 of Part D continue to apply insofar as they relate to all **raw meter data interrogated** and processed under Part [D], on which **submission information** is based that is still subject to the reconciliation process under Part **[J]**, until the reconciliation process for the **submission information** has been concluded in accordance with Part [J]; and

(b) rule 7.3 of Part D continues to apply in relation to all **raw meter data** recorded before the date on which this Part comes into force; and

(c) an **approved test house's** obligation under rule 5.9 of Code of Practice D2 and Rule 4.8 of Code of Practice D3 of Part D will continue in accordance with their terms in relation to all records created before the date on which this Part comes into force.

(11) An assignment or contract (including an agency agreement) previously entered into under rules 2.2, 3 and 6 of Part D in relation to a **participant's** responsibilities under Part D ceases to be effective from the date on which this Part comes into force, but this will be without prejudice to any existing disputes under such assignments or contracts, that must be resolved between the relevant persons concerned in accordance with the assignment or contract as if it remained effective.

(12) Despite anything else in, or the coming into force of, this Part—

(a) any dispute concerning a **metering installation**, **metering data**, **raw meter data**, and all related matters that were in existence immediately before the date on which this Part comes into force,—

(i) remain in existence; and

(ii) must be resolved under clause 10.47; and

(b) any breaches or alleged breaches of Part D, and investigations of rule breaches or alleged rule breaches under Part D, are unaffected and must be concluded as if the relevant provisions alleged to have been breached, under Part D, and the relevant Part D definitions remain in force; and

(c) any rule breaches or alleged rule breaches described in paragraph (b) will be dealt with by the **Authority** and the **Rulings Panel** under clause [10.47] and the **Act**.

(13) Despite anything else in, or the coming into force of, this Part, subclause (14) applies to a **participant** who had been responsible under Part D for—

(a) measuring the quantity of **electricity** at any **metering installation** before the date of which this Part came into effect; or

(b) estimating the quantity of **unmetered load**.

(14) A **participant** under subclause (13), who is responsible for **volume information** which has not, at the date on which this Part comes into force, been submitted to the **reconciliation manager** in accordance with Part **[J]** must complete the submission of the **volume information** to the

reconciliation manager in accordance with Part D, as if that Part remained effective.

(15) Despite anything else in, or the coming into force of, this Part, a **participant** who is responsible for a **metering installation** under Part D, at the date on which this Part comes into force must remain in compliance with—

(a) rules 7.2 and 7.3 of Part D, in respect of **raw meter data** kept before the date on which this Part comes into force, and will not be in breach of any of the corresponding obligations in this Part, provided that the **participant** keeps the **raw meter data** in compliance with rule 7.2 and 7.3 of Part D; and

(b) rule 8 of Code of Practice D3, in respect of records kept before the date on which this Part comes into force, and will not be in breach of any of the corresponding obligations in this Part, provided that the **participant** keeps the records in compliance with rule 8 of Code of Practice D3.

(16) The following procedures commenced, but not completed, at the date on which this Part comes into force are not valid under this Part:

(a) **metering installation** tests; and

(b) **audits** in respect of an **approved test house**.

(17) The obligations of a **metering equipment provider** expressed in this Part as applying in relation to arranging **certification of** a **metering installation** after the date on which this Part comes into force do not apply to a **metering installation certified** under this clause.

Schedule 10.1

Tables

Table 1: Metering installation characteristics and associated requirements

Defining Characteristics				Associated Requirements of active energy metering						
Metering Installation category	Voltage (V)	Current (I)	Measuring Transformers	Half-Hour Metering	Fully calibrated Metering Installation		Selected Component Metering Installation		Metering installation certification and inspection	
					Maximum Permitted Error	Maximum Site Uncertainty	IEC Class for component		Maximum Metering Installation Certification Validity Period	Inspection Requirement
							Meter	CT		
1	V < 1kV	I ≤ 160A	None	No	± 2.5%	0.6%	2	N/A	15 yrs	7.5 yrs ± 6 mths
2	V < 1kV	I ≤ 500A	CT	No	± 2.5%	0.6%	2	1	15 yrs	7.5 yrs ± 6 mths
3	V < 1kV	500A < I ≤ 1200A	CT	Yes	± 1.25%	0.3%	1	0.5	10 yrs	5 yrs ± 3 mths
	1kV ≤ V ≤ 11kV	I ≤ 100A	VT & CT				N/A	N/A		
	11kV < V ≤ 22kV	I ≤ 50A					N/A	N/A		
4	V < 1kV	I > 1200A	CT	Yes	± 1.25%	0.3%	N/A	N/A	5 yrs	2.5 yr ± 3 mths
	1kV ≤ V ≤ 6.6kV	100A < I ≤ 400A	VT & CT							
	6.6kV < V ≤ 11kV	100A < I ≤ 200A								
	11kV < V ≤ 22kV	50A < I ≤ 100A								
5	1kV ≤ V ≤ 6.6kV	I > 400A	VT & CT	Yes	± 0.75%	0.2%	N/A	N/A	3 yrs	1.5 yr ± 1 mth
	6.6kV < V ≤ 11kV	I > 200A								
	V > 11kV	I > 100A								

Table 2: Selected component certification minimum test requirement table

	Event	Design	Measuring transformer	Meter	Primary Injection to Meter	Working standard at prevailing load	Data storage device	Software security and communication equipment	Control device	Wiring check	Component certification check	Multiplier and compensation checks	Raw meter data output	Supply polarity	Register advance	Installation or component configuration
Meter installation	Initial certification	M				M		M		M	M	M	M	M	M	M
	Recertification	M				M		M		M	M	M	M	M	M	M
Component change or recertification	(a) Meter Change including internal data loggers	M		M		M	M	M		M		M	M	M	M	M
	(b) Metrology change either on site or remote.	M		M			M	M				M	M		M	M
	(c) External data logger change	M					M	M		M		M	M		M	M
	(d) Measuring transformer change or ratio change	M	M			M				M		M	M	M	M	
	(e) Control device change	M					MI		M	M			M			M
	(f) Additional Equipment (eg Wiring)	M				M				M			M	M	M	

Key: M = Mandatory, T = Mandatory where test method and test equipment permit, MI = mandatory where the control device is integral with the meter.

Table 3: Fully calibrated certification minimum test requirement table

Event		Design	Measuring transformer	Meter	Primary Injection to Meter	Working standard at prevailing load	Data storage device	Software security and communication equipment	Control device	Wiring check	Component certification check	Multiplier and compensation checks	Raw meter data output	Supply polarity	Register advance	Installation or component configuration
Meter installation	Initial certification	M	M	M	T	M	M	M	M	M	M	M	M	M	M	M
	Recertification	M		M		M	M	M	M	M	M	M	M	M	M	M
Component change or recertification	(a) Meter Change including internal data storage device	M		M	T	M	M	M		M		M	M	M	M	M
	(b) Metrology change either on site or remote.	M		M			M	M				M	M		M	M
	(c) External data storage device change	M			T		M	M		M		M	M		M	M
	(d) Measuring transformer change or ratio change	M	M		T	M				M		M	M	M	M	
	(e) Control device change	M					MI		M	M			M			M
	(f) Additional Equipment (eg Wiring)	M			T	M				M			M	M	M	

Key: M = Mandatory, T = Mandatory where test method and test equipment permit, MI = mandatory where the control device is integral with the meter.

Table 4: Standards for metering components

Meter and data logger standards	**Standards**
Electricity metering equipment (AC) – Part 1: General requirements, tests and test conditions (class 2, 1, and 0.5)	EN 50470-1
Electricity metering equipment (AC) – Part 2: Particular requirements – Electromechanical meters for active energy (class 2 and 1)	EN 50470-2
Electricity metering equipment (AC) – Part 3: Particular requirements – Static meters for active energy (class 2, 1 and 0.5)	EN 50470-3
Electricity metering equipment (AC) – Particular requirements – Part 11: Electromechanical meters for active energy (classes 0.5, 1 and 2)	IEC 62053-11
Electricity metering equipment (AC) – Particular requirements – Part 21: Static meters for active energy (classes 1 and 2)	IEC 62053-21
Electricity metering equipment (AC) – Particular requirements – Part 22: Static meters for active energy (classes 0.2 S and 0.5 S)	IEC 62053-22
Electricity metering equipment (AC) – Particular requirements – Part 23: Static meters for reactive energy (classes 2 and 3)	IEC 62053-23
Electricity metering equipment (AC) – Particular requirements – Part 61: Power consumption and voltage requirements	IEC 62053-61
Electricity metering equipment (AC) – General requirements, tests and test conditions – Part 11: Metering equipment	IEC 62052-11
Measuring transformer standards	
Instrument transformers – Part 1: Current transformers	IEC 60044-1
Instrument transformers – Part 2: Inductive voltage transformers	IEC 60044-2
Instrument transformers – Part 3: Combined transformers	IEC 60044-3
Instrument transformers – Part 5: Capacitor voltage transformers	IEC 60044-5
Coupling capacitors and capacitor dividers	IEC 60358
Instrument transformers – Part 7: Electronic voltage transformers	IEC 60044-7
Instrument transformers – Part 8: Electronic current transformers	IEC 60044-8
Other standards	
Electricity metering equipment (AC) – Tariff and load control – Part 11: Particular requirements for electronic ripple control receivers	IEC 62054-11
Electricity metering equipment (AC) – Tariff and load control – Part 11: Particular requirements for time switches	IEC 62054-21

Table 5: Standards of accuracy and overall uncertainty for active and reactive meter calibration and testing

Value of Current %	Power Factor	Maximum Overall Uncertainty %
Class of meter 2.0 and 2.0S		
5 to 120	1	±0.4
10 to 120	0.5 lagging	±0.6
10 to 120	0.8 leading	±0.6
Class of meter 1.0 and 1.0S		
5 to 120	1	±0.2
10 to 120	0.5 lagging	±0.25
10 to 120	0.8 leading	±0.25
Class of meter 0.5 and 0.5S		
5 to 120	1	±0.1
10 to 120	0.5 lagging	±0.12
10 to 120	0.8 leading	±0.12
Class of meter 0.2S		
5 to 120	1	±0.06
10 to 120	0.5 lagging	±0.09
10 to 120	0.8 leading	±0.09
Class of meter 3.0		
20 to 120	Zero	±1.0
20 to 120	0.8 leading	±1.5
20 to 120	0.8 lagging	±1.5
Class of meter 2.0		
20 to 120	Zero	±0.5
20 to 120	0.8 leading	±1.0
20 to 120	0.8 lagging	±1.0

Table 6: Voltage and current balance

Polyphase **Meters**	Class of **Meter**			
	0.2 & 0.5	1.0	2.0	3.0
Each of the voltages between line and neutral or between any two lines will not differ from the average corresponding voltage by more than:	±0.1%	±1.0%	±1.0%	±1.0%
Each of the currents in the conductors will not differ from the average current by more than:	±1.0%	±2.0%	±2.0%	±2.0%
The phase displacements of each of these currents from the corresponding line-to-neutral voltage, irrespective of the power factor, will not differ from each other by more than:	2°	2°	2°	2°

Table 7: Required sample size for category 1 metering installation inspections

Number of ICPs identified	Sample size
1	1
2-8	2
9-15	3
16-25	5
26-50	8
51-90	13
91-150	20
151-280	32
281-500	50
501-1200	80
1201-3200	125
3201-10,000	200
10,001-35,000	315
35,001-150,000	500
150,000+	800

Schedule 10.2

Authority called audits

1 Authority's right to carry out audits

(1) If the **Authority**, or an affected **participant**, at any time reasonably considers, in good faith, that a **relevant participant** may no longer comply with this Code—

(a) the **Authority** may carry out an **audit** to address such matters as the **Authority** may reasonably require; or

(b) an affected **participant** may request that the **Authority** carries out, or appoints an **auditor** to carry out, an **audit**.

(2) A **relevant participant** must, within any reasonable time specified by the **Authority** or an **auditor** appointed by the **Authority**, provide, at no charge, to the **Authority** or the **auditor**—

(a) full access to all relevant facilities, personnel, records and manuals at any time within normal working hours; and

(b) any additional information that the **Authority** or **auditor** reasonably considers is necessary. **[Rule 7.5.1 of COP D2]**

2 Payment of audit costs

If an **audit** carried out under clause 1 establishes, to the reasonable satisfaction of the **Authority**, that the **relevant participant**—

(a) is in breach of one or more of the requirements of this Code—

(i) the **Authority** must **notify** the **relevant participant** that it must pay for the **audit**; and

(ii) the **relevant participant** must pay the costs within 10 **business days** of receiving the **notification**; or **[Rule 7.6.1 of COP D2]**

(b) is compliant with the relevant requirements of this Code—

(i) the **Authority** must **notify** the requesting **participant** that it must pay for the **audit**; and

(ii) the requesting **participant** must pay the costs within 10 **business days** of receiving the **notification**. **[Rule 7.6.2 of COP D2]**

Schedule 10.3

Approved test houses—approval and renewal of approval

1 Audits for approval

A person wishing to be approved initially as an **approved test house** must ensure that an **audit** is carried out under clause 3.

2 Applications for approval and re-approval

(1) A person wishing to be approved as an **approved test house**, or an **approved test house** wishing to renew its approval, must apply to the **Authority** at least 2 months before the intended effective date of the approval or renewal in writing to the **Authority** in the **prescribed form** including in its application—

(a) its most recent **audit** report carried out under clause 3, together with its responses to the report; and

(b) a copy of any quality management certificates it holds; and

(c) a copy of its most recent quality management audit report.

(2) An applicant under subclause (1) must pay, in accordance with the terms of the applicable contract, for the costs of an **audit** provided for in this Schedule.

(3) An applicant under subclause (1) must also—

(a) provide promptly such other information or documentation as the **Authority** may reasonably request; and

(b) the class of **approved test house** for which it is seeking approval; and

(c) the functions under clauses 4(3) or 5(3) for which it is seeking approval.

(4) The **Authority**, within 2 months of receiving an application under subclause (1), must **notify** the applicant of—**[Rule 7.2 of COP D2]**

(a) the approval of the application made in accordance with subclause (1), if the applicant satisfies the **Authority** that it has met the requirements set out in clause 10.38; or

(b) the declination of an application, providing reasons, if the **Authority** considers that—

(i) the information supplied by the applicant is incomplete or unsatisfactory; or

(ii) the applicant otherwise fails to demonstrate that it would be, and would remain for the period for which the renewal is being

requested, compliant with the requirements set out in clause 10.38.

(5) If an application is approved, the **Authority** must issue a certificate of approval specifying the—

(a) period of the term, which must not exceed 12 calendar months from the date of approval; and

(b) date of the next scheduled **audit**, which must be at least 3 months, and no more than 36 months, from the date of approval.

(6) Any approval is effective from the date specified on the certificate referred to in subclause (5).

3 Audits

(1) An applicant under clause 2(1) must ensure that an **auditor** undertaking an **audit** complies with the following requirements:

(a) the **audit** report must be in the **prescribed form**; and

(b) the **auditor** must send to the applicant, a draft of the **audit** report setting out the provisional findings of the **audit**; and

(c) the **auditor** must give the applicant a reasonable opportunity to comment on the draft of the **audit** report; and

(d) the **auditor** must consider any comments it receives from the applicant about the draft of the **audit** report; and

(e) the **auditor** must produce a final **audit** report and provide the report to the applicant.

