

## Appendix 2: Draft rules specifically referred to in the transitional rules

**PLEASE NOTE: these draft rules are issued for context, not submissions. Any submissions on these rules may be deemed out of scope and not considered by the Commission.**

### *Rule 3.1.2, part J*

#### **3.1.2 Revised submission information**

Each **reconciliation participant** must, by 1600 hours on the 13th **business day** of each **reconciliation period**, ensure that **submission information** has been delivered to the **reconciliation manager** for all **points of connection** at which it has purchased or sold **electricity** during any **consumption period** being reconciled in accordance with rule 10 Part J, and in respect of which it has obtained revised **submission information**.

### *Rule 10.1.1, part J*

#### **10.1.1 Reconcile consumption periods 1, 3, 7, and 14 months**

If the **submission information** received relates to one or more **consumption periods** being 1, 3, 7, or 14 months prior to the current **reconciliation period**, then a further reconciliation must be conducted for that **consumption period** or those **consumption periods**; or

### *Rule 6 schedule J2*

#### **6. Meter Interrogation for half hour metering**

Data from all **half-hour metering** will be obtained by electronic **interrogation** of **half hour** interval meters or **data loggers**. This may be carried out through the use of portable devices or remotely via a recognised communications medium.

##### **6.1 Information to be downloaded**

Data downloaded on **interrogation** of **half-hour metering** will consist of the following as a minimum:

###### **6.1.1 Meter ID**

The unique ID of the meter or data logger;

### 6.1.2 Time

The time from the **data logger** at the commencement of the download unless the time is within specification and the **interrogation** log records the time of **interrogation**;

### 6.1.3 Half hour metering information

The **half-hour metering information** for each **trading period**, which represents the quantity of **electricity** conveyed at the **point of connection**, including the date/time stamp or index marker for each **half hour** period.

This may be limited to the information accumulated since the last **interrogation**;

### 6.1.4 Events log

The events log. This may be limited to the events information accumulated since the last **interrogation**. The events log will contain as a minimum the events listed in rule 4.3.2 of **code of practice D4**;

### 6.1.5 Half Hour meter interrogation log

For all **half-hour metering information**, an interrogation log must be generated by the **interrogation** software to record details of all **interrogations**. The interrogation log will be perused by the **reconciliation participant** responsible for collecting the data and appropriate action taken where problems are apparent. Alternatively, this process may be an automated software function which flags exceptions. This log will form part of the **interrogation audit** trail and will contain the following:

#### 6.1.5.1 Date

Date of interrogation;

#### 6.1.5.2 Time

Time of commencement of **interrogation**;

#### 6.1.5.3 Operator ID

Operator ID (where available);

#### 6.1.5.4 Meter or data logger ID

The unique ID of the meter or data logger;

#### 6.1.5.5 Clock errors

Clock errors outside the range specified in rule 6.2;

#### 6.1.5.6 Interrogation method

Method of **interrogation**; and

### 6.1.5.7 Local reading device ID

ID of the reading device used for **interrogation** (where applicable).

## 6.2 Data logger clock synchronisation for half-hour meters

**Data logger** clock synchronisation relates to **half-hour metering** only.

**Interrogation** and processing system(s) must have their internal clock(s) synchronised electronically against a time source with a traceable standard on a regular basis, at intervals no greater than one week and prior to the commencement of any individual **interrogation** or **interrogation** cycle, or at such greater frequency as will ensure the internal clock is within 5 seconds of true time.

During **interrogation**, the internal clock of the **data logger** must be compared with the **calibrated** clock in the **interrogation** device. Should the time error be no greater than that listed in Table 1, the **interrogation** device may automatically update (synchronise) the clock in the **data logger** in accordance with **code of practice D4**.

Where a time error greater than that listed in Table 1 is detected, correction must be made to the **data logger** clock time and any data affected by the time error. The error will be recorded in the events log and downloaded as part of the **interrogation**.

