

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**

The Veritek logo features the word "VERITEK" in a blue, serif, all-caps font. A thin blue horizontal line is positioned below the text, and a thin blue vertical line is positioned to the left of the text, intersecting the horizontal line.

For

NORFOLK APARTMENTS BODY CORPORATE 478483 (NORF)

Prepared by: Steve Woods, Veritek Limited

Date audit commenced: 28 November 2017

Date audit report completed: 12 December 2017

Audit report due date: 16-Dec-17

TABLE OF CONTENTS

Executive summary	4
Audit summary	4
Non-compliances	4
Recommendations	4
Issues 4	
1. Administrative	5
1.1. Exemptions from Obligations to Comply With Code (Section 11)	5
1.2. Structure of Organisation	5
1.3. Persons involved in this audit	5
1.4. Use of contractors (Clause 11.2A)	6
1.5. Supplier list	6
1.6. Hardware and Software	6
1.7. Breaches or Breach Allegations	6
1.8. ICP and NSP Data	6
1.9. Authorisation Received	7
1.10. Scope of Audit	7
1.11. Summary of previous audit	8
Table of Non-Compliance	8
2. Operational Infrastructure	9
2.1. Requirement to provide complete and accurate information (Clause 11.2(1))	9
2.2. Requirement to correct errors (Clause 11.2(2))	9
3. Creation of ICPs	10
3.1. Distributors must create ICPs (Clause 11.4)	10
3.2. Participants may request distributors to create ICPs (Clause 11.5(3))	10
3.3. Provision of ICP Information to the registry (Clause 11.7)	11
3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1)	11
3.5. Timeliness of Provision of Initial Energisation Date (Clause 7(2A) of Schedule 11.1)	11
3.6. Connection of ICPs (Clause 11.17)	12
3.7. Electrical connection of ICPs (Clause 10.28(7))	12
3.8. Electrical connection of ICP that is not an NSP (Clause 10.31)	13
3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2))	13
3.10. Definition of ICP identifier (Clause 1(1) Schedule 11.1)	14
3.11. Loss category (Clause 6 Schedule 11.1)	14
3.12. Management of “new” status (Clause 13 Schedule 11.1)	15
3.13. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)	15
3.14. Embedded generation loss category (Clause 7(6) Schedule 11.1)	16
4. Maintenance of registry information	17
4.1. Changes to registry information (Clause 8 Schedule 11.1)	17
4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)	17
4.3. Customer queries about ICP (Clause 11.31)	18
4.4. ICP location address (Clause 2 Schedule 11.1)	18
4.5. ICP de-energisation (Clause 3 Schedule 11.1)	19
4.6. Distributors to Provide ICP Information to the Registry (Clause 7(1) Schedule 11.1)	19

4.7.	Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)	21
4.8.	GPS coordinates (Clause 7(8) and (9) Schedule 11.1)	21
4.9.	Management of “ready” status (Clause 14 Schedule 11.1)	22
4.10.	Management of “distributor” status (Clause 16 Schedule 11.1)	22
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1)	23
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1).....	23
5.	Creation and maintenance of loss factors	24
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1)	24
5.2.	Updating loss factors (Clause 22 Schedule 11.1)	24
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs)25	
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1).....	25
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)	25
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)	26
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)26	
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)	27
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)	27
6.7.	Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)	28
6.8.	Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3))	28
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2)).....	29
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1)	29
6.11.	Electrically connecting NSP that is not point of connection to grid (Clause 10.30(1))....	30
6.12.	Change of MEP for embedded network gate meter (Clause 10.22(1)(b))	30
6.13.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)	31
6.14.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2).....	31
7.	Maintenance of shared unmetered load	32
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))	32
7.2.	Changes to shared unmetered load (Clause 11.14(5)).....	32
8.	Calculation of loss factors	33
8.1.	Creation of loss factors (Clause 11.2).....	33
Conclusion	34
Participant response	35

EXECUTIVE SUMMARY

This Distributor audit was conducted at the request of **Norfolk Apartments Body Corporate 478483 (NORF)** to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

NORF's compliance is reliant on the compliance of Switch Utilities, as the contractor to NORF. All of the findings in relation to the functions covered by Switch Utilities are covered in this audit report, therefore there is no separate audit report for Switch Utilities.

Compliance is confirmed, and therefore based on the Distributor audit frequency matrix the next recommended audit is due in 36 months, and I agree with this recommendation.

The matter raised is shown in the table below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			Nil				
Future Risk Rating						0	
Next indicative audit frequency						36 months	

Future risk rating	0-1	2-5	6-8	9-20	21-29	30+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation
		Nil	

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

1.1. Exemptions from Obligations to Comply With Code (Section 11)

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

Section 11 of the Electricity Industry Act provides for the Electricity Authority to exempt any participant from compliance with all or any of the clauses.

Audit observation

The Authority website was checked to determine whether NORF has any Code exemptions in place.

Audit commentary

Review of exemptions on the Authority website confirmed that there are no exemptions in place for NORF.

1.2. Structure of Organisation

Not applicable

1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

Personnel assisting in this audit were:

Name	Company
Sean Campbell	Switch Utilities Limited
John Candy	JC Consulting

1.4. Use of contractors (Clause 11.2A)

Code reference

Clause 11.2A

Code related audit information

A participant who uses a contractor

- *remains responsible for the contractor's fulfillment of the participants Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to the action of a contractor*
- *must ensure that the contractor has at least the specified level of skill, expertise, experience, or qualification that the participant would be required to have if it were performing the obligation itself.*

Audit observation

Switch Utilities carries out NORF's registry activities and communications in relation to the establishment of new networks.

1.5. Supplier list

Contractors are recorded in Section 1.4 above.

