

Reference number(s)	011 - Raw Meter Data and Compensation Factors
Relevant clause(s)	<p>Definition of "compensation factor " in Part 1</p> <p>Definition of "raw meter data" in Part 1</p> <p>Clause 8 of Schedule 10.6 – Electronic interrogation of metering installation</p> <p>Clause 11.8A – Metering equipment provider to provide registry metering records to registry manager</p> <p>Clause 7(1) of Schedule 11.4 – Metering equipment provider to provide registry metering records to registry manager</p> <p>Table 1 of Schedule 11.4</p> <p>Clause 2(3) of Schedule 15.3 – Reconciliation participants to prepare information</p>
Problem definition	<p>Part 1 of the Code defines “volume information” to mean the information:</p> <ul style="list-style-type: none"> a) describing the quantity of electricity generated, conveyed, or consumed that is calculated or estimated from raw meter data and supporting data; and b) in the case of unmetered load, calculated in accordance with the Code. <p>For the purposes of Part 10 of the Code, Part 1 of the Code defines raw meter data to mean information obtained by interrogating a metering installation.¹</p> <p>To produce accurate volume information, compensation factors are applied to raw meter data from a metering installation. Part 1 of the Code defines “compensation factor” to mean one of the following factors used to compensate for errors, losses, or ratios within a metering installation, to produce accurate volume information:</p> <ul style="list-style-type: none"> a) error compensation: b) loss compensation: c) ratio compensation. <p>Any combination of the three types of compensation factors can be applied to raw meter data.</p> <p>Normally, a metering installation component will apply error and loss compensation automatically through its internal programming, so that the raw meter data has already been adjusted by these factors prior to the interrogation. The trader responsible for the site subsequently applies any required measuring transformer ratio factor, as specified by the MEP in the registry, to the raw meter data following the interrogation of the metering installation.</p> <p>However, sometimes loss or error compensation is not programmed into a meter. Therefore a trader must apply more than one type of compensation factor to raw meter data. If this is the case, the trader must multiply the raw</p>

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Part 1 of the Code also defines “raw meter data” for the purposes of Part 15 of the Code.

meter data quantities by the product of the applicable compensation factors to generate volume information for the site.

Currently, the registry contains one field for compensation factors used in relation to a metering installation. This reflects the infrequency with which traders must apply more than one type of compensation factor to raw meter data.

There are two problems with the current arrangements in the Code relating to compensation factors.

Problem 1

Traders and metering equipment providers (MEPs) are inconsistent in their interpretation and application of the definitions of “compensation factor” and “raw meter data”. As a result:

- a) traders and MEPs are not applying compensation factors to raw meter data, which is resulting in volume information for a site that understates the correct volume information
- b) traders and MEPs are both applying compensation factors to raw meter data, which is resulting in volume information for a site that overstates the correct volume information
- c) either the trader or the MEP applies compensation factors, but with no consistent practice used across the electricity industry.

The compensation factor that the MEP enters in the registry against a metering installation must be the compensation factor the trader (or trader's agent—eg, the data administrator) applies to the raw meter data. If a component of the metering installation applies a compensation factor prior to the raw meter data being obtained from the metering installation, then this compensation factor must not form part of the compensation factor recorded in the registry.

Furthermore, it is the responsibility of the trader to apply the compensation factor recorded in the registry when creating volume information. It is not the MEP's responsibility to apply the compensation factor recorded in the registry when delivering the raw meter data to the trader.

Problem 2

Currently, the Code does not clearly state how an MEP should record in the registry a compensation factor that represents multiple types of compensation (eg, both loss and ratio compensation).

Row 19 of schedule 11.4 is potentially confusing. It requires the “compensation factor” (as defined in Part 1) to be used in the registry, but the intention is (as expressed in the description in Row 19) that this could be the product of one or more individual compensation factors. The description also uses the term “complex compensation factor” (where the words “compensation factor” are as defined in Part 1 of the Code). While this is helpful, it is not clear that all participants understand what is meant by complex.