Table 1: - Maximum permitted time errors

Metering Installation Category Group	Maximum Time Error of Data Logger Clock (seconds)	Maximum Time Error in Commencement of any Trading Period (seconds)	Maximum Time Error in Interrogation & Processing Systems (seconds)	Maximum Time Error for Automatic Adjustment (seconds)
1	±10	±10	±5	±10
2	±10	±10	±5	±10
3	±10	±10	±5	±10
4	±10	±10	±5	±10
5	±5	±5	±5	±5
6	±5	±5	±5	±5

81

## 6.3 Trading period

The **trading period** duration, normally 30 minutes, will be within ±0.1% (± 2 seconds).

#### 6.4 Quantification error

The design of the **interrogation** system will ensure that the requirements of rule 3.4 of **code of practice** D3 of schedule D1 of part D are complied with.

#### 6.5 Half hour estimates

If a **reconciliation participant** is unable to **interrogate** any **half-hour metering installation** prior to the deadline for providing **submission information**, then the **reconciliation participant** must submit to the **reconciliation manager** its best estimate of the quantity of **electricity** that is purchased or sold in each **trading period** during any applicable **consumption period** for that **metering installation**.

**Reconciliation participants** must use reasonable endeavours to ensure that estimated **submission information** is within the percentage specified by the **Board**.

### *Rule 2 schedule J3*

## **2. Creation of submission information**

### **2.1 Reconciliation participants to prepare information**

Where each **reconciliation participant** must prepare **submission information** for each **NSP** for the relevant **consumption periods** pursuant to the **rules submission information** must include:

#### **2.1.1 Half hour**

**Half-hour volume information** for each **ICP** notified under rule 11 of part E;

#### **2.1.2 Non half hour**

Non **half hour volume information** calculated in accordance with either rule 2.2.1 or 0 or 2.2.3 (as applicable) for each **ICP** that has been notified under rule 11 of part E; and

#### **2.1.3 Unmetered load**

**Unmetered load quantities** for each **ICP** that has **unmetered load** associated with it derived from either the quantity recorded in the **registry** against the relevant **ICP** or other relevant information.

### **2.2 Historical estimates and forward estimates**

Each **reconciliation participant**, must, for each **ICP** that has a non **half hour metering installation**, allocate **volume information** derived from **validated meter readings**, **estimated readings** or **permanent estimates**, to **consumption periods** using the

following techniques to create **historical estimates** and **forward estimates**.

Each type of estimate being a **forward estimate** or an **historical estimate**, must be clearly identified as being such.

When **validated meter readings** are not available for the purpose of rules 2.2.1 and 2.2.2, **permanent estimates** may be used in place of **validated meter readings**.

## 2.2.1 Historical estimates with seasonal adjustment

The methodology to be used by **reconciliation participants** for preparing an historic estimate of **volume information** for each **ICP** when the relevant **seasonal adjustment shape** is available, will be as follows:

### 2.2.1.1 Complete consumption periods spanned by meter readings

Where the period between any two consecutive **validated meter readings** encompasses an entire **consumption period**, an **historical estimate** will be prepared in accordance with the following formula:

$$HE_{ICP} = kWh_{ICP} \times A / B$$

Where:

$HE_{ICP}$  is the quantity of **electricity** allocated to a **consumption period** for an **ICP**;

$kWh_P$  is the difference in kWh between last **validated meter reading** prior to the **consumption period** and the first **validated meter reading** after the **consumption period**;

A is the sum of the **seasonal adjustment shape** values for that **consumption period**;

B is the sum of the **seasonal adjustment shape** values for the same time period as is covered by  $kWh_P$  as published by the **reconciliation manager**.