1.6. Hardware and Software

All activity is made directly via the registry interface and via the Reconciliation Manager interface for updates to the network supply point table

1.7. Breaches or Breach Allegations

NORF has not had any breach allegations relevant to this audit recorded by the Electricity Authority.

1.8. ICP and NSP Data

NORF has responsibility for one embedded network. The tables below show the relevant information:

NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network Type	Start Date	Number of ICPs
NORF	NOR0011	42 TOTARA AVE NEW LYNN AUCKLAND	ALB0331	UNET	NOR0011 NORFE	E	45

Status	Number of ICPs 2017	Number of ICPs 2016
Distributor	0	0
New	0	0
Ready	0	0
Active (2,0)	45	45
Inactive - new connection in progress (1,12)	0	0
Inactive – vacant (1,4)	0	0
Inactive - reconciled elsewhere (1,5)	0	0
Inactive – AMI remote disconnection (1,7)	0	0
Inactive – de-energised due to meter disconnected (1,9)	0	0
Inactive – at pole fuse(1,8)	0	0
Inactive – de-energised at meter box switch (1,10)	0	0
Inactive - at meter box switch (1,11)	0	0
Inactive – ready for decommissioning (1,6)	0	0
Decommissioned (3)	0	0

1.9. Authorisation Received

No letter of authorisation was required as NORF provided all the information required.

1.10. Scope of Audit

This Distributor audit was performed at the request of NORF, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.1, which was produced by the Electricity Authority.

The scope of the audit is shown in the table below:

Functions Requiring Audit Under Clause 11.10(4) of Part 11	Contractors Involved in Performance of Tasks
The creation of ICP identifiers for ICPs.	Switch Utilities
The provision of ICP information to the registry and the maintenance of that information.	
The creation and maintenance of loss factors.	

1.11. Summary of previous audit

NORF provided a copy of their previous audit conducted in November 2016 by Rebecca Elliot of Veritek Limited. This report recorded one non-compliance. The table below records its current status. No recommendations were made.

Table of Non-Compliance

Subject	Section	Clause	Non compliance	Status
Metering Information for NSP that is not a POC to the Grid	6.8	10.25(2)(b)&(c) of part 10	Late notification of gate metering information.	Cleared

2. OPERATIONAL INFRASTRUCTURE

2.1. Requirement to provide complete and accurate information (Clause 11.2(1))

Code reference

Clause 11.2(1)

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

Audit observation

Switch Utilities' data management processes were examined. I also examined a registry list file to confirm compliance.

Audit commentary

Switch Utilities use the registry as their data repository and monitor registry notifications. Any corrections to data are updated as soon as possible directly into the registry. Examination of the list file confirmed compliance.

Audit outcome

Compliant

2.2. Requirement to correct errors (Clause 11.2(2))

Code reference

Clause 11.2(2)

Code related audit information

If the participant becomes aware that in providing information under this Part, the participant has not complied with that obligation, the participant must, as soon as practicable, provide such further information as is necessary to ensure that the participant does comply.

Audit observation

Switch Utilities' data management processes were examined. I also examined a registry list file to confirm compliance.

Audit commentary

Switch Utilities use the registry as their data repository and monitor registry notifications. Any corrections to data are updated as soon as possible directly into the registry. Examination of the list file confirmed compliance.

Audit outcome

Compliant

3. CREATION OF ICPS

3.1. Distributors must create ICPs (Clause 11.4)

Code reference

Clause 11.4

Code related audit information

The distributor must create an ICP identifier in accordance with Clause 1 of Schedule 11.1 for each ICP on the distributor's network. This includes an ICP identifier for the point of connection at which an embedded network connects to the distributor's network.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities creates ICPs on behalf of Distributors as required by this clause, but none have been created for this network as all the ICPs were transferred.

Audit outcome

Not applicable

3.2. Participants may request distributors to create ICPs (Clause 11.5(3))

Code reference

Clause 11.5(3)

Code related audit information

The distributor, within three business days of receiving a request for the creation of an ICP identifier for an ICP, must either create a new ICP identifier or advise the participant of the reasons it is unable to comply with the request.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

There have been no new connections created since the inception of this embedded network, and there are none expected. However, should this be required it is expected that requests will be received via the Retailer. Upon receipt, Switch Utilities have an ICP creation tool that will create the ICP as required and this will then be provided back to the Retailer.

Audit outcome

Not applicable

3.3. Provision of ICP Information to the registry (Clause 11.7)

Code reference

Clause 11.7

Code related audit information

The distributor must provide information about ICPs on its network in accordance with Schedule 11.1.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.4. Timeliness of Provision of ICP Information to the registry (Clause 7(2) of Schedule 11.1)

Code reference

Clause 7(2) of Schedule 11.1

Code related audit information

The distributor must provide information specified in Clauses 7(1)(a) to 7(1)(o) of Schedule 11.1 as soon as practicable and prior to electricity being traded at the ICP.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.5. Timeliness of Provision of Initial Energisation Date (Clause 7(2A) of Schedule 11.1)

Code reference

Clause 7(2A) of Schedule 11.1

Code related audit information

The distributor must provide the information specified in sub-clause (1)(p) to the registry no later than 10 business days after the date on which the ICP is initially energised.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.6. Connection of ICPs (Clause 11.17)

Code reference

Clause 11.17

Code related audit information

A distributor must, when connecting an ICP that is not also an NSP, follow the electrical connection process set out in Clause 10.31.

The distributor must not connect an ICP (except for an ICP across which unmetered load is shared) unless a trader is recorded in the registry as accepting responsibility for the ICP.

In respect of ICPs across which unmetered load is shared, the distributor must not