(2) The applicant under clause 2(1) must ensure that the final **audit** report—

(a) specifies any conditions that the **auditor** considers the applicant must satisfy to comply with this Code, and any action that the applicant has taken in respect of those conditions; and

(b) includes—

(i) a list of all contractors engaged by the applicant; and

(ii) details of the obligations that each contractor performs; and

(c) includes a summary that specifies—

(i) the date on which the **audit** report completed; and

(ii) the name of the applicant; and

(iii) the scope of the **audit**; and

(iv) whether or not the **audit** established that the applicant's processes and procedures comply with this Code; and

(v) the name of the **auditor**.

4 Approval of class A approved test houses

(1) A **class A approved test house** must, as part of its application to the **Authority**,—

(a) confirm that it holds and complies with AS/NZS ISO 17025 accreditation, for at least the requested term of the approval; and

(b) in regard to the scope of AS/NZS ISO 17025 accreditation—

(i) confirm that such scope covers the activities that the **approved test house** undertakes; and

(ii) confirm that it complies with any requirements of its ISO accreditation during the requested term of approval; and

(c) **notify** the **Authority** if the scope of its ISO accreditation is reduced during its term of approval, prior to the date on which the reduction is to become effective; and

(d) if it proposes to carry out field work, be accredited to the relevant AS/NZS ISO 9001:2000.

(2) The **Authority** may approve a **class A approved test house** to carry out one or more of the following functions: **[Rule 3.1 COP D2]**

(a) **calibration** of **working standards**, **metering components** and **metering installations** and issuing of **calibration** reports:

(b) installation of **metering components**:

(c) **certification** of all categories of **metering installations** under the provisions of this Code and issuing of **certification reports**:

(d) **calibration** of **metering components** on site, if the **approved test house** considers site conditions are appropriate, provided that it follows appropriate procedures under clause 6 of Schedule 10.4; and

(e) investigation of **metering installations** and production of statement of situation. **[Rule 4.1.3 COP D2]**

(3) A **class A approved test house** may carry out one or more of the functions listed in subclause (2) to varying degrees, subject to—

(a) the current scope of its approval under subclause (2); and

(b) any limitations that may be specified in the **class A approved test house's** AS/NZS ISO 17025 or relevant AS/NZS 9001 accreditations.

(4) The **Authority** may withhold approval as a **class A approved test house** despite the fact that the necessary ISO accreditation has already been obtained by that person or any other pre-requisite to approval has been obtained or satisfied. **[Rule 3.2 COP D2]**

5 Approval of class B approved test houses

(1) A **class B approved test house** must, as part of its application to the **Authority**,—

(a) confirm that it holds and complies with AS/NZS ISO 9001:2008 for at least the requested term of the approval; and

(b) in regard to the scope of AS/NZS ISO 9001:2008 accreditation, confirm that such scope covers the activities that the **approved test house** undertakes; and

(c) **notify** the **Authority** if the scope of its ISO accreditation is reduced during its term of approval, prior to the date on which the reduction is to become effective; and

(c) confirm that it will develop and at all time maintain a conflict of interest policy in compliance with ISO 17025.

(2) The **Authority** may approve a **class B approved test house** to carry out one or more of the following functions:

(a) **calibration** of class 0.5 **meters**, class 1 **meters** and class 2 **meters**, and class 0.5 current transformers for use in selected component **metering installations** only, provided that the **calibrations** are carried out under their approved quality **certification** and included within the **approved test house audit** for approval:

(b) issuing of resulting **calibration reports**: **[Rule 4.1.1 COP D2]**

(c) installation of **metering components**:

(d) **certification**, using the selected component method under clause 8 of Schedule 10.7 of one or more of—

(i) category 1 **metering installations** under the provisions of this Code:

(ii) category 2 **metering installations**:

(iii) category 3 **metering installations** with a primary voltage of less than 1kV:

(e) **calibration** of **metering components** on site, if the **approved test house**—

(i) considers site conditions are appropriate; and

(ii) follows appropriate procedures under clause 6 of Schedule 10.4. **[Rule 4.1.3 COP D2]**

(3) The **Authority** may withhold approval as a **class B approved test house** despite the fact that the necessary ISO accreditation has already been obtained by that person or any other pre-requisite to approval has been obtained or satisfied. **[Rule 3.2 COP D2]**

6 Expiry and cancellation of approval

(1) If the approval of an **approved test house** expires and is not renewed—

(a) the **Authority** must—

(i) **notify** all **metering equipment providers** of the removal of the **approved test house** from the register; and

(ii) specify in the **notification** the date on which the expiry of the **approved test house's approval** takes effect; and

(b) the **approved test house** must return its certificate of approval to the **Authority**.

(2) If the **Authority** believes that the **approved test house** is or was in breach of this Part prior to the scheduled expiry date, and that as a result, a **metering installation** may have been inappropriately **certified**—

(a) the **Authority** may cancel the approval of the **approved test house** with immediate effect by **notifying** the **approved test house**; and

(b) the **Authority** must—

(i) **notify** all **metering equipment providers** that the **approved test house's** approval has been cancelled; and

(ii) **notify** all **metering equipment providers** of the date from which the **metering installation** may have been inappropriately **certified**; and

(ii) update or remove the **approved test house** details from the register.

(c) a **metering equipment provider notified** under paragraph (b) must treat all **metering installations** potentially affected by the cancellation of the **approved test house approval** as being defective from the date **notified** under paragraph (b) and follow the procedures set out in clauses 10.41 to 10.45.**[Rule 7.7 of COP D2]**

7 Changes that affect approval

(1) If an **approved test house** intends to make a change to any of its facilities, processes or procedures that the **approved test house** considers is material, the **approved test house** must, at least 5 **business days** before the change is to take place—

(a) **notify** the **Authority** of all relevant details of the change; and

(b) submit to the **Authority** an **audit** report confirming, amongst other things, that, after the change has come into effect, the **approved test house** will continue to meet the requirements under clause 10.38(2)(a).

(2) An **approved test house** under subclause (1) will have its approval cancelled—

(a) from the date of the change under subclause (1), if the **approved test house** fails to give the **notification** required under subclause (1)(a); or

(b) from the date that the **Authority notifies** the **approved test house** that the **Authority** is not satisfied that the **approved test house** will continue to meet the requirements in paragraph 10.38(2)(a) after the change has come into effect. **[Rule 7.3 of COPD2]**

8 Register of approved test houses

The **Authority** must, keep, maintain and **publish** a register of **approved test houses**.

Schedule 10.4

Approved test house ongoing functions and obligations

1 Accommodation and environment

(1) An **approved test house** must—

(a) maintain a list of personnel who are authorised to access and use its laboratory and storage facilities; and

(b) restrict access to its laboratory and storage facilities to—

(i) the personnel specified under paragraph (a); and

(ii) the **Authority**; and

(iii) an **auditor** conducting an **audit**; and

(c) restrict access to its records to—

(i) the relevant **metering equipment provider**; and

(ii) the **Authority**; and

(iii) an **auditor** conducting an **audit**. **[Rule 5.5 COP D2]**

(2) An **approved test house** must ensure that—

(a) the environment in which its activities are undertaken does not, or could not reasonably be expected to, invalidate test results or adversely affect the required accuracy of measurement; and

(b) the environmental conditions within its laboratory and storage facilities are monitored and recorded, and comply with the specific requirements for temperature, humidity, dust and electromagnetic interference for the **calibrations** or tests being carried out.

2 Equipment

(1) An **approved test house** must ensure that—

(a) it has access to all items of equipment required for the performance of the **calibrations** and tests it is approved to undertake in compliance with this Part; and

(b) each item of equipment it uses is maintained in accordance with the manufacturer's recommendations and this Code (but if there is any inconsistency or contradiction between the manufacturer's recommendations and this Code, this Code takes precedence); and

(c) it maintains records about each item of equipment, including—

(i) details of maintenance; and

(ii) **calibration** reports, including before and after **adjustment** results; and

(iii) records of in-service checks; and

(iv) a history of damage, malfunction, modification or repair.

(2) If an **approved test house** replaces, in whole or in part, an item of equipment required for the correct carrying out of the **calibrations** or tests or both, it must—

(a) **notify** the **market administrator** of the replacement as soon as reasonably practicable; and

(b) ensure that an **audit** is conducted prior to the use of the equipment.

(3) A **class B approved test house** must have and maintain, procedures for the purchase of test equipment and consumables. **[Rule 5.6 COPD2]**

3 Working standards and reference standards for approved test houses

(1) An **approved test house** must ensure that—

(a) an **approved calibration laboratory** has **calibrated** a **reference standard** before the **approved test house** uses the **reference standard** for any activity regulated under this Part; and

(b) an **approved calibration laboratory** or **class A approved test house** has **calibrated** a **working standard** before the **approved test house** uses the **working standard** for any activity regulated under this Part.

(2) An **approved test house** may only use a **reference standard** or **working standard** if its then current **calibration** report confirms that it—

(a) performs within the manufacturer's recommended accuracy levels; and

(b) has been **calibrated** at an interval not exceeding the **calibration** intervals set out in the following table:

Table 1: Calibration intervals

Standard		**Calibration Interval (months)**	**Maximum Calibration Interval (months)**
Reference	Measuring transformers	36	60
	Comparator bridges	36	60
	Meters	12	24
	Power factor, voltage and current meters	12	24
Working	All	2	12

(3) Despite subclause (2), if an **approved calibration laboratory** or (for **working standards**) **class A approved test house** responsible for the **calibration** of that **reference standard** or **working standard** produces a **calibration report** confirming that differences between **calibrations** are sufficiently small as to not increase the **uncertainty** beyond that given in the scope of accreditation, a **class A approved test house** must ensure that any **reference standard** or **working standard** used has been **calibrated** at an interval not exceeding the maximum **calibration** interval in subclause (2).

(4) A **class A approved test house** must ensure that—

(a) in all cases of **calibration** of its **reference standards**, the **uncertainties** given in **reference standard calibration report** are sufficiently small so that the **uncertainty** interval does not exceed one quarter of the maximum permitted error interval for a relevant compliance statement; and

(b) its **working standards** comply with the **calibration** intervals in subclause (2) and other relevant requirements for **reference standards**, before the **working standards** may be used on a system operating at a voltage of 33kV or above between active conductors; and

(c) its **reference standards**, other than standard measuring transformers, are, before they may be used, maintained at the appropriate reference conditions set out in the applicable IEC standards in force when the **reference standard** was originally **certified**.

(5) An **approved test house** must not use a **reference standard** or **working standard** that has been transported, unless it has evidence that the transport has not affected its **calibration**. The evidence must be a comparison against another **reference standard** or **working standard** with adequate short-term stability to confirm that any transport induced changes are within the permitted **calibration uncertainty**.

(6) An **approved test house** must, if it believes that a **reference standard** or **working standard** has a **calibration** error, as soon as reasonably practicable but no more than 3 **business days** after becoming aware of the error—

(a) investigate and ensure the cause or causes of the error are recorded in a **calibration report**; and

(b) if the investigation indicates that the **reference standard** or **working standard** performs outside the manufacturer's recommended accuracy levels, **notify** each **approved test house** that has used the **reference standard** or **working standard** since the previous **calibration**, of the error.

(7) An **approved test house notified** under subclause (6)(b) must, within 3 **business days** of being **notified**, **notify** the **metering equipment provider** of the defect or inaccuracy in a manner that will enable the **metering equipment provider** to carry out its obligations under clause 10.41.

4 Measurement traceability and calibration

An **approved test house** must document, maintain, and comply with, a system that ensures, whenever the **approved test house** undertakes a test or measurement,—

(a) the equipment it uses has been maintained in accordance with the manufacturer's recommendations and the requirements of this Part; and

(b) it keeps sufficient records to enable the **approved test house** to replicate the test or measurement in every respect should the need arise. **[Rule 5.7 COP D2]**

Requirements for calibration of metering components

5 Calibration methods

(1) An **approved test house** must, before it **certifies** a **metering installation** or **metering component**, ensure that only the following persons have **calibrated** the **metering components** under this Part:

(a) an **approved calibration laboratory**; or

(b) an **approved test house**. **[Rule 6.3 COP D3]**

(2) An **approved test house** must, before it **certifies** a **metering component** in a **metering installation**, ensure that it is **calibrated** or **adjusted** under—

(a) the appropriate physical and electrical reference conditions detailed in the relevant IEC standard; or

(b) conditions which permit the calculation of the results and their **uncertainty** at the reference conditions detailed in the relevant IEC standard.

(3) A **class B approved test house** must, when using any **calibration** equipment,—

(a) follow all relevant methodologies of NZ/AS ISO 17025; and

(b) include all relevant methodologies within the **approved test house audit** for approval.

(4) If an **approved test house calibrates** a **metering component**, it must ensure that the individual test points that it uses are—

(a) no less than the minimum set out in the relevant IEC standards specified in Table 4 of Schedule 10.1; and

(b) sufficient and appropriate in the circumstances to ensure that the **calibration** allows calculation of the **metering installation** error as set out in clause 18 of Schedule 10.7.

(5) An **approved test house** must, when **calibrating** a **metering component**—

(a) if necessary, **adjust** or document the **error compensation**; and

(b) ensure that any **adjustment** carried out under paragraph (a) is appropriate to achieve an error as close as practicable to zero; and

(c) ensure that the **uncertainty** of measurement during the **calibration** of **active meters**, **reactive meters** and measuring transformers does not exceed one quarter of the maximum permitted error in the relevant IEC standard; and

(d) if intended for a selected component **metering installation**, ensure that it records a measuring transformer's errors at a range of primary values at its rated burden in the **calibration report**.

(6) An **approved test house** must ensure that—

(a) it has documented instructions on the use and operation of all relevant equipment for **calibration**; and

(b) it has documented **calibration** procedures that it must make available to, and ensure are followed by, its staff carrying out the **calibration**; and

(c) **calibration** procedures are referenced to the standards as set out in Tables 4 of Schedule 10.1 and included as part of its formal procedures.

6 On site calibration

(1) A **certifying approved test house** may only **calibrate** a **metering component** on site if it records in **the metering component certification report**—

(a) confirmation that the overall **uncertainty** of measurement is calculated taking into account all influence quantities relating to the site for both the component being **calibrated** and the **working standards** which must comprise all **uncertainties** in the chain of **calibration** from the measurement of the SI Unit to the **metering component** under test; and

(b) a procedure that is **audited in** the **approved test house's audit**, which is appropriate for on site **calibration** that includes the methodologies, calculations and assumptions used by the **approved test house** in determining the **uncertainty**; and

(c) a statement that the **approved test house** believes that the **uncertainty** has been calculated as accurately as practicable; and

(d) a full statement as to why the **approved test house** believes, in the circumstances, the methodologies, calculations and assumptions are appropriate for the particular circumstances.

(2) A **certifying approved test house** may only **calibrate** a **metering component** on site in the **metering component's** normal working environment by—

(a) measuring the influence of all on site variables and including their estimated effects in the **uncertainty** calculation; and

(b) ensuring that—

(i) the effects of any departures from the **reference conditions** specified in the relevant standards set out in Table 4 of Schedule 10.1 can accurately and reliably be calculated; and

(ii) it meets the standards of accuracy and **uncertainty** in Table 1 of Schedule 10.1 after taking into account all known influences including temperature and temperature co-efficient measurements.

(3) If an **approved test house** carries out **calibrations** using manual methods, computers or automated equipment for the capture, processing, manipulation, recording, reporting, storage or retrieval of **calibration** data, it must ensure that—

(a) its computer software is documented and provides functionality in compliance with the minimum requirements of this Code; and

(b) it establishes, documents and implements procedures for protecting the integrity of data entry, storage, transmission and processing; and

(c) it maintains its computer hardware or automated equipment to ensure proper functioning; and

(d) it produces in the **calibration report** a complete and accurate statement as to why the **approved test house** believes that any methodologies, calculations and assumptions used in the **calibration** process are appropriate; and

(e) it has procedures for the maintenance of security of data, including, the prevention of unauthorised access to, or amendment of, records; and

(f) it has a documented system for uniquely identifying the items to be **calibrated**; and

(g) all observations and calculations are recorded in a permanent manner; and

(h) its original **calibration reports** are uniquely identifiable and traceable to the items to which they refer and to any reports based on them; and

(i) its **calibration reports** contain sufficient information to identify possible causes of error and to ensure the ability to carry out the repetition of the **calibration** under the same conditions as the original **calibration**; and

(j) its **calibration reports** uniquely identify the person who was responsible for their production and the checking of data transcriptions and calculations.

7 Metering component testing systems

An **approved test house** may use a complete **calibrated metering component** testing system (also known as a test bench) as an alternative to a separately **calibrated working standard** or **reference standard** and associated measuring transformers and **control devices**, provided that—

(a) it applies the **calibration** intervals specified in clause 3(2) to the **metering component** testing system; and

(b) before completing the **calibration report**, it carries out a testing system **accuracy** test, using approved **reference standards**; and

(c) if a **metering installation** testing system is outside the maximum permitted percentage error as set out in Table 1 of Schedule 10.1, the **approved test house**, on receipt of the **calibration report**, separately **calibrates** the **working standard** or **reference standard** and measuring transformers. **[Rule 6.2 COP D2]**

8 Compensation factors

An **approved test house** must, if it **certifies** a **metering installation** that includes **error compensation**, **loss compensation** and ratio compensation, have a documented process for determining those **compensation factors**.

9 Seals

An **approved test house** must have a documented system for applying seals to a **metering installation**, that meets the minimum requirements of clause 37 of Schedule 10.7, and is appropriate in the circumstances to ensure—

(a) the **approved test house's** ability to monitor the **metering installation's** continued integrity; and

(b) the relevant **metering equipment provider** is alerted as soon as practicable to any unauthorised access to the **metering installation**. **[Rule 5.4 COP D2]**

10 Approved test house record keeping and documentation

(1) An **approved test house** must ensure it has documented and maintains a record system for all available records, certificates and reports for a **metering installation** and **metering components**, which will ensure that the **approved test house** follows all requirements for record keeping specified in this Part.**[Rule 5.9 COP D2]**

(2) An **approved test house** must ensure that—

(a) all its records, certificates and reports are stored securely; and

(b) each of its test records for a **metering installation** is identified by a unique identifier; and

(c) all of its records, certificates and reports are sufficiently detailed to ensure complete **traceability** of all aspects of all tests it carries out for the following variables:

(i) test conditions; and

(ii) specific test equipment used; and

(iii) personnel carrying out the tests; and

(d) if it carries out a **certification**, it retains a copy of each **certification report**; and

(e) it complies with all requirements for record keeping specified in this Part.

(3) An **approved test house** must—

(a) keep a copy of the signed inspection report for each **metering installation** it has inspected in accordance with clause 34 of Schedule 10.7, confirming that the **certified metering installation** continues to comply with the requirements of this Code; and

(b) make each inspection report available to any relevant **participant** within 5 **business days** of receipt of a request from a relevant **participant**. **[Rule 8.2 COP D3]**

11 Making available of approved test house records

(1) An **approved test house** must, for each **metering installation** for which the **metering equipment provider** is responsible,—

(a) send, and ensure that the **metering equipment provider** receives, a copy of all details, records, certificates and reports in electronic form within 5 **business days** of such record's creation; and **[Rule 8.2 of COP D3]**

(b) retain, for at least 48 months after the last date of activity to which the record relates, all details, records, certificates and reports of all tests carried out, and all **certification reports** produced,—

(i) for each **metering component**; and

(ii) for the overall **metering installation**; and **[Rule 4.5 of COP D3]**

(c) subject to the limitations on access under this Part, ensure that all its details, records, certificates and reports are made available upon request, to—

(i) the **Authority**; or

(ii) an **auditor**.

(2) An **approved test house** must, for each **meter** or measuring transformer that it **calibrates**, produce a **calibration report** containing complete and accurate details of all tests carried out and their results.

(3) An **approved test house** must, for each **metering component** that it **certifies**, produce a **certification report** containing—

(a) a **calibration report** if relevant; and

(b) any manufacturer's testing reports; and

(c) the results of any test carried out by the **approved test house** on the **metering component**; and

(d) confirmation that the **metering component** meets the required standards set out in Table 4 of Schedule 10.1.

(4) An **approved test house** must, for each **metering installation** that it **certifies**, produce a **certification report** containing—

(a) a **certification report** for every **metering component** in the **metering installation**; and

(b) the location of the **services access interface** as determined under clause 12; and

(c) a design report including as built modifications. **[Rule 5.8 COP D2]**

12 Services access interface

An **approved test house** must, when preparing a **metering installation certification report**, determine and record the **services access interface**.

13 Approved test house organisation and management

(1) An **approved test house** must ensure that—

(a) it has managerial staff who all, unless otherwise permitted in the relevant approval, have the authority and resources needed to discharge their duties; and

(b) the responsibilities, authority and functional relationships of all its relevant personnel are fully and accurately specified and recorded in the **approved test house** records.

(2) An **approved test house** must appoint—

(a) a technical manager (however named) with overall responsibility for technical operations, who must have appropriate engineering qualifications and experience in the operation of an **approved test house**; and

(b) a quality manager (however named), with responsibility for the quality **certification** and its implementation.

(3) An **approved test house** must ensure that all staff that perform or supervise work, including, the technical manager referred to in subclause 2(a) and the quality manager referred to in subclause (2)(b), are technically competent, experienced, qualified and trained for the functions they perform. **[Rule 5.2 COP D2]**

14 Quality management system

An **approved test house** must establish, document, implement, maintain and comply with a quality management system which covers, and illustrates fully

and accurately, the **approved test house's** proposed processes and procedures to ensure compliance with, all the relevant requirements of this Code. **[Rule 5.3 COP D2]**

15 Complaints and corrective processes

An **approved test house** must—

(a) develop and maintain documented policies and procedures for—

(i) the resolution of complaints received from **participants** or other persons about the **approved test house's** activities or facilities; and

(ii) measures designed to ensure that such complaints do not recur; and

(b) keep records of all complaints made to, and of all relevant corrective measures taken in response to such complaints by, the **approved test house**. **[Rule 9 of COP D2]**

Schedule 10.5

Metering equipment providers—Audits

1 Metering equipment provider must ensure that audits are carried out

(1) A **metering equipment provider** must—

(a) ensure that an initial **audit** by an **auditor** is completed within 3 calendar months after the date on which the **participant** assumed responsibility as a **metering equipment provider**; and

(b) ensure that it has an **audit** of its obligations under this Part and Part [E] is carried out within the period specified by the **Authority**, which period must be at least 3 months after, but no more than 36 months after, the date of the **metering equipment provider's** previous **audit**; and

(c) ensure that the **auditor** includes in the **audit** report a recommendation on the date by which the **metering equipment provider** must have completed its next **audit** and **audit** report; and

(d) supply the finalised **audit** report to the **Authority** within 1 month of its being finalised, or within such other timeframe determined and **published** by the **Authority**; and

(e) pay the costs of an **audit** required under this clause in accordance with the terms of the applicable contract.

(2) A **metering equipment provider** must ensure an **auditor** carrying out an **audit** under subclause (1) **audits** the following processes and procedures:

(a) the appropriate management and maintenance of each **metering installation** for which the **metering equipment provider** is responsible, including—

(i) maintenance of **metering records**; and

(ii) maintenance of **metering components**; and

(iii) **certification** and **recertification** of **metering components** and **metering installations**; and

(iv) **metering installations** that have been **certified** at a lower category; and

(v) inspections in accordance with this Code; and

(b) the provision of relevant **metering records** to—

(i) the **registry**; and

(ii) the **reconciliation manager**; and

(c) the provision of access under clause 1 of Schedule 10.6 to authorised parties—

(i) **metering data**; and

(ii) **metering records**; and

(iii) the **metering installation**; and

(d) the security of—

(i) the **metering installations** for which the **metering equipment provider** is responsible; and

(ii) if relevant, the **metering equipment provider's back office**; and

(iii) if relevant, the **communication** between the **metering equipment provider's back office** and the **metering installations**.

2 Metering equipment provider audit reports

(1) A **metering equipment provider** must ensure that an **auditor** carrying out an **audit** under clause 1 complies with the following requirements:

(a) the **audit** report must be in the **prescribed form**:

(b) the **auditor** must send to the **metering equipment provider** to whom the **audit** relates a draft of the **audit** report setting out the provisional findings of the **audit**:

(c) the **auditor** must give the **metering equipment provider** a reasonable opportunity to comment on the draft of the **audit** report:

(d) the **auditor** must consider any comments it receives from the **metering equipment provider** about the draft of the **audit** report:

(e) the **auditor** must produce a final **audit** report and provide the report to the **metering equipment provider**.

(2) The **metering equipment provider** must ensure that the final **audit** report—

(a) specifies conditions (if any) that the **auditor** considers the **metering equipment provider** must satisfy for the **metering equipment provider** to comply with this Code, and any action that the **metering equipment** provider has taken in respect of those conditions; and

(b) includes a list of all contractors engaged by the **metering equipment provider** to perform the **metering equipment provider's** obligations, and details of the obligations that each of those contractors perform; and

(c) includes a summary that specifies—

(i) the date of the **audit** report; and

(ii) the name of the **metering equipment provider**; and

(iii) the scope of the **audit**; and

(iv) whether or not the **audit** established that the **metering equipment provider's** processes and procedures comply, and historically have complied, with all the applicable obligations in this Code; and

(v) the name of the **auditor**.

3 Changes to metering equipment provider's facilities, systems and processes

If a **metering equipment provider** intends to change any of its facilities, processes or procedures that the **metering equipment provider** considers is material, the **metering equipment provider** must, at least **5 business days** before the change is to take place—

(a) **notify** the **Authority** of all relevant details of the change; and

(b) submit to the **Authority** an **audit** report confirming, amongst other things, that the **metering equipment provider** will continue to meet the requirements under this Code after the change has been made.

Schedule 10.6

Metering equipment provider ongoing obligations and functions

1 Metering equipment provider must provide access to metering data

(1) A **metering equipment provider** must, within 3 **business days** of receiving a request from a user of a **metering installation** with whom it has contracted, give remote or on site access to for the user to collect, obtain and use **metering data** from the **metering installation**, only if the user is authorised by the **customer** at the **point of connection** to do so through a contract—

(a) with the **consumer** whose **electricity** is measured or whose load is controlled at that **metering installation**; or

(b) between the **trader** and the **consumer**.

(2) A **metering equipment provider** must ensure that access to **metering data** under subclause (1) is limited to only—

(a) the specific **metering data** authorised by a contract described in subclause (1)(a) or (1)(b); or

(b) a **participant** authorised under subclause (5).

(3) The **metering equipment provider** must provide an authorised user referred to in subclause (1) with the **metering data** or any necessary facilities, codes, keys or other means to enable the user to obtain access to the **metering data** by the most practicable means, using appropriate procedures to ensure that—

(a) the **metering data** is received only by the user or their contractor; and

(b) the security of the **metering data** and the **metering installation** is maintained.

(4) An authorised user of a **metering installation** includes—

(a) the **reconciliation participant** who is responsible for providing the **submission information** for the **metering installation** to the **reconciliation manager** under Part [J]:

(b) the **distributor** who has a contract with the **metering equipment provider** and who is responsible for the **network** connection at which **ICP:**

(c) the **consumer** whose **electricity** is measured, or whose load is controlled, at the **metering installation**:

(d) an **approved test house** or **auditor** who has contracted with the **metering equipment provider**.

(5) The **metering equipment provider** must, within 3 **business days** of receiving a request from one of the following **participants**, give on site or remote access to **metering data** required for the purposes of exercising their rights and performing their obligations under

this Code or any relevant [**regulations**] in connection with their respective **auditing**, administration and testing functions:

(a) the **Authority**:

(b) an **approved test house**:

(c) an **auditor**:

(d) a relevant **distributor**:

(e) a relevant **metering equipment provider**.

(6) The **metering equipment provider** must not give access to **metering data** to a person who does not have authorisation under this clause.

(7) A **participant** is not entitled to obtain access to, or use, **metering data** for any purpose that is not expressly authorised under this Part.

(8) Nothing in this Part affects the ownership of **metering data**.

2 Restrictions on use of metering data

(1) A **metering equipment provider** must not give a person access to information from a **metering installation** for which it is responsible, if to do so would or would reasonably be expected to—

(a) breach any legislative, regulatory, or other legal requirement; or

(b) prejudice the maintenance and monitoring of this Code, including the prevention, investigation, and detection of Code breaches and the right to a fair hearing before the **Rulings Panel**; or

(c) result in the **metering equipment provider** breaching an obligation of confidentiality; or

(d) interfere with the privacy of a natural person; or

(e) create an improper gain or improper advantage for any **participant** or person; or

(f) commercially disadvantage the **metering equipment provider** or any other **participant** or person, in a material manner; or

(g) prejudice the future supply of information that is required by a **service provider** to perform an obligation under this Code.

(2) A **metering equipment provider** must not impose limitations or restrictions on the rights of a person to access information from any of its **metering installations**, where such rights of access are provided for in this Part.

(3) A **participant** must not include in a contract with any person, a provision that may impede any person from gaining access to any **metering data**, to the extent required for the person to exercise its rights or comply with any requirements under this Code.

(4) A **metering equipment provider** who supplies **metering data** may charge, unless agreed otherwise in a contract, the requesting person, other than the **Authority**, for—

(a) the reasonable cost involved in supplying the **metering data** to the requesting person; and

(b) any additional costs incurred as a result of a request for urgent provision of **metering data**.

(5) The **participant** who supplies the **metering data** may require, by giving written **notification**, the requesting **participant** to pay all or any part of the charge in advance.

(6) Any dispute regarding the cost of providing **metering data** must be dealt with in accordance with clause 10.46.

(7) If a **participant** wishes to obtain access to any **metering data**, it must **notify** the relevant **metering equipment provider**, giving all relevant particulars of the **metering data** required, at least 3 **business days** in advance of the date on which it wishes to have access to the **metering data**.

(8) If a **participant** requires urgent access to any **metering data**, it must **notify** the relevant **metering equipment provider**, giving all relevant particulars of the **metering data** required and the reason for the urgency, and the **metering equipment provider** must use its best endeavours to provide the requested **metering data** in accordance with the requested urgency.

3 Metering equipment provider record keeping and documentation

(1) A **metering equipment provider** must, for each of the **metering installations** for which it is responsible, keep accurate and complete records of— **[Rule 8 COP D3]**

(a) the due date for **recertification** of each **metering component** in the **metering installation**; and

(b) all equipment, including serial numbers and manufacturers' details, used in relation to the **metering installation**; and

(c) the manufacturer's test certificates for each **metering component** in the **metering installation**; and

(d) the **metering installation** category for each the **metering installation**; and

(e) all **certification reports** and **calibration reports** showing, among other things, dates tested, tests carried out and test results for all **metering components** in the **metering installation**; and

(f) the contractor who installed a **metering component** in the **metering installation**, and

(g) the **certification sticker**, or equivalent details for each **metering component** that is **certified** under this Schedule 10.8 in the **metering installation**; and

(h) seal identification information under clause 37 of Schedule 10.7 relating to the **metering installation**; and

(i) any **loss compensation** and **error compensation** arrangements or multipliers applicable to each **metering installation**; and **[Rule 8 COP D3]**

(j) each **metering component owner** and their **metering components** within the **metering installation**; and

(k) any applications installed within **metering components** within the **metering installation**.

(2) A **metering equipment provider** must keep a copy of the signed inspection report under clause 34 of Schedule 10.7, confirming that the **certified metering installation** continues to comply with the requirements of this Code, with the **certification records**, and make a copy of the inspection report available to a **participant** within 3 **business days** of receiving a request from a **participant**.

4 Metering equipment provider to record, retain, and provide access to metering records

(1) A **metering equipment provider** must—

(a) store, maintain and provide access to the **metering records** for each of its **metering installations**; and

(b) give to, and maintain in, the **registry**, the **registry metering records** for each of its **metering installations**, in accordance with Schedule [E3] of Part **[E]**; and

(c) ensure that an **audit** is carried **out** by an **auditor**; and

(d) provide an **audit report** to the **Authority**, in accordance with the processes and procedures set out in clause 1(2) of Schedule 10.5, to determine whether the **metering equipment provider** is in breach of this Part and Part [E].

(2) A **metering equipment provider** must, keep **metering records** for at least 48 months,—

(a) in relation to a **metering component**, after a **metering component** is removed from a **metering installation** for which it is responsible; and

(b) in relation to a **metering installation** for which it is responsible, after it has been **decommissioned**.

5 Provision of metering records to an approved test house when certifying a metering installation

(1) This clause applies if—

(a) a **metering equipment provider** contracts with an **approved test house** to **recertify** a **metering installation**; and

(b) the **approved test house** did not perform the previous **certification** of the **metering installation**.

(2) If this clause applies, the **metering equipment provider** must provide, within 3 **business days** of the effective date of such contract, a copy of all relevant **metering records** to the **approved test house**. **[Rule 8.3 of COP D3]**

6 Metering equipment provider must use participant identifier

(1) A **metering equipment provider** must—

(a) ensure that it has a unique **participant identifier** for its activities as **metering equipment provider** under this Code; and

(b) use its **participant identifier**, if required, to correctly identify that **metering equipment provider's** information.

(2) A **metering equipment provider** must apply to the **Authority** in the **prescribed form** for a **participant identifier** at least 5 **business days** before the **participant identifier** is required.

(3) The **Authority** may, by **notifying** a **metering equipment provider**, at any time, change the **metering equipment provider's participant identifier**. If the **Authority** does this, the new **metering equipment provider's** new **participant identifier** becomes effective from the date specified in the **notification**.

7 Electronic interrogation of a metering installation

(1) A **metering equipment provider** must not, when setting or changing the **interrogation** cycle for a **metering installation**, exceed the maximum **interrogation** cycle in the **registry**.

(2) A **metering equipment provider** must, when electronically **interrogating** a **metering installation**, ensure that the **interrogation** and processing system has its internal clocks **calibrated** electronically against a time source with a traceable standard on a regular basis, at intervals sufficient, and no longer than 1 week, to ensure the internal clock is accurate, when carrying out an **interrogation**, to within ±5 seconds of—

(a) **New Zealand standard time**; or

(b) **NZDT**.

(3) A **metering equipment provider** must ensure that its **interrogation** and processing system records, in the **interrogation** and processing system logs, the time, date and extent of any change in the internal clock setting.

(4) A **metering equipment provider** must ensure that any **data storage device** which it is responsible for **interrogating** does not exceed the maximum time error set out in Table 1.

(5) A **metering equipment provider**, when electronically **interrogating** a **metering installation**,—

(a) must compare the time on the internal clock of the **data storage device** with the time on the **interrogation** and processing system clock; and

(b) if the time error determined under paragraph (a) is no greater than the applicable time error set out in Table 1, may automatically synchronise the clock of the **data storage device** with the **interrogation** and processing system clock; and

(c) if the time error determined under paragraph (a) is greater than the applicable time error set out in Table 1, must synchronise the clock of the **data storage device** with the **interrogation** and processing system clock, and notify the trader for that ICP of any affected **raw** meter **data**; and

(d) must download the **event log**; and

(e) check the **event log** for evidence of malfunctioning or tampering and if this is detected, carry out the appropriate requirements of this Part.

Table 1: Maximum permitted time errors

Metering installation category	**Half-hour metering installations** (seconds)	**Non half-hour metering installations** (seconds)
1	±30	±30
2	±10	±30
3	±10	NA
4	±10	NA
5	±5	NA

(6) The **metering equipment provider** must ensure that all data downloaded as part of the **interrogation** is archived—

(a) for a period of not less than 48 months from the **interrogation** date; and

(b) in a form that cannot be modified without an **audit** trail being created; and

(c) in an form that is secure and prevents access by any unauthorised person; and

(d) in a form that is accessible to authorised personnel.

(7) A **metering equipment provider** must ensure that that for all **metering information**, an **interrogation** log must be generated by the **interrogation** software to record details of all **interrogations**.

(8) A **metering equipment provider** must peruse the **event log** either manually or by an automated software function which flags exceptions and—

(a) take appropriate action taken where problems are apparent; and

(b) pass relevant **event log** entries to the **trader** for the **ICP**.

(9) A **metering equipment provider** must ensure that the **interrogation** log forms part of the **interrogation** audit trail and contains the following as a minimum:

(a) the date of **interrogation**; and

(b) the time of commencement of **interrogation**; and

(c) the operator identification (where available); and

(d) the unique identifier of the **data storage device**; and

(e) the clock errors outside the range specified in Table 1; and

(f) the method of **interrogation**; and

(g) the identifier of the reading device used for **interrogation** (if applicable).

Schedule 10.7

General Requirements

Metering installation general requirements

1 Maintenance and repair of metering installations

Metering installation design reports

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Metering installation general requirements

1 Maintenance and repair of metering installations

A **metering equipment provider** must, for each **metering installation** for which it is responsible—

(a) ensure that regular maintenance, including battery monitoring and replacement, is carried out in accordance with the **metering installation certification report**; and

(b) ensure, that where necessary, repair or replacement is carried out of—

(i) the **metering installation**; or

(ii) any **metering component** in the **metering installation**; and

(c) ensure that all maintenance, repair or replacement carried out is documented in the **metering records** at the time such maintenance, repair or replacement is carried out.

Metering installation design reports

2 Design reports for metering installations

(1) A **metering equipment provider** must obtain a design report under this clause for—

(a) a proposed new **metering installation** for which it will be responsible, before the **metering installation** is installed; and

(b) the modification of an existing **metering installation** for which it is responsible before the modification is carried out.

(2) The **metering equipment provider** must ensure that a design report required under subclause (1) is prepared by a person with an appropriate level of skill, expertise, experience and qualification.

(3) The **metering equipment provider** must ensure that a design report obtained under subclause (1) includes—**[Rule 5.1 of COPD3]**

(a) a schematic drawing of the **metering installation** for use by an **approved test house**; and

(b) details of the configuration scheme that programmable **metering components** are to include, and if this scheme has been approved by an **approved test laboratory**; and

(c) the maximum **interrogation** cycle that is required to ensure compliance with clause 27(5); and

(d) all recommended **compensation factor** arrangements; and

(e) the method of **certification** required to be carried out under clause 5.

(4) The **metering equipment provider** must, for each **metering installation** for which it is responsible, ensure that the design report (including without limitation the drawing) identifies and is signed by, the person who prepared the design and any subsequent modification.

(5) The **metering equipment provider** must provide the design report to the **certifying approved test house** before the installation or modification of—

(a) a **metering installation**; and

(b) a **metering component**.

(6) The **certifying approved test house** must check and approve, in writing, the design report including the installation configuration and the drawing, to ensure that the proposed new or modified **metering installation**—

(a) will function correctly; and

(b) will provide the required accuracy and **raw meter data**; and

(c) complies with the requirements of this Part.

(7) The **metering equipment provider** must ensure that—

(a) the **uncertainty** of a **metering installation** does not exceed the maximum permitted values listed in Table 1 of Schedule 10.1 for the **certification** methodology to be used; and

(b) the design of the **metering installation**, **data storage device** and **interrogation** system will ensure that the smallest possible increment in the energy value of the **raw meter data** is within the required maximum permitted error set out in Table 1 of Schedule 10.1.

(8) The **metering equipment provider** must—

(a) comply with the design report for each **metering installation** for which it is responsible; and

(b) ensure that each **metering installation** for which it is responsible complies with its design report; and

(c) if a **metering installation** has been tested in accordance with clause 7(1)(d), ensure that each electronic **interrogation** of the **metering installation** that retrieves **half-hour metering information** compares that information against the increment of accumulating **meter** registers.

Determination of metering installation categories

3 Determination of metering installation category

(1) An **approved test house** must, before it **certifies** a **metering installation**, determine the category of the **metering installation** in accordance with the following:

(a) if the **metering installation** incorporates a current transformer, its category must be determined according to the primary current rating of the measuring transformer and the connected voltage set out in Table 1 of Schedule 10.1:

(b) if the **metering installation** does not incorporate a current transformer and the quantity of **electricity** conveyed is measured by a **meter**, it must be category 1.

(2) Despite subclause (1), an **approved test house** may **certify** a **metering installation** under clause 4 as a lower category than it otherwise would be under this clause.**[Rule 4.2 of COP D3]**

(3) The **retailer** for an **ICP** must ensure, that a **metering installation** in which none of the **electricity** conveyed is measured by a **meter**, but is calculated in an approved manner, is recorded as category 0 under clause 10.9(2).

4 Determination to be lower category

(1) An **approved test house** may, before it **certifies** a **metering installation** incorporating a current transformer, determine the category to be lower than would otherwise be the case if it had been **certified** in accordance with clause 3, only in one of the following circumstances:

(a) if a protection device, including a fuse or a **circuit breaker**, is installed that limits the maximum current of the **metering installation**, that is then used to determine the category of the **metering installation**. In such a case, the **approved test house** must, when **certifying** the **metering installation**—

(i) verify the suitability and operational condition of the protection device, and

(ii) record the rating of the protection device; and

(iii) seal the protection device in accordance with clause 37; and

(iv) apply, if practicable, a warning tag to the seal in accordance with clause 37(4); or

(b) if the maximum current expected by the **metering equipment provider**, acting reasonably on the basis of historic **metering data**, to be conveyed through the **metering installation**, will, at all times during the intended **certification** period, be lower than the minimum threshold of the category for which the **metering installation** is currently **certified**. In such a case the **approved test house**, if it considers the criteria appropriate may, at the request of the **metering equipment provider**, determine the **metering installation** category according to the **metering installation's** expected maximum current, and—

(i) the **metering equipment provider** must, each month, obtain a report from the **participant interrogating** the **metering installation**, detailing the maximum current conveyed through the **metering installation** for the prior month. For the purposes of this subparagraph, the maximum current must be determined from **raw meter data** from the **metering installation** by either calculation from the kVA if kW and kVAr readings by **trading period** if available, or from a maximum current indicator if fitted within the **metering installation**; and

(ii) if the report identifies that the maximum current conveyed through the **metering installation**, at any time during the previous month, exceeded the maximum permitted current for the **metering installation** category as **certified**, **certification** for the **metering installation** will be cancelled from the date the **metering equipment provider** obtained the report; or

(c) if the **metering installation** uses, or it is considered by the **metering equipment provider**, acting reasonably on the basis of historic **metering data** that the **metering installation** will use less than 0.5 GWh per 12 month period (including, for example, an emergency fire pump or flood pump). In such a case—

(i) if the **certifying approved test house** determines a lower **metering installation** category under this clause and the primary voltage is less than 1kV, the **approved test house** must **certify** the **metering installation** as category 2; or

(ii) if the **certifying approved test house** determines a lower **metering installation** category under this clause and the primary voltage is greater than or equal to 1kV, the **approved test house** must **certify** the **metering installation** as category 3; and

(iii) the **metering equipment provider** must, each month, obtain a report from the **participant interrogating** the **metering installation** detailing the total kWh consumption of the **metering installation** for the prior 12 months; and

(iv) if the report obtained under subparagraph (iii) identifies that the **electricity** conveyed through the **metering installation** exceeded the 0.5 GWh threshold during the previous 12 month period, the **certification** for that **metering installation** is cancelled from the date on which the **metering equipment provider** obtained the report.

(2) The **approved test house** must visit the site of a **metering installation** to **certify** the **metering installation** that is to be **certified** at a lower category under subclause (1).

(3) If an **approved test house certifies** a **metering installation** at a lower category under this clause—

(a) the **metering installation certification sticker** required under clause 29 must record the category at which it has been **certified**; and

(b) the **metering installation certification report** must include the all information under subclause (1).

Certification of a metering installation

5 Method of certification

(1) An **approved test house** must, when **certifying** or **recertifying** a **metering installation**, only use—

(a) the selected component **certification** method under clause 8, for the categories of **metering installations** set out in Table 1 of Schedule 10.1; or

(b) the fully **calibrated certification** method under clause 9, for the categories of **metering installations** set out in Table 1 of Schedule 10.1.

(2) Despite subclause (1), an **approved test house**—

(a) may **recertify** a category 1 **metering installation** using statistical sampling in accordance with clause 12; and

(b) if it uses statistical sampling under paragraph (a), must use one of the methods described in subclause (1)(a) or (1)(b) for the sample.

6 Metering installation certification requirements

(1) An **approved test house** must, before it **certifies** a **metering installation** as category 3, 4 or 5, ensure that a **half hour meter** is used to quantify the **electricity** conveyed. [Rule 3 of COP D1]

(2) An **approved test house** must, when **certifying** a **metering installation**—

(a) produce a **certification report** for each **metering installation** it **certifies**; and

(b) specify in the **certification report** whether the **metering installation** is either—

(i) **half hour**; or

(ii) non **half hour**; and

(c) determine the location of the **services access interface** in accordance with clause 12 of Schedule 10.4 and record the location in the **metering installation certification report**. **[Rule 5.2 of Part D]**

7 Certification tests

(1) An **approved test house**, when required under Tables 2 or 3 of Schedule 10.1,—

(a) to carry out a **working standard** at prevailing load test, must ensure that the test comprises the use of a **working standard** connected in parallel to the **meter** on the **metering installation**; and

(b) to carry out an installation or component configuration test, must ensure that the actual configuration scheme—

(i) is the same as the scheme for the **metering installation** recorded in the design report; and

(ii) has been approved by an **approved test laboratory**; and

(c) to carry out a **raw meter data** output test for a non **half-hour metering installation**, must ensure that a test is conducted that compares a **working standard** and the increment on the sum of the **meter** registers; and

(d) to carry out a **raw meter data** output test for a category 1 **half-hour metering installation**, must conduct a test that—

(i) subject to subclause (2), compares the **working standard** with the increment on the sum of the **meter** registers or the master accumulation register; or

(ii) compares the **working standard** and the **raw meter data** for a minimum of one **trading period**; and

(e) to carry out a **raw meter data** output test for a category 2, 3, 4, or 5 **half-hour metering installation**, must compare the **working standard** and the **raw meter data** for a minimum of one **trading period**.

(2) An **approved test house** must, when conducting a test under subclause (1)(d)(i), confirm that the **metering equipment provider's** processes include a check on each **interrogation** cycle of the **meter** registers and the **half-hour metering raw meter data**.

8 Selected component metering installation certification

(1) This clause only applies to selected component **metering installation certification**.

(2) An **approved test house** may only use the selected component **certification** method to **certify** new and existing **metering installations**—

(a) for the categories set out in Table 1 of Schedule 10.1 for which this is permitted; and

(b) by carrying out the tests set out in Table 2 of Schedule 10.1; and

(c) in accordance with this Part.

(3) An **approved test house** must ensure that any **metering component** used for a new or modified **metering installation** is used under this clause only in a combination selected from the permitted combinations set out in Table 1 of Schedule 10.1.

(4) An **approved test house** must ensure that all **metering components** in a **metering installation** have a **certification report** under this clause that—

(a) complies with the requirements of this Schedule; and

(b) for each **calibrated metering component**, includes a **calibration report** that confirms that the **metering component** complies with the requirements of—

(i) its accuracy class; and

(ii) the **certification** date of the **metering component**;

(5) An **approved test house** must, when preparing a **metering installation certification report** under this clause, confirm that the **approved test house** has—

(a) checked the design report of the **metering installation** to ensure its functionality and compliance with this Part; and

(b) made allowance for any **loss compensation** arrangements under subclause 10.33(3); and

(c) ensured that all **metering components** in the **metering installation** have been **calibrated** and **certified** as required in this Part; and

(d) carried out the relevant tests and checks set out in Table 2 of Schedule 10.1; and.

(e) checked and confirmed that the **metering installation** is correctly wired in accordance with all applicable requirements and enactments. **[Rule 6 of COP D3]**

9 Fully calibrated metering installation certification

(1) This clause only applies to fully **calibrated metering installation certification**.

(2) An **approved test house** may use the fully **calibrated certification** method to **certify** a **metering installation**—

(a) for all categories set out in Table 1 of Schedule 10.1 for which this is permitted; and

(b) by carrying out the tests set out in Table 3 of Schedule 10.1; and

(c) in accordance with this Part; and

(d) only if all **metering components** in the **metering installation** required to be **calibrated** have been **calibrated** by an **class A approved test house**, **approved test laboratory** or **approved calibration laboratory**.

(3) An **approved test house** must ensure that all **metering components** in a **metering installation** have a **certification report** under this clause that—

(a) complies with the requirements of this Schedule; and

(b) for each **calibrated metering component**, includes a **calibration report** that confirms that the **metering component** complies with the requirements of—

(i) its accuracy class; and

(ii) the **certification** date of the **metering component**.

(4) An **approved test house** must, before it **certifies** a **metering installation** under this clause—

(a) check the design report to ensure its configuration and compliance with this Part; and

(b) make allowance for any **error compensation** or **loss compensation** arrangements under clause 10.33(3); and

(c) ensure that all **metering components** in the **metering installation** have been **calibrated** and **certified** as required in this Part; and

(d) carry out the relevant tests and checks set out in Table 3 of Schedule 10.1; and

(e) check and confirm that the **metering installation** is correctly wired in accordance with all applicable requirements and enactments. **[Rule 5.2 of COPD3]**

(5) An **approved test house** must, before it **certifies** a **metering installation** under this clause, ensure that it uses the **meter** class accuracy, and not the actual accuracy, when calculating the maximum permitted error set out in Table 1 of Schedule 10.1.

10 Insufficient load for full metering installation certification

(1) This clause only applies if there is insufficient **electricity** conveyed through a **point of connection** to allow an **approved test house** to complete statistically reliable meaningful load tests for a **metering installation** that—

(a) is category 3 or above; and

(b) has a voltage in excess of 1kV.

(2) When this clause applies, an **approved test house** must, when **certifying** a **metering installation** referred to in subclause (1), ensure that—

(a) an **approved test house** has performed an additional integrity check of the **metering installation** wiring, and recorded the results of this check; and

(b) it records the fact that it is **certifying** the **metering installation** under this clause in the absence of a normal series of tests on the **certification report** issued.

(3) A **metering equipment provider** must, for a **metering installation certified** under subclause (2), obtain and monitor **raw meter data** from the **metering installation** at least once each calendar month to determine that load during that month is insufficient for testing.

(4) The **metering equipment provider** must, if information obtained under subclause (3) indicates, at any time, that there is sufficient **electricity** conveyed through the **metering installation** for testing in accordance with subclause (1), ensure that the **certifying approved test house** makes a subsequent visit to the **metering installation** as soon as practicable, but no later than 10 **business days** after becoming aware of such information, to carry out and complete the normal series of tests as required set out in whichever is appropriate of Table 2 or 3 of Schedule 10.1.

(5) The **certifying approved test house** must, if a test referred to in subclause (4) demonstrates that the **metering installation** performs within the maximum permitted error set out in Table 1 of Schedule 10.1, update the **metering installation certification report**, within 3 **business days** of completing the test, to include the results of the tests carried out. If this happens, the original **metering installation certification** expiry date remains unchanged.

(6) If a test referred to in subclause (4) demonstrates that the **metering installation** does not perform within the maximum permitted error set out in Table 1 of Schedule 10.1—

(a) the **certifying approved test house** must cancel the **metering installation certification** from the date of the test, and advise the **metering equipment provider** within 1 **business day**; and

(b) the **metering equipment provider** must follow the procedure for defective **metering installations** set out in clauses 10.41 and 10.45.

11 Recertification of metering installation

(1) A **metering equipment provider** must have a **recertification** programme for all **metering installations** for which it is responsible to ensure that each **metering installation** is **recertified** prior to the expiry date of its then current **certification**.

(2) An **approved test house** may, if the **certification** of a **metering component** expires, **recertify** the **metering installation** only by—

(a) removing the relevant **metering component** and replacing it with an equivalent but **certified metering component**; or

(b) **recertifying** the **metering component** on site under clause 12 of Schedule 10.8.

(3) An **approved test house** must only produce a **certification report** if it is satisfied that a **metering installation** has been installed and is functioning in accordance with its design report and the requirements of this Part.

(4) An **approved test house** must, before it **recertifies** a **metering installation**,—

(a) ensure that all **metering components** in the **metering installation** have been **certified**; and

(b) make allowance for any **loss compensation** or **error compensation** arrangements under clause 10.33(3); and

(c) carry out the relevant tests and checks set out in whichever is appropriate of Table 2 or 3 of Schedule 10.1 and record the results; and

(d) carry out those **calibration** tests that it considers are appropriate for the **metering installation** if—

(i) **recertification** involves **meter** or measuring transformer **recalibration** on site; or

(ii) the **meter** or measuring transformer is being replaced with a new or refurbished **calibrated meter** or measuring transformer; and

(e) ensure that the **calibration report** records—

(i) the **calibration** tests performed and results; and

(ii) any assumptions and the basis for the assumptions; and

(iii) the reasons for carrying out limited testing, if relevant; and

(f) carry out any other tests and checks required to confirm the integrity of the **metering installation** and record these and their results in the **metering installation certification report**; and

(g) check and confirm that the **metering installation** is correctly wired in accordance with all applicable requirements and enactments.

Statistical sampling recertification

12 Recertification of category 1 metering installations by statistical sampling

(1) A **metering equipment provider** may request an **approved test house** to **recertify** a group of category 1 **metering installations** using a statistical sampling process.

(2) The **metering equipment provider** must, within 3 **business days** of making a request to an **approved test house** to carry out statistical sampling **recertification**, provide the **approved test house** with all of the relevant **metering data** and set out all relevant details, required for the **approved test house** to undertake the statistical sampling process.

(3) An **approved test house** using a statistical sampling process under this clause must undertake the **recertification** by **calibrating** all of the **metering installations** in a sample, which has been selected from the group of category 1 **metering installations,** using only—

(a) a statistical sampling process detailed in AS1284 part 13; or

(b) any other process that is approved and **published** by the **Authority**.

(4) An **approved test house** must, when carrying out a statistical sampling process,—

(a) ensure the process has been conducted in accordance with subclause (3); and

(b) document completely and accurately the process followed and any assumptions made; and

(c) keep records in accordance with clause 10 of Schedule 10.4, of—

(i) each step in the process; and

(ii) each **metering installation** in the sample; and

(iii) each **metering installation** in the group that is **certified** using this process.

(5) The **certifying approved test house** must, if it has reason to believe that the sample—

(a) fails to meet the requirements of subclause (3), as soon as reasonably practicable, **notify** the **metering equipment provider** of the failure and that the **certification** of all of the **metering installations** within that group that would have been **certified** is cancelled from the date of that **notification**; or

(b) meets the requirements of the standard under subclause (3), as soon as reasonably practicable, **notify** the **metering equipment provider** that—

(i) the sample meets the requirements of subclause (3); and

(ii) the **certification** of the **metering installations** within that group is continued from the date of that **notification**.

(6) The **metering equipment provider** must, upon receipt of **notification** under subclause (5), update the **registry** in accordance with Part [E].

(7) Despite clause 29(1), an **approved test house recertifying** a group of **metering installations** using a statistical sampling process is not required to apply a **certification sticker** to the **metering installations** in the group being **certified** that were not part of the sample. **[Rule 5.3 of COPD3]**

Certification validity periods

13 Determination of expiry dates for certification of metering components and metering installations

(1) An **approved test house** must, before it may **certify** a **metering installation**—

(a) determine the expiry date for the **metering installation's certification** in accordance with this clause; and

(b) record the expiry date in the **metering installation certification report**.

(2) The expiry date for a **metering installation's certification** is the earliest of—

(a) the date being the **commissioning** date plus the maximum **metering installation certification** validity period for the **metering installation**, as set out in Table 1 of Schedule 10.1; and

(b) the earliest **certification** expiry date of any **metering component** in the **metering installation**; and

(c) an appropriate date determined by the **approved test house** taking into account all circumstances and **metering components** in the **metering installation**, **[Rule 5.4 COP D3]**

(3) An **approved test house** must, before it **certifies** a **metering installation**, confirm, for each **metering component** in the **metering installation** other than the following, that the **metering component certification** expiry date is no later than the **metering installation certification** expiry date:

(a) a measuring transformer:

(b) a **meter**:

(c) a **data storage device**:

(d) a **control device**.

(4) Despite subclause (2), an **approved test house** must, for a category 1 **metering installation** to which an **approved test house** applies a statistical sampling process under clause 12, ensure that the expiry date of the **metering installation certification** is no later than the earlier of the date—

(a) determined in accordance with the statistical sampling process used under clause 12; or

(b) falling 180 months after the date of any **notification** under clause 12(5)(b).

14 Interim certification of category 1 metering installations

(1) Despite any provisions of the Code to the contrary, all category 1 **metering installations** that had interim **certification** at the date on which this Part became effective are **certified** on an interim basis until 1 April 2015. **[Rule 4.8 COP D3]**

(2) A **metering equipment provider** must ensure that all **metering installations** that are **certified** on an interim basis at the date this Part became effective are **certified** in accordance with the other relevant provisions of this Part before 1 April 2015.

15 Modification of metering installations

(1) If a **metering installation** is modified, the **certification** of the **metering installation** is cancelled as and with effect from the date the modification began.

(2) Modification of a **metering installation** means any one or more of the following:

(a) reprogramming of software that may effect the operation of the **metrology layer** unless the change was made in accordance with subclause (3); and

(b) installation or removal of, or modification to or of, a **metering component** other than temporary connection of testing or monitoring equipment by using the **test facility**; and

(c) any change to the burdening of a measuring transformer unless changed in accordance with subclause 25(10); and

(d) reconfiguration of any wiring (but not straight replacement of wiring within category 1 **metering installations**); and

(e) relocation of the **meter** or the **metering installation** enclosure other than minor repositioning of the **meter** within the **metering installation** enclosure, or repositioning of the **metering installation** enclosure, that does not involve disconnection of wiring; and

(f) any interference by any person or cause that affects the accuracy of the **metering installation**.

(3) Despite subclause (2)(a), the **certification** of the **metering installation** will not be cancelled if—

(a) reprogramming is approved by an **approved test laboratory**; and

(b) the reprogramming does not or would not be considered, acting reasonably, to affect—

(i) the accuracy of **electricity** measurement or the metrology of the **metering component**; or

(ii) any multipliers or **error compensation** or **loss compensation** factors programmed into the **metering component**; and

(c) the **approved test house** that **certified** the **metering installation** approves the process of reprogramming the **metering installation**; and

(d) the **metering equipment provider** ensures that the reprogramming is carried out in accordance with a documented methodology that has been **audited** under this Part; and

(e) the **metering equipment provider** records in the **metering records** the details of the reprogramming including the time and date.

(4) If a **metering component** is modified or replaced in a **metering installation** that has interim **certification** under clause 14, then—

(a) interim **certification** of the **metering installation** is cancelled from the date of the modification or replacement; and

(b) the **metering equipment provider** responsible for the **metering installation** that contains the **metering component** must ensure that the **metering installation** is **recertified**.

(5) Despite subclause (4), if a modification under this clause is carried out by an **approved test house** to a **metering installation** that involves only the replacement of a **metering component** with another equivalent **certified metering component**, then the interim **certification** referred to in subclause (4) continues to apply to the **metering installation**.

(6) A replacement **metering component** under subclauses (4) or (5) must comply with this Code.

16 Cancellation of certification of metering installations

(1) A **metering equipment provider** must, within 3 **business days** of becoming aware that one of the following events has occurred to a **metering installation** for which it is responsible, update the **metering installation's certification** expiry date in the **registry**:

(a) the **metering installation** being modified otherwise than under subclause 15(3) and 15(5); or

(b) the **metering installation** being classed as defective under—

(i) clauses 10.41 to 10.45; or

(ii) any **audit**; or

(c) the **Authority notifying** the cancellation of the approval of the **approved test house** that **certified** the **metering installation**; or

(d) an **approved test house notifying** of—

(i) a defect in a **reference standard** or **working standard** used in the **certification** process for the **metering installation**; or

(ii) the failure of a group of **meters** in the statistical sampling **recertification** process for the **metering installation**; or

(iii) the failure of a test or **recertification** test for the **metering installation**; or

(e) the manufacturer of a **metering component** used in the **metering installation** determining that the **metering component** does not comply with the standards to which the **metering component** was tested; or

(f) a **metering component** in the **metering installation** failing; or

(g) the inspections of the **metering installation**, required in this Part, not having been carried out; or

(h) if a **metering installation** has been determined to be a lower category and the maximum current conveyed through the **metering installation** exceeding the maximum permitted current for the **metering installation** category as **certified**; or

(i) if a test a **metering installation** has been **certified** under clause 10 and sufficient load is available for full **certification** testing; or

(j) if a **control device** that is included in the **metering installation certification** has been bridged out under clause 26(9).

(2) The cancellation of the **certification** takes effect from the date on which the event set out in subclause (1) occurred.

Accuracy and error calculation

17 Metering installation accuracy

An **approved test house** must, before it **certifies** a **metering installation**, ensure that the **metering installation** does not exceed the maximum permitted error set out in Table 1 of Schedule 10.1. **[Rule 1 of COPD1]**

18 Error Calculation

(1) An **approved test house** must, before it may **certify** a **metering installation**, carry out a calculation of the error of the **metering installation** including an estimate of the **uncertainty** in that error, which calculation must be carried out in accordance with the following:

(a) the calculated error, both plus and minus its **uncertainty**, must not exceed either the maximum permitted positive or negative error specified in Table 1 of Schedule 10.1; and

(b) the **uncertainty** must be calculated at a 95% level of confidence and in compliance with JCGM 100:2008 (evaluation of measurement data – guide to the expression of **uncertainty** in measurement).

(2) The **approved test house** must develop documentation to substantiate the calculation under subclause (1), including the necessary assumptions made under subclause (3). The **uncertainty** must not exceed the maximum site **uncertainty** set out in Table 1 of Schedule 10.1. **[Rule 2 of COP D1]**

(3) The **certifying approved test house** must ensure that—

(a) the calculated error and **uncertainty** in the error of a **metering installation** are calculated taking into account all known influences on the error, for example, current, power factor, voltage, transformer burdens and temperature; and

(b) such error applies to the total quantity of **electricity** conveyed through the **metering installation** over an annual period or such other period, not exceeding 12 months, as would be expected ,acting reasonably on the basis of the historic **metering data** for the specific **metering installation**. **[Rule 2 of COP D1]**

(4) An **approved test house** must, before it **certifies** a **metering installation**, carry out appropriate checks, and **certify**, in accordance with the requirements of Table 1 of Schedule 10.1—

(a) calculations of **overall accuracy** and **uncertainty**; and

(b) data transfers within the **metering installation**.

19 Time keeping requirements

A **metering equipment provider** must ensure that, if a time keeping device that cannot be remotely synchronised controls the switching of **meter** registers in a **metering installation**, the time keeping device must—

(a) have a time keeping error of not greater than 2 seconds per day; and

(b) be synchronised at least once every 12 months.

20 Compensation factors

(1) An **approved test house** must, before it **certifies** a **metering installation** that includes **compensation factors**, ensure that the **compensation factors** are applied—

(a) for **ratio compensation**, only on a **metering installation** of category 1, 2, 3, 4, or 5; or

(b) for **error compensation**, only on a **metering installation** that quantifies **electricity** conveyed through a **point of connection** to the **grid**; or

(c) for **loss compensation**, only on a **metering installation** of category 3, 4, or 5.

(2) An **approved test house** must, when it produces a **certification report** for a **metering installation** that includes a **compensation factor**, separately record the methodology, assumptions, measurements, calculation and details of—

(a) each **compensation factor** that is included within the internal configuration of the **metering installation**; and

(b) each **compensation factor** that must be applied to the **raw meter data** in accordance with subclause (4).

(3) A **metering equipment provider** must, for a **metering installation** under subclause (2)(b)—

(a) if the **point of connection** is an **NSP**, **notify** the **reconciliation participant** of the **compensation factor**; or

(b) in all other cases, **notify** the **registry** of the **compensation factor**.

(4) A **reconciliation participant** must calculate **volume information** using a **compensation factor** that,—

(a) if the **point of connection** is an **NSP**, is recorded in the **metering installation certification report**; or

(b) in all other cases, is recorded in the **registry metering records**.

Installation of metering components in metering installation

General requirements

21 Installation of metering components

(1) An **approved test house** must, before it **certifies** a **metering installation**, ensure that installation of—

(a) measuring transformers, **test facilities**, potential fuses, and switchboard wiring, was carried out by either—

(i) a suitably qualified person (for example by a switchboard manufacturer); or

(ii) an **approved test house**; and

(b) all **metering components**, other than those referred to in paragraph (a), was carried out by an **approved test house**.

(2) An **approved test house** must, before it **certifies** a **metering installation**, ensure that a **measuring transformer** secondary circuit that is earthed, is earthed at no more than one point. **[Rule 3.2 of COPD3]**

22 Reinstallation of metering components

An **approved test house** must, before it **certifies** a **metering installation** that includes a **meter** or **measuring transformer** that had previously been used in another **metering installation**, ensure that an **approved test house** has **recalibrated** the **meter** or measuring transformer.

23 Meter requirements

(1) An **approved test house** must, before it **certifies** a **metering installation**—

(a) determine a **meter certification** expiry date for each **meter** in the **metering installation** in accordance with this clause; and

(b) record the expiry date for each **meter** in the **metering installation** in the **metering installation certification report** and the **meter certification report**.

(2) The **meter certification** expiry date must be no later than the later of the end date of the following periods, calculated from the **commissioning date**:

(a) the **metering installation certification** validity period set out in Table 1 of Schedule 10.1 for the relevant category of **metering installation**; or

(b) the maximum **certification** period specified in the **meter certification report**.

(3) Despite subclause (2), the **meter certification** expiry date for a **meter** that has been **certified** and subsequently installed in, and removed from, a category 1 **metering installation**, must be no later than the **meter certification** expiry date determined for that **meter** when it was installed in the previous category 1 **metering installation**.

(4) Despite subclauses (2) and (3), the **certification** expiry date, for an electromechanical **meter** that was **certified** more than 24 months prior, must be no later than the period equivalent in duration to the maximum **certification** period specified in the **certification report**, after the date on which the **meter** was **certified**.

(5) The **approved test house** must, when **certifying** a **meter**, fully document in the **metering records**—

(a) any regular maintenance required in accordance with the manufacturer's recommendations; and

(b) any maintenance that has been carried out, for example battery monitoring and replacement.

(6) The **metering equipment provider** must ensure that any maintenance documented in the **metering records** is carried out when required.

(7) An **approved test house** must, before it **certifies** a **metering installation** which includes a **meter** or measuring transformer that had previously been used in another **metering**

installation, ensure that the **meter** or measuring transformer has been **recalibrated** by an **approved calibration laboratory**, **approved test laboratory**, or **approved test house**.

24 Measuring transformer requirements

An **approved test house** must, before it **certifies** a **metering installation**, ensure that—

(a) a **metering installation** using a measuring transformer is fitted with a **test facility** and provision for isolation, which must be installed as close to the **meter** as practicable in the circumstances; and **[Rule 3.7 COPD3]**

(b) a new or replacement **test facility** has a transparent cover.

25 Measuring transformer certification requirements

(1) An **approved test house** must, before it **certifies** a **metering installation**—

(a) under the fully **calibrated** procedure in clause 9, ensure that it uses the measuring transformer's actual accuracy (rather than class accuracy) when calculating the maximum permitted error set out in Table 1 of Schedule 10.1; and

(b) under the fully **calibrated** procedure in clause 9, ensure that the accuracy of measuring transformers are appropriate for the **metering installation** to meet the maximum permitted error set out in Table 1 of Schedule 10.1; and

(c) carry out primary injection tests if it considers it is appropriate; and.

(d) ensure that a measuring transformer is—

(i) mounted securely, and

(ii) if practicable, in an enclosure that can be sealed against unauthorised access; and **[Rule 3.5 of COPD3]**

(e) if the **metering installation** is of category 2, 3, 4, or 5, ensure that—

(i) current transformers are connected only to the **meter** with no connections to other systems; and

(ii) voltage transformers have no connections to other systems; and

(f) ensure that any voltage supplies from a voltage transformer to a **meter** are protected by appropriately rated fuses or **circuit breakers** dedicated to the supply to the **meter**; and

(g) ensure that all fuses and **circuit breakers** are sealed or located in sealed enclosures; and

(h) ensure that, if an enclosure also contains fuses or **circuit breakers** supplying other circuits, those supplying **metering** circuits are individually sealed. **[Rule 3.5 COPD3]**

(2) Despite subclause (1)(d), if access to the enclosure is required by any person other than an employee or subcontractor of an **approved test house**, an **approved test house** may use alternative sealing arrangements. For example, it may use terminal studs drilled in

such a way that sealing wire can be passed through the holes to secure the connections or the use of sealing paint applied to terminal screws.

(3) Despite subclause (1)(e)(ii), the **approved test house** may **certify** a **metering installation**—

(a) if voltage transformers are connected to multiple **meters**; and

(b) if the **approved test house** confirms in the **metering installation certification report** that the accuracy of the **metering installation** with a shared voltage transformer remains within the maximum permitted error set out in Table 1 of Schedule 10.1.

(4) Despite clause 2(1)(c)(ii) of Schedule 10.8, an **approved test house** may **certify** a **metering installation** at a **point of connection** to the **grid** that includes **error compensation** factors as an alternative to the use of burden resistors, only if the **approved test house**, before it **certifies** the **metering installation**, is satisfied the **error compensation** factors provide a more accurate result than the use of burden resistors.

(5) An **approved test house** must, if a change in **compensation factor** in the design report is required to **certify** a **metering installation**, **notify** the **metering equipment provider** for the **metering installation** who must, within 20 **business days** of receiving the **notification**, investigate and document in the **metering records** any changes in **compensation factors** in the design report.

(6) An **approved test house** must, before it may add or change any burden or **compensation factor**—

(a) document in the **metering records** the reason for the proposed addition or change; and

(b) obtain the **metering equipment provider's** prior approval, which may be withheld in the **metering equipment provider's** absolute discretion.

(7) No **participant** other than the **approved test house** under subclause (6) may add or change any burden or **compensation factor**.

(8) If the **metering equipment provider notifies** its approval to the addition or change of the burden or **compensation factor** of a measuring transformer, it must ensure that the **metering installation** is **recertified** by an **approved test house** for the change in burden or **compensation factor** before the addition or change becomes effective.

(9) A **metering equipment provider** must, before it may approve the addition or change to the burden or **compensation factor** of a measuring transformer,—

(a) consult with the **approved test house** who carried out the most recent **certification**; and **[Rule 3.5 COPD3]**

(b) ensure that the **approved test house certifies** the **metering installation**.

(10) Despite subclause (6)(b), an **approved test house** may change the burden on a voltage transformer, without being required to obtain the approval of the **metering equipment provider**, if the **approved test house** confirms that the difference between the new burden and the burden at the time of the most recent **metering installation certification** is—

(a) less than or equal to one thirtieth of the rating, in VA, of the voltage transformer if the voltage transformer is rated at less than 30 VA; or

(b) no greater than 1 VA, if the voltage transformer is rated at equal to or greater than 30 VA. **[Rule 3.5 COPD3]**

(11) An **approved test house** must, before it **certifies** a **metering installation** containing a measuring transformer—

(a) determine, in accordance with this clause, a measuring transformer **certification** expiry date; and

(b) record the expiry date in the **metering installation certification report**.

(12) The measuring transformer **certification** expiry date must be no later than the last day of a period equivalent to the measuring transformer **certification** validity period specified in the measuring transformer **certification report** after the **commissioning** date.

26 Control device requirements

(1) A **metering equipment provider** must ensure that a **control device** is **certified** by an **approved test house** before the **metering equipment provider** uses the **control device** for any purpose under Part [J] to either—

(a) control a load; or

(b) switch **meter** registers.

(2) An **approved test house** must, before it **certifies** a **metering installation** containing a **control device** that is required to be **certified** under subclause (1), assess the likelihood of the **control device** not receiving control signals, in order to determine the likelihood that it would cause a material risk to the reliability of the **control device**.

(3) An **approved test house** must, if it believes the likelihood of the **control device** not receiving control signals would cause a material risk to the reliability of that **metering installation**, **notify** the **metering equipment provider** of its concern, including all relevant details.

(4) The **metering equipment provider** must, as soon as reasonably practicable, and at least within 3 **business days** after receiving **notification** under subclause (3), **notify** the relevant **retailer** and **distributor**.

(5) The relevant **distributor** must, as soon as reasonably practicable, and at least within 3 **business days** after receiving **notification** under subclause (4), **notify** the **metering equipment provider** and the relevant **retailer**, whether it believes that the likelihood of control signals not being received by the **control device** would reasonably be expected to cause a material risk to the reliability of the **control device**.

(6) The **approved test house** must only install the **control device** if it is satisfied that the likelihood of control signals not being received by that **control device** is not a material risk to the reliability of that **control device**.

(7) An **approved test house** must, before it **certifies** a **metering installation** that includes a **control device** that is used to either control load or switch **meter** registers or both, check that the **control device** is—

(a) able to receive signals, as required under subclause (2); and

(b) correctly connected; and

(c) correctly programmed.

(8) An **approved test house** must, before it **certifies** a **metering installation** that includes a **control device** that must be **certified** under subclause (1), check that the **control device** has a dedicated power supply unless it is integrated with another **metering component**. **[Rule 3.4 of COPD3]**

(9) A **participant** must, within 3 **business days** of bridging out a **control device**, provide **notification**, that details the actions taken, to—

(a) the relevant **retailer**; and

(b) the relevant **metering equipment provider**.

(10) A **metering equipment provider** must,—

(a) within 3 **business days** of becoming aware of a **control device** having been bridged out or having become defective, ensure that an **approved test house** visits the **metering installation** to repair or replace the **control device**; and

(b) within 10 **business days** of becoming aware of a **control device** having been bridged out or having become defective, repair or replace the **control device**.

(11) An **approved test house** must, before it **certifies** a **metering installation** that includes a **control device** that must be **certified** under subclause (1), ensure that the **certification report** includes—

(a) confirmation that the **control device** complies with the standards set out in Table 4 of Schedule 10.1 and

(b) the details and results of any test that has been carried out; and

(c) confirmation that the tests have been passed by the **control device**.

(12) An **approved test house** must, before it may **certify** a **metering installation** that contains a **control device** that must be **certified** under subclause (1)—

(a) determine a **control device certification** expiry date for each **control device** in the **metering installation** in accordance with this clause; and

(b) record the expiry date in the **metering installation certification report**.

(13) The **control device certification** expiry date must be no later than the last day of a period equivalent to the **control device certification** validity period specified in the **control device certification report** after the **commissioning** date.

27 Data storage device requirements

(1) An **approved test house** must, before it **certifies** a **metering installation**, ensure that each **data storage device** it installs in the **metering installation**—

(a) is installed so that on site **interrogation** is possible without the need to interfere with seals; and **[Rule 3.4 of COPD3]**

(b) has a dedicated power supply unless the **data storage device** is integrated with another **metering component**. **[Rule 3.4 of COPD3]**

(2) An **approved test house** must ensure that each **data storage device** it installs is **metering component certified** in accordance with this Part.

(3) An **approved test house** must, before it **certifies** a **metering installation**, ensure that each of its **data storage devices**—

(a) is compatible with the other **metering components** of the **metering installation**; and

(b) is suitable for the electrical and environmental site conditions in which it is installed; and

(c) complies with the relevant parts of the IEC standards set out in Table 4 of Schedule 10.1, applicable to a **metering installation** that would be used in the same location; and

(d) has memory capacity and functionality that is suitable for the proposed functions of the **data storage device** specified in the design report; and

(e) has all of its outputs/inputs suitably isolated and rated for purpose; and

(f) has no outputs that will interfere with the operation of the **metering installation**; and **[Rule 4.2 of COP D4]**

(g) records periods of data identifiable or deducible by both date and time on **interrogation**; and **[Rule 4.3.1 of COP D4]**

(h) availability of memory for a period that is suitable for the proposed functions as set out in the design report, and at least for a minimum continuous period of 15 days; and

(4) An **approved test house** must, before it **certifies** a **metering installation**, record in the **metering installation certification report**, the maximum **interrogation** cycle for the **data storage device**.

(5) The maximum **interrogation** cycle for a **metering installation** is the shortest of the following periods:

(a) the period of data loss protection; and

(b) the period of memory availability given the **data storage device** configuration; and

(c) the period in which the accumulated drift of a **data storage device** clock is expected to exceed the maximum time error set out in Table [1] of Schedule [J2] of Part J] for that category of **metering installation**.

(6) An **approved test house** must, before it **certifies** a **metering installation** containing a **data storage device**,—

(a) determine a **data storage device certification** expiry date for each **data storage device** in the **metering installation** in accordance with this clause; and

(b) record the expiry date in the **metering installation certification report**.

(7) The **data storage device certification expiry date** must be—

(a) for a **data storage device** that is integral to a **meter**, no later than the **meter certification** expiry date; or

(b) for a **data storage device** that is not integral to a **meter**, no later than the earlier of either—

(i) the **commissioning** date plus the **data storage device certification** validity period specified in the **data storage device certification report**; or

(ii) the **meter certification** expiry date.

(8) A **metering equipment provider** must ensure that, if it proposes to change the resident software, ROM or firmware of a **data storage device** already installed in a **metering installation**, before the change is carried out, an **approved test laboratory**—

(a) tests to confirm that the integrity of the measurement and logging of the **data storage device** would be unaffected by the proposed change; and

(b) documents the methodology and conditions necessary to implement the proposed change.

(9) An **approved test house** must, when implementing a proposed change described in subclause (8)—

(a) carry out the change in accordance with the documented methodology and conditions referred to under subclause (8)(b); and

(b) provide the **metering equipment provider** with a list of **data storage devices** to which the change was made.

28 Test results

(1) An **approved test house** must, before it **certifies** a **metering installation** or any of its **metering components**, review the relevant test results for each **metering component** to ensure that—

(a) the **metering component** passed all the tests; and

(b) it meets the requirements for **certification**.

(2) If the **approved test house** considers that the test results show that the requirements under subclause (1) for **certification** of that **metering installation** are not met, it must, within 1 **business day** of reviewing the tests, **notify** the relevant **metering equipment provider** providing detailed reasons.

29 Certification stickers

(1) An **approved test house** must, if it has **certified** a **metering installation** under this Schedule, confirm the **certification** by attaching a **metering installation certification sticker** as close as practicable to (including, if practicable, on) the **meter** while maintaining reasonable visibility of the **certification sticker** and the **meter**. **[Rule 4.4 of COP D3]**

(2) An **approved test house** attaching a **metering installation certification sticker** must ensure that it shows—

(a) the name of the **approved test house** that **certified** the **metering installation**; and

(b) the **certification** date of the **metering installation**; and

(c) the **metering installation certification** expiry date; and

(d) the **metering installation** category for which the **metering installation** has been **certified**; and

(e) the **ICP** identifier for the **metering installation**; and

(f) any other information that the **Authority** may, from time to time, **notify**.

(3) Despite subclause (1), an **approved test house** must, when **certifying** a **metering installation** and if attaching a **metering installation certification sticker** as required under subclause (1) is not practicable, devise and use an alternative means of documenting, providing and maintaining information in a manner at least equivalent in its effect to that provided by the **certification sticker** system.

(4) An **approved test house** must, when **certifying** a **metering installation** that includes a **metering component** that does not have a **certification sticker** attached—

(a) obtain the **metering component certification sticker** required under clause 11 of Schedule 10.8; and

(b) attach it next to the **metering installation certification sticker**.

30 Enclosures

An **approved test house** must, before it **certifies** a **metering installation**, ensure that, if any of the **metering components** in the metering installation are housed in enclosures, the enclosures are—

(a) appropriate to the environment in which they are located; and

(b) have a warning label attached stating that—

(i) the enclosure houses **metering components**; and

(ii) only an **approved test house** may open the enclosure.

Replacement of metering installations or metering components

31 Replacement of metering installations or metering components

(1) If a person who uses or accesses a **metering installation** or a **metering component**, or any **metering data** from a **metering installation**, wishes to initiate a change in the functionality of the **metering installation**, it must—

(a) **notify** the **metering equipment provider**, providing all relevant details; and

(b) respond within 3 **business days** to any queries that the **metering equipment provider** may **notify**.

(2) If a **metering equipment provider** proposes to change a **metering installation** or a **metering component**, it must—

(a) ensure that an **approved test house** carries out an analysis of any change in the functionality of the **metering installation** as a result of the proposed change; and

(b) consult with each user of the **metering installation**, or the **metering data** produced by the **metering installation**, **notifying** them of the analysis of the **approved test house** carried out under subclause (a); and

(c) take into account any representations made by any such user.

(3) Despite any contract between a **participant** and any other person, a **metering equipment provider** may replace a **metering installation** or **metering component** with a **metering installation** or **metering component** (as the case may be)—

(a) if a user has requested an enhancement, then the incremental costs associated with providing that enhancement, should be met by the user requesting the enhancement. The level of functionality must be the same as, or better than, the functionality of the **metering installation** or **metering component** being replaced, provided that there is no increase in the direct or indirect cost payable by an end user of the relevant **metering installation** or **metering data** from the **metering installation**, unless the user has consented to an increase; and

(b) with a lower level of functionality, or an increase of the direct or indirect costs payable by a user of the **metering installation** or **metering data** obtained from the **metering installation**, only if each user of the **metering installation** or the **metering data** from the **metering installation notifies** the relevant **metering equipment provider** that it consents to the replacement (provided that consent must not be unreasonably or arbitrarily withheld or delayed).

(4) If a **metering equipment provider**, as part of the contract referred to in subclause (3) gives any assurance as to minimum levels of functionality for a **metering installation**, the **metering equipment provider** must ensure that the **metering installation** performs to at least the minimum specified level of functionality.

(5) If agreement is reached between the **metering equipment provider** and users of the **metering installation** or any **metering data** from the **metering installation** to a change of functionality, then the **metering equipment provider** must ensure that an **approved test house** modifies the **metering installation** in accordance with this Part within an agreed time frame.

(6) A **metering equipment provider** who replaces a **metering installation** or a **metering component** under this clause must ensure that there is no interruption to the **metering data** produced by the **metering installation** at the relevant **ICP** or **NSP**.

Certification of metering components

32 Metering components must be certified

(1) An **approved test house** must, before it may **certify** a **metering installation**, ensure that the following **metering components**, if included in the **metering installation**, have been **certified** by an **approved test house** and since **certification**, have been appropriately stored and not used:

(a) a **meter**:

(b) a **measurement transformer**:

(c) a **data storage device**:

(d) a **control device.**

(2) Despite subclause (1), an **approved test house** may **certify** a category 1 **metering installation** that contains a **meter** which has been **certified** and subsequently installed in, and removed from, another category 1 **metering installation**, in which case, the **approved test house** must—

(a) be satisfied that external factors have not been detrimental to the accuracy of the **meter**; and

(b) confirm that the date on which the **meter** was previously installed is less than 12 months before the **commissioning** date of the **metering installation** that the **approved test house** is **certifying**.

33 Test results

If the **approved test house** considers, acting reasonably, that the **metering component** test results show that the requirements for **certification** of that **metering installation** are not met, it must **notify** the relevant **metering equipment provider** providing detailed reasons within one **business day**.

Inspection requirements

34 General inspection requirements

(1) An **approved test house** must, when carrying out an inspection of a **metering installation**—

(a) check and confirm if the **data storage device** is operational in accordance with the requirements of this Part; and **[Rule 7.3.3 COP D3]**

(b) check and confirm if the expected remaining lifetime of each battery will meet or exceed the **metering installation certification** expiry date; and **[Rule 7.3.4 COP D3]**

(c) ensure no modifications under clause 15 have been made to the **metering installation** without the change having been documented and **certification** requirements satisfied; and **[Rule 7.3.7 of COP D3]**

(d) visually inspect all seals, enclosures, **metering components** and wiring of the **metering installation** for evidence of damage, deterioration or tampering; and**[Rule 7.3.8 of COP D3]**

(e) ensure that the **metering installation** and, if relevant, **metering components** carry appropriate **certification stickers** in accordance with the requirements of clause 29; and

(f) record the following information—

(i) **metering installation certification** expiry date; and

(ii) **metering component** serial numbers.

(2) An **approved test house** must, for every inspection of a **metering installation** that it carries out, prepare an inspection report that details—

(a) the checks that were carried out; and

(b) the results of the checks; and

(c) any actions taken to remedy with a breach of this Part; and

(d) the name and signature of the person who carried out the inspection.

(3) If an **approved test house** has not performed an inspection of a **metering installation** within the specified timeframe under clause (35)(1)(a) or (36)(1), the **certification** of the **metering installation** is cancelled on the date by which the **metering installation** was required to have been inspected.

(4) A **metering equipment provider** must—

(a) undertake a comparison of the information recorded under subclause (1)(f) and its own records; and

(b) investigate and correct any discrepancies found under paragraph (a); and

(c) within 3 **business days** of finding a discrepancy, **notify** the **registry** under clause 7 of Schedule E3 of Part [E].

35 Category 1 inspection requirements

(1) A **metering equipment provider** must, for each period between 1 January and 31 December, ensure that—

(a) each of its category 1 **metering installations** has been inspected, by an **approved test house**, within 90 months of being **certified**; or

(b) a sample, selected in accordance with subclause (3), of its category 1 **metering installations** has been inspected by an **approved test house**.

(2) A **metering equipment provider** must in addition to any obligations under subclause (1), if the option followed under subclause (1) changes, between consecutive 1 January and 31 December periods, from—

(a) subclause (1)(a) to (1)(b), ensure that any category 1 **metering installation** due for inspection within the 78 months following the change is inspected, by an **approved test house**, within 90 months of being **certified**; or

(b) subclause (1)(b) to (1)(a) and the quantity identified under subclause (3)(c) was no less than 50, ensure that, for the 5 next 1 January to 31 December periods, the number of inspections performed does not fall below the quantity identified under subclause (3)(c).

(3) A **metering equipment provider** must, if it proceeds under paragraph (1)(b), select its sample by—

(a) producing a list of all **ICP identifiers** for category 1 **metering installations** for which the **metering equipment provider** has, at that time, its **participant identifier** recorded in the **registry**; and

(b) removing from the list referred to in paragraph (a) any **ICP identifiers** where the **metering installations** have been **certified** or inspected in the previous 90 months from the date on which the list was produced; and

(c) identifying the relevant required sample size set out in Table 7 of Schedule 10.1, based on the number of **ICP identifiers** on the list in paragraph (a); and

(d) randomly selecting the required sample from the list produced under paragraph (b)

(4) An **approved test house** must, when carrying out an inspection of a category 1 **metering installation**—

(a) perform the checks set out in clause 34(1); and

(b) check and confirm there is no difference between the volume of **electricity** recorded by the master accumulation register of a **data storage device** ,the sum of the **meter** registers.

(5) A **metering equipment provider** must, for each inspection of a category 1 **metering installation** conducted under subclause (1)(b), keep records that detail—

(a) the estimated gross over and under recording at that **metering installation**; and

(b) the estimated duration of the inaccuracy (if any); and

(c) a description of the nature of the inaccuracy identified; and

(d) any discrepancies identified under clause (34)(4), regardless of whether inaccuracy of the **metering installation** resulted; and

(e) relevant characteristics, sufficient to enable reporting that identifies any correlations or relationships between inaccuracy and characteristics for example the **meter** make, model, and **network** area, for each **metering installation**; and

(f) the procedure used, and the lists generated to select a sample in accordance with subclause (2).

(6) A **metering equipment provider** must, annually by 1 April, provide a report in the **prescribed form** to the **Authority** that states whether the **metering equipment provider** has, for the previous 1 January to 31 December period, inspected its category 1 **metering installations** under—

(a) subclause (1)(a), in which case the report must also include, in relation to the previous 1 January to 31 December period—

(i) a list of **ICP identifiers** which had **metering installations** that fell due for inspection, the dates by which they were due for inspection, and the dates on which they were inspected; and

(ii) a summary of the general state of compliance of all category 1 **metering installations** inspected; and

(iii) the detailed records required under paragraphs (5)(a) to (5)(d); or

(b) subclause (1)(b), in which case the report must also include, in relation to the previous 1 January to 31 December period—

(i) the quantities identified under subclause (3)(a) to (3)(c); and

(ii) a summary of the general state of compliance of all category 1 **metering installations** inspected; and

(iii) the detailed records required under subclauses (5)(a) to (5)(d).

36 Category 2-5 inspection requirements

(1) A **metering equipment provider** must ensure that inspections of category 2, 3, 4 or 5 **metering installation** are carried out by an **approved test house** at least once within the period specified in Table 1 of Schedule 10.1. **[Rule 7.1 of COP D3]**

(2) An **approved test house** must, when conducting inspections of category 2, 3, 4 or 5 **metering installation**, conduct the following checks:

(a) the checks specified by clause 34(1); and

(b) visual inspections of all measuring transformers for damage, tampering or defect; and

(c) check of the position of the current transformer tap to ensure that it is still appropriate for the expected maximum current for that **metering installation**; and **[Rule 7.3.2 of COPD3]**

(d) check for the presence of appropriate voltages at the **metering installation**; and

(e) check for the correct operation of all voltage circuit alarms and fault indicators. **[Rule 7.3.3 COP D3]**

Sealing

37 Sealing [rule 9 COP D3]

(1) An **approved test house** must, before it may **certify** a **metering installation**, ensure that each **metering component** in the **metering installation**, that could affect the accuracy or reliability of the **metering installation**, is sealed.

(2) An **approved test house** must, before leaving the **metering installation** unattended, ensure that all parts and connections of a **data storage device** that are contained in, or attached to, the **metering installation** are sealed, with the exception only of a port for on site reading that must not be capable of carrying out any other function. **[Rule 4.6.2 of COP D4]**

(3) An **approved test house** must, before it **certifies** a **metering installation**, ensure that the main switch cover is sealed if the main switch—

(a) is on the supply side of the **metering installation**; and

(b) has provision for sealing.

(4) An **approved test house** must, when applying a seal to a **metering component** in an enclosure, attach a label in a prominent position inside the enclosure, warning—

(a) of the presence of a sealed **metering component** in the enclosure; and

(b) that care must be taken not to disturb the connection to the **metering component**.

(5) An **approved test house** must use a sealing system that enables the following information to be determined:

(a) the **approved test house** that affixed the seal; and

(b) the person (or the sealing tool) that applied the seal; and

(c) when the seal was applied.

(6) A **participant** who removes or breaks a seal must, within 3 **business days**, **notify** the relevant **metering equipment provider** of the removal or breakage and the reason why this occurred. **[Rule 9 COP D3]**

(7) A **participant** who becomes aware that another person has removed or broken a seal, must, within 3 **business days**, **notify** the **metering equipment provider**.

(8) A **metering equipment provider** must, if it receives **notification** under subclause (7)—

(a) use all reasonable endeavours to ascertain—

(i) who removed or broke the seal; and

(ii) the reason for the removal or breakage; and

(b) arrange, within 3 **business days** of receipt of such **notification**, for an **approved test house** to carry out, as soon as practicable, an inspection of the removal or breakage, and any work required to remedy the removal or damage.

(9) An **approved test house** must, when investigating a removal or breakage under subclause (8)(a), assess the accuracy and continued integrity of the **metering installation** and—

(a) if, in its opinion, the accuracy and continued integrity is unaffected, replace the broken seals; or

(b) if, in its opinion, the accuracy and continued integrity is affected, replace the broken seal and **notify** the **metering equipment provider** under clause 10.41 to 10.45. **[Rule 9 COP D3]**

Schedule 10.8

Metering component requirements

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Meters

1 Meters

(1) An **approved test house** must, before it **certifies** a **meter**,—

(a) have obtained a **calibration report** from an **approved calibration laboratory**, **approved test laboratory**, or **approved test house**, confirming that the **meter** conforms to its stated class, as determined by appropriate sample testing of manufacturing runs; and

(b) ensure that an **approved test laboratory** has conducted **type-testing** that it considers appropriate for that model and version of **meter**, and produced a **type-test** certificate that confirms—

(i) the **meter's** technical characteristics; and

(ii) the range of environmental conditions within which the **meter** has been proven accurate and reliable; and

(iii) that the **meter** performs the functions for which it was designed; and

(iv) that the **meter** complies with the requirements of this Part; and

(v) the tests undertaken and the reasons why the **approved test laboratory** considers that they are appropriate; and **[Rule 3 of COP D4]**

(c) ensure that the **meter calibration report** details—

(i) that the **meter** complies with the standards set out in Table 4 of Schedule 10.1; and

(ii) the tests performed and the results of those tests; and

(iii) that the **meter** has passed the tests; and

(iv) any recommendations on **error compensation**.

(d) ensure that it produces a **meter certification report** that includes—

(i) the maximum **certification** period for the class of **meter**, as specified in subclause (2); and

(ii) the battery maintenance requirements; and

(iii) the **meter calibration report**.

(2) For the purposes of subclause (1)(d), the maximum **certification** period for—

(a) a class 0.2 **meter**, is 36 months:

(b) a class 0.5 **meter**, is 60 months:

(c) a class 1.0 **meter**, is 120 months:

(d) a class 2.0 **meter**, is 180 months.

(3) A **certifying approved test house** must ensure that the percentage values in the applicable of either Table 5 or Table 6 of Schedule 10.1 of current are relative to the **meter's** base or rated current (I_b or I_n) as appropriate, and it is assumed that this current would be selected at a level appropriate to the specific site where the **meter** is to be installed.

Measuring transformers

2 Measuring transformer certification requirements

(1) An **approved test house** must, before it **certifies** a measuring transformer,—

(a) ensure, by way of testing, that a measuring transformer measures accurately at the connected burden; and

(b) for all multi-tap current transformers, test and, **certify** multi-tap current transformers only for the ratios that have been **calibrated**—

(i) if it considers that the test is passed; and

(ii) if it considers that the tap settings are appropriate for the maximum current conveyed; and

(c) if a burden is lower than a test point specified in a nominated standard, either—

(i) seek confirmation of accuracies from measuring transformer manufacturers; or

(ii) ensure that burden resistors are used to correct measuring transformers; and

(d) ensure that the total burden (magnitude and phase angle, where appropriate) on any measuring transformer does not exceed its—

(i) name plate rating; or

(ii) an alternative rating lower than the name plate rating, if specified in the **metering installation** design report. **[Rule 3.5 COPD3]**

(2) An **approved test house** must, before it **certifies** an epoxy insulated current transformer, ensure that the **certification** tests allow for, and the **metering installation certification** records show, age, temperature and batch.

3 Alternative method for certifying measuring transformer

(1) An **approved test house** may, on one occasion only for each **metering installation**, and only if it considers that it cannot comply with the requirements of this subclause or clause 2 due solely to its inability to access to test an installed measuring transformer, **certify** the **metering installation** for a period not exceeding 24 months, if—

(a) the **approved test house** is satisfied, having made due enquiry, that not testing and measuring the accuracy of the measuring transformer cannot affect the accuracy of the **metering installation** such that the **metering**

installation would be reasonably expected to comply with the applicable accuracy requirements as set out in Table 1 of Schedule 10.1; and

(b) the **approved test house** has **notified** the **metering equipment provider**; and

(c) the **metering equipment provider** has **notified** the **market administrator** in accordance with subclause (2).

(2) The **metering equipment provider** must, if a **metering installation** for which it is responsible has been **certified** under subclause (1),—

(a) by no later than 5 **business days** after the date of **certification** of the relevant **metering installation**, **notify** the **market administrator** in the **prescribed form** of—

(i) all relevant details of the **metering installation**; and

(ii) the reason or reasons why, in the **approved test house's** opinion which must be reasonably held, the measuring transformer could not be tested; and

(iii) the reason or reasons why in the **approved test house's** opinion that must be reasonably held, the accuracy of the **metering installation** cannot be affected in a way which would be in breach of the applicable accuracy requirements set out in Table 1 of Schedule 10.1; and

(iv) the **metering installation certification** expiry date; and

(v) the steps being taken to **certify** the **metering installation** in accordance with the applicable requirements set out in Table 1 of Schedule 10.1; and

(b) respond, within 5 **business days**, to any requests from the **market administrator** for additional information; and

(c) ensure that all of the details are recorded in the **metering installation certification report**.

(3) If an **approved test house** relies on the **certification** process in subclause (1), the **metering equipment provider** must take all steps to ensure that the relevant **metering installation** is **certified** in accordance with all other applicable requirements of this Part.

4 Measuring transformer certification report

(1) An **approved test house** must, before it **certifies** a measuring transformer—

(a) determine, in accordance with this clause, a measuring transformer **certification** expiry date; and

(b) record the validity period in the measuring transformer **certification report**.

(2) An **approved test house** must, before it **certifies** a measuring transformer, produce a **certification report** that—

(a) includes a **calibration report**, from an **approved calibration laboratory**, **approved test laboratory**, or **approved test house**, that—

(i) confirms that the measuring transformer conforms to its stated class, as determined by appropriate testing; and

(ii) describes the details and results of any test that has been carried out; and

(b) confirms that the **measuring transformer** complies with the standards set out in Table 4 of Schedule 10.1, or an alternative standard approved in writing by an **approved calibration laboratory** as being equivalent to or better than those standards; and

(c) describes the details and results of any test that has been carried out; and

(d) specifies the measuring transformer **certification** validity period that the **approved test house** considers appropriate, which must be no more than 120 months; and

(e) confirms it has inspected the manufacturer's test certificates and carried out whatever additional tests it considers necessary to satisfy itself that the measuring transformer and **metering installation** meet the accuracy requirements of this Code.

(3) The **certifying approved test house** must, upon request, provide to an **auditor** evidence of a measuring transformer's compliance with the standards set out in Table 4 of Schedule 10.1.

Control devices

5 Certification of control devices

(1) A **metering equipment provider** must ensure that a **control device** is **certified** by an **approved test house** before the **metering equipment provider** uses the **control device** for any purpose under Part [J] to either—

(a) control a load; or

(b) switch **meter** registers.

(2) The **control device certification** expiry date must be no later than the last day of a period equivalent to the **control device certification** validity period specified in the **control device certification report** after the **commissioning** date.

(3) An **approved test house** must, before it may **certify** a **control device**, produce a **certification report** that—

(a) confirms that the **control device** is compliant with the relevant standards Schedule 10.1; and

(b) confirms that the **control device** is operable and fit for purpose; and

(c) includes the details and results of any test that has been carried out; and

(d) confirms that the **control device** has passed such tests; and

(e) confirms the **control device certification** validity period that the **approved test house** considers appropriate, which must be no more than 180 months.

Data storage devices

6 Certification requirements for data storage devices

(1) An **approved test house** must, before it **certifies** a **data storage device**, produce a **certification report** that confirms for the version of **data storage device**—

(a) that the **data storage device** complies with the standards set out in Table 4 of Schedule 10.1; and

(b) the range of environmental conditions within which it has been proven accurate and reliable; and

(c) that it complies with the requirements of this Part; and

(d) the tests performed, which must include mandatory **type-testing** and the results of those tests; and

(e) the battery maintenance requirements; and

(f) that each period of data is identifiable or deducible by both date and time on **interrogation**; and **[Rule 4.3.1 of COP D4]**

(g) that the time and date of all relevant event conditions are recorded in an **event log**, including—

(i) a loss of the power supply to the **data storage device** occurs; and **[Rule 4.3.2.1 of COP D4]**

(ii) critical internal alarms such as memory integrity checking, battery low, battery failed and tampering; and **[rule 4.3.2.3 of COP D4**

(iii) phase failure to the **meter**, if the **data storage device** is integral to the **meter**; and

(iv) any **software** configuration changes; and

(v) results of time setting comparisons and synchronisations; and

(vi) the transition from, and to, **New Zealand daylight time**, if the **data storage device** operates in **New Zealand daylight time**; and

(h) has the required memory capacity available, as set out in the **type-test**, and in any case must not be less than 15 days; and

(i) functionality for time synchronisation, in response to an authorised instruction from an **interrogation** system; and

(j) all information logged is referenced to **New Zealand Standard Time** or **New Zealand Daylight Time**; and **[Rule 4.5 of COP D4]**

(k) data loss protection providing a continued clock and memory operation when the power supply to the **data storage device** is lost for a minimum continuous period of 15 days; and **[Rule 4.3.3 of COP D4]**

(l) the **data storage device certification** validity period that the **approved test house** considers appropriate, which must be no more than 180 months.

(2) For the purposes of subclause (1), a new version of the **data storage device** includes any change to the specification, hardware or resident software of a **data storage device**.

Communication equipment

7 Communication equipment requirements

A **metering equipment provider** must ensure that the use of its **communications equipment** complies with the compatibility and connection requirements of any **communications network** operator to whose **communication network** it has **communication equipment** connected. **[Rule 5.2 of COPD3]**

Wiring

8 Wiring

(1) An **approved test house** must, before it **certifies** a **metering installation**, ensure that all wiring in the **metering installation** is—

(a) suitable for the environment; and

(b) fit for purpose; and

(c) securely fastened; and

(d) compliant with all applicable requirements and enactments.

(2) An **approved test house** must, before it **certifies** a **metering installation**, ensure that the wiring between a **measuring transformer** and another **metering component** in the **metering installation**—

(a) is run as directly as practicable; and

(b) is appropriately sized and protected; and

(c) does not include intermediate terminations for any measuring transformer circuits unless impracticable, in which case the **approved test house** must ensure that the intermediate terminations are—

(i) sealed or in a sealed enclosure; and

(ii) located in a secure position; and

(iii) recorded in the **metering installation certification report**; and

(d) includes conductors that are clearly and permanently identified, by the use of any one or more of the following:

(i) colour coding:

(ii) marker ferrules:

(iii) conductor numbering. **[Rule 3.3 of COPD3]**

Fuses and circuit breakers

9 Fuses and circuit breakers

An **approved test house** must, before it may **certify** a **metering installation**, ensure that all fuses and **circuit breakers** are—

(a) appropriately rated for the electrical duty and discrimination required; and

(b) clearly labeled and either—

(i) individually sealed; or

(ii) located in sealed enclosures. **[Rule 3.5 COPD3]**

Test results

10 Test results

(1) An **approved test house** must, before it **certifies** a **metering component**, review the relevant test results for the **metering component** to ensure that it meets the requirements for **certification**.

(2) An **approved test house** may, if it is satisfied that a manufacturer's own batch testing facility is of an acceptable standard, use batch test certificates from the manufacturer to **certify** a **meter** or a measuring transformer. If an **approved test house** does this, it must record in the **metering component certification report**—

(a) that **certification** was based on batch test certificates; and

(b) its confirmation that the manufacturer's batch testing facility is, in its view, of an acceptable standard.

Certification Stickers

11 Metering component certification stickers

(1) An **approved test house** must, when completing **certification** of a **metering component**, confirm such **certification** by attaching a **metering component certification sticker** to the **metering component** or, if not practicable, provide the sticker with the **metering component**.

(2) An **approved test house** attaching a **metering component certification sticker** must ensure that the sticker shows—

(a) the name of the **metering component owner**; and

(b) the name of the **approved test house**, the **approved calibration laboratory** or the **approved test laboratory** who **calibrated** the **metering component**; and

(c) the name of the **approved test house**, the **approved calibration laboratory** or the **approved test laboratory** who **certified** the **metering component**; and

(d) the date on which the **metering component** was **certified**; and

(e) the **certification** validity period; and

(f) that the component is electrically safe; and

(g) the initials or other unique identifier of the individual who carried out the **certification** of the **metering component**.

(3) An **approved test house** must ensure that a **certification sticker** it attaches is—

(a) made of weather-proof material; and

(b) permanently attached; and

(c) filled out using permanent markings. **[Rule 4.4 of COP D3]**

On site calibration

12 On site calibration method

(1) An **approved test house** must only **recalibrate** a measuring transformer or **meter** on site by attaching a **working standard** through a separate **calibrated** measuring transformer to the **metering installation** and testing the accuracy of each measuring transformer and **meter** within the **metering installation**.

(2) If an **approved test house** is unable to attach a measuring transformer to the **metering installation** it must not be **calibrated** on site.

(3) An **approved test house** must carry out the on site **calibration** tests that it considers are appropriate in the circumstances for the **meter** or measuring transformer being **recertified**.