### 2.2.1.2 Part consumption period calculation

Where the period between any two consecutive **validated meter readings** encompasses the first part of a **consumption period** and the period between the second **validated meter reading** and the subsequent **validated meter reading** encompasses the rest of that **consumption period**, an historical estimate will be prepared in accordance with the following formula:

$$HE_{ICP} = kWh_{P1} \times A_1 / B_1 + kWh_{P2} \times A_2 / B_2$$

Where:

$HE_{ICP}$  is the quantity of **electricity** allocated to a **consumption period** for an **ICP**;

$kWh_{P1}$  is the difference in kWh between the last **validated meter reading** prior to the **consumption period** and the **validated meter reading** during the **consumption period**;

$A_1$  is the sum of the **seasonal adjustment shape** values for the relevant days in the first part of the **consumption period**;

$B_1$  is the sum of the **seasonal adjustment shape** values for the same time period as is covered by  $kWh_{P1}$ ;

$kWh_{P2}$  is the difference in kWh between the first **validated meter reading** during the **consumption period** and the first **validated meter reading** after the **consumption period**;

$A_2$  is the sum of the **seasonal adjustment shape** values for the relevant days in the latter part of the **consumption period**;

$B_2$  is the sum of the **seasonal adjustment shape** values for the same time period as is covered by  $kWh_{P2}$ .

### 2.2.2 Historical estimates without seasonal adjustment

When a **seasonal adjustment shape** is not available, either due to timing (for the provision of **submission information** by the 4<sup>th</sup> **business day** of each **reconciliation period**) or for any other reason, the methodology for preparing an historical estimate of **volume information** for each **ICP** will be the same as in rule 2.2.1, however the relevant quantities  $kWh_{Px}$  will be prorated on a

basis to be determined by the **reconciliation participant** or a flat shape basis using the relevant number of days that are:

- a) within the **consumption** period; and
- b) within the period covered by kWh<sub>Px</sub>.

### 2.2.3 Forward estimates

A forward estimate is an estimation of the total quantity of **electricity** that flowed through an **ICP** during all or part of a **consumption period**. A forward estimate may only be used in respect of any period for which a historical estimate cannot be calculated. The methodology used for calculating a forward estimate may be determined at the discretion of the **reconciliation participant** provided that the **reconciliation participant** must ensure that the accuracy of its initial **submission information** against each subsequent revision cycle **submission information**, for each **balancing area** is within the percentage of error specified by the **Board**.

### 2.2.4 Compulsory meter reading after profile change

When a **retailer** changes the **profile** associated with a **meter**, it must when determining the **volume information** for that **meter** and its respective **ICP**, use a **validated meter reading** or **permanent estimate** on the day on which the **profile** change is to take effect. The **retailer** must use the **volume information** from that **validated meter reading** or **permanent estimate** in calculating the relevant **historical estimates** of consumption of each **profile** for that **meter**.

## *Rule 3 schedule J3*

### 3 Provision of submission information to reconciliation manager

**Submission information** will be provided to the **reconciliation manager** aggregated to the following level:

- 3.1 **GXP** or **GIP**;
- 3.2 **network** code;
- 3.3 **reconciliation type**;
- 3.4 **profile**;
- 3.5 **loss category** code;
- 3.6 flow direction;
- 3.7 dedicated **NSP**; and

- 3.8 trading period for half hour metered ICPs and consumption period or day for all other ICPs.

**Rule 5 schedule J3**

**5 Distributed unmetered load database**

**5.1 Retailers maintain databases of unmetered load**

**Retailers** must ensure that a database is maintained for each type of **distributed unmetered load** for which they are responsible. The database must satisfy the requirements of schedule J5 in regard to the methodology for deriving **submission information**.

**5.1.1 Database contents**

The database shall contain at a minimum:

**5.1.1.1** The **ICP** identifier associated with the **unmetered load**;

**5.1.1.2** The location of each item of load;

**5.1.1.3** A description of load type for each item of load including any assumptions made in the assessment of its capacity; and

**5.1.1.4** The capacity of each item of load in kW.

**5.2 Tracking of load changes over time**

The database must track the time of additions and changes in a way that enables the total load in kW to be retrospectively derived for any day.

**5.3 Audit trail**

The database must incorporate an **audit** trail of all additions and changes identifying the before and after values, date and time, and the person making the change or addition.

**5.4 Audit of distributed load databases**

The annual **audit** of a **retailer** shall include an **audit** of the databases of distributed load to verify that the volume information is being calculated accurately. Where the load shape changes from period to period this will include ensuring the records comply with the requirements of the assigned **profile**.