The compensation factor recorded in the registry must include all forms of compensation to be applied by the trader. So, if a component of a metering installation does not apply any required error and loss compensation, the

	<p>compensation factor in the registry must include this form of compensation. The Code should clearly describe this. Part 15 of the Code also refers only to the term “compensation factor” (as defined in Part 1), which could be read as referring to the individual compensation factors, rather than (where applicable) the product of two or more compensation factors that are required to be applied.</p>
<p>Proposal</p>	<p>To address problem 1, the Authority proposes to amend clause 8 of Schedule 10.6 of the Code to clarify that an MEP must not apply the compensation factor recorded in the registry to raw meter data. This is the responsibility of the trader responsible for the ICP at which the metering installation is located.</p> <p>To address problem 2, the Authority proposes to:</p> <ul style="list-style-type: none"> a) amend the definition of “compensation factor” in Part 1 b) amend Table 1 of Schedule 11.4, and c) include a reference to Table 1 of Schedule 11.4 in clause 24 of Schedule 10.7. <p>The amendments to Part 1 and Schedule 11.4 are to clarify that an MEP must enter into the registry a compensation factor that is the mathematical product of all compensation factors that are applied externally to the metering installation.</p>
<p>Proposed Code amendment</p>	<p>Part 1</p> <p>...</p> <p>compensation factor means <u>any</u> of the following factors used to compensate for errors, losses, or ratios within a metering installation <u>that are required to be applied to raw meter data</u>, to produce accurate volume information:</p> <ul style="list-style-type: none"> (a) error compensation: (b) loss compensation: (c) ratio compensation <p><u>To avoid doubt, the raw meter data from a metering installation may require more than one compensation factor, if the relevant types of compensation are required.</u></p> <p>...</p> <p>Schedule 10.6</p> <p>...</p> <p>8 Electronic interrogation of metering installation</p> <p>...</p> <p><u>(10) A metering equipment provider must not, when interrogating a metering installation, apply the compensation factor recorded in the registry for that metering installation to any raw meter data downloaded as part of the interrogation.</u></p>

Schedule 10.7

...

24 Compensation factors

...

- (3) A **metering equipment provider** must, for a **metering installation** in relation to which a **compensation factor** must be applied,—
- (a) if the **metering installation** is for a **point of connection** that is an **NSP**, advise the **reconciliation participant** responsible for the **metering installation** of the **compensation factor** within 10 **business days** of the date on which the **metering installation** is **certified**; or
 - (b) in all other cases, update the **compensation factor** recorded in the **registry** in accordance with Table 1 of Schedule Part 11.4.

Schedule 11.4

...

Table 1: Registry metering records

The following table sets out the **registry metering records**:

No	Registry term	Description	Fully certified metering installation	Interim certified metering installation
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...

The following details for each **metering component** in the **metering installation** for each **ICP**

...

19	registry compensation factor	The <u>mathematical product of all compensation factors</u> , that which in the case of a complex compensation factor , must be obtained from equipment provider <u>the trader must apply to transform the raw meter data into volume information</u>	Required for meter or data storage device . Optional for all other metering components .	Required for meter or data storage device . Optional for all other metering components .
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Assessment of proposed Code amendment against section 32(1) of the

The proposed Code amendment is consistent with the Authority's objective, and section 32(1)(c) of the Act, because it would contribute to the efficient operation of the electricity industry.

Act	<p>It would do this by:</p> <ul style="list-style-type: none"> a) making it easier for participants to understand and meet their Code obligations, which would reduce their costs of transacting in the electricity market b) improving the accuracy of submission information, which would lead to more accurate reconciliation and more accurate invoicing of participants and consumers. <p>It could also increase the reliability of supply for consumers as it would help ensure their metering installations were fit for purpose for their connection type.</p> <p>The proposed amendment is expected to have little, if any, effect on competition, and no effect on reliability of supply.</p>
Assessment against Code amendment principles	The Authority is satisfied the proposed Code amendment is consistent with the Code amendment principles, to the extent they are relevant.
Principle 1: Lawfulness.	The proposed Code amendment is consistent with the Act, as discussed above in relation to the Authority's statutory objective and the requirements set out in section 32(1) of the Act.
Principle 2: Clearly Identified Efficiency Gain or Market or Regulatory Failure	The proposed Code amendment is consistent with principle 2 because it addresses a regulatory failure that is leading to a market inefficiency, and which requires a Code amendment to resolve.
Principle 3: Quantitative Assessment	Please refer to the assessment of costs and benefits in section 3 of the consultation paper.
Regulatory statement	
Objectives of the proposed amendment	<p>The primary objective of the proposed Code amendment is to improve the accuracy of submission information, thereby improving the accuracy of reconciliation and invoicing of participants and consumers.</p> <p>A secondary objective is to make it easier for participants to understand and meet their Code obligations.</p>
Evaluation of the costs and benefits of the proposed amendment	Should be zero cost, as MEPs are still generating the compensation factors and entering them in the registry. Benefits are increased clarity and reduced UFE through reduction in errors with compensation factors.
Evaluation of alternative means of achieving the objectives of the proposed amendment	The Authority has not identified any alternatives to the proposed Code amendment that would meet the objectives of the proposal.