**Rule 2 schedule J4**

**Overview of key reconciliation events**

<b>Timing</b>	<b>Initial Reconciliation Process</b>	<b>Revisions Cycles</b>
Commencement of the first day of the calendar month.	Beginning of <b>reconciliation period</b> .	Beginning of <b>reconciliation period</b> .
By 1600 hours on the 4 <sup>th</sup> <b>business day</b> of the calendar month until the final opportunity to submit <b>submission information</b> for the final revisions cycle.	The <b>registry</b> makes available, and the <b>reconciliation manager</b> procures: <b>ICP days</b> , <b>loss factor</b> and <b>balancing area</b> and <b>half hour ICP days</b> information.  All <b>reconciliation participants</b> must submit to the <b>reconciliation manager</b> <b>submission information</b> , <b>retailer</b> information and <b>NSP</b> information in accordance with rule 3 of Part J.	
<b>Timing</b>	<b>Initial Reconciliation Process</b>	<b>Revisions Cycles</b>
By 1600 hours on the 7 <sup>th</sup> <b>business day</b> of the calendar month.	<b>Reconciliation manager</b> must have completed a reconciliation of the <b>submission information</b> provided by <b>participants</b> and the <b>grid owner</b> , and must make <b>reconciliation information</b> available to the entitled <b>reconciliation participants</b> and the <b>clearing manager</b> for settlement.	
From the 8 <sup>th</sup> <b>business day</b> to immediately before the last <b>business day</b> of the calendar month.	<b>Reconciliation participants</b> must seek to resolve all inaccuracies and disputes concerning the <b>reconciliation information</b> .	
By 1600 hours on the 13 <sup>th</sup> <b>business day</b> of the calendar month.		All <b>reconciliation participants</b> must submit to the <b>reconciliation manager</b> revised <b>submission information</b> <b>retailer</b> information and <b>NSP</b>

<b>Timing</b>	<b>Initial Reconciliation Process</b>	<b>Revisions Cycles</b>
		information in accordance with rules 3 and 10 of Part J.  The <b>registry</b> makes available and the <b>reconciliation manager</b> procures revised: <b>ICP days, loss factor, balancing area</b> and <b>half hour ICP days</b> information.
By 1200 hours on the last <b>business day</b> of the <b>reconciliation period</b> .		<b>Reconciliation manager</b> must distribute revised <b>reconciliation information</b> to the entitled <b>reconciliation participants</b> and the <b>clearing manager</b> .

**Rule 4.2 schedule J4**

**4.2 ICP scaling factor calculation**

The **reconciliation manager** must, using the **retailer** reported **ICP days** and **registry** reported **ICP days**, calculate **ICP day** scaling factors separately in respect of non **half hour** and **half hour** metered **ICPs** according to the following formula;

$$ICP_{SF} = ICPD_{REG} / ICPD_{RTLRL}$$

Where:  $ICP_{SF}$  = the ICP scaling factor;

$ICPD_{REG}$  = the number of **ICP days** for that **retailer** per **balancing area** as reported by the **registry**; and

$ICPD_{RTLRL}$  = the number of **ICP days** for that **retailer** for that **balancing area** as reported by each **retailer**.

If:

- a) the **ICP scaling factor** is calculated to be less than 1; or
- b)  $ICPD_{RTLRL} = 0$

then  $ICP_{SF}$  will be set to 1

#### 4.2.1 ICP days scaling factor for direct consumers

The **ICP days scaling factor** for **direct consumers** shall be set to 1.

#### 4.2.2 Zero ICP days volume

Where the **ICP days** value reported by a **retailer** in respect of a **balancing area** is zero, or when data is not supplied, but the corresponding **ICP days** value from the **registry** is not zero, the **reconciliation manager** shall add to that **retailer's submission information** for that **consumption period** an amount (designated  $SI_{ICPD-ADD}$ ) which is equal to:

- a) 25 kWh per **ICP day**, in respect of non **half hour ICPs**; or
- b) 40 kWh per trading period per **ICP day**, in respect of **half hour ICPs**;

and where the relevant number of **ICP days** is that value reported by the **registry**.

The **reconciliation manager** when processing any such additional information will use default values for **profile**, and **loss category code**, as determined by the **Board** from time to time.

### **Rule 9.1 schedule J4**

#### 9.1 Electricity supplied information to be provided

Each **retailer** must report to the **reconciliation manager**, in accordance with rule 3.2.2 of Part J, the quantity of **electricity supplied**.

Aggregated **electricity supplied** quantities are to be reported by month and for each **NSP** and utilised in reconciliation calculations as non loss adjusted values.

**Electricity supplied** quantities will, for reporting and calculation purposes, be allocated to months using:

- a) the month of the relevant invoice date for quantities supplied to **customers** under normal billing arrangements; or
- b) an estimate of the month of usage for all other arrangements of supply.

and in the event of unusual circumstances, re-allocated on a reasonable basis to reflect the month(s) of actual usage

##### 9.1.1 Transitional requirement

Notwithstanding any other rule to the contrary in these **rules**, the scorecard rating will be set to 1 until such time

as the Board **notifies** participants that the scorecard rating will be calculated in accordance with this rule 9.

#### **Rule 9.2.2 schedule J4**

##### **9.2.2 Scorecard calculation**

The **scorecard rating** for each **retailer** for each **balancing area** ( $SC_{Ri}$ ) will (subject to rule 9.2.3) be calculated according to the following formula (provided that if the **scorecard rating** is calculated through the application of the formula to be less than 1, then  $SC_{Ri}$  will be set to 1):

$$SC_{Ri} = AES_{Ri} / (ACI_{Ri} \times SC_{Thres})$$

Where for each **consumption period** and each **balancing area**:

$AES_{Ri}$  is the sum of the **electricity** supplied quantities for the 12 months up to and including the month of the relevant **consumption period**;

$ACI_{Ri}$  is the sum of the **submission information** quantities (**ICP days** adjusted but non **loss** adjusted) for the 12 months up to and including the month prior to the relevant **consumption period**; and

$SC_{Thres}$  is the scorecard threshold (which allows for a degree of expected misalignment between the annualised **electricity supplied** and **submission information** quantities) and has the value specified by the **Board** from time to time.

and where the subscript "Ri" refers to a **retailer**.

In all cases the latest quantities submitted to the **reconciliation manager** by the **retailer** will be used.

## Rule 10.1 schedule J4

### 10.1 Allocation of unaccounted for electricity

#### Calculation

**Unaccounted for electricity** will be apportioned to each **retailer** or **direct consumer** at each **NSP** and for each **trading period** using the following formulae

$$UFE_{Ri} = UFE_{NSPx} \times AF_{Ri}$$

and:

$$AF_{Ri} = (SC_{Ri} \times MS_{Ri}) / \text{sum}(SC_{R1} \times MS_{R1}, \dots, SC_{Rn} \times MS_{Rn})$$

$$MS_{Ri} = Q_{ICPD-LA Ri} / \text{sum}(Q_{ICPD-LA 1}, \dots, Q_{ICPD-LA n})$$

Where for each **trading period**:

$UFE_{Ri}$  is the quantity of **unaccounted for electricity** allocated to each **retailer** or **direct consumer**;

$UFE_{NSPx}$  is the **unaccounted for electricity** for each **balancing area** as calculated by the **reconciliation manager**;

$Q_{ICPD-LA i}$  is the quantity of **electricity** attributed to each **retailer** or **direct consumer** which has been loss-adjusted and **ICP** days scaled at each **NSP**;

$AF_{Ri}$  is the **unaccounted for electricity** allocation factor, expressed as a fractional number (not less than 0 or greater than 1), for each **retailer** or **direct consumer** at each **NSP**; and

$MS_{Ri}$  is the market share proportion, expressed as a fractional number (not less than 0 or greater than 1), for each **retailer** or **direct consumer** at each **NSP**.

and for each consumption period:

$SC_{Ri}$  is the **scorecard rating** for each **retailer** or **direct consumer** for each **balancing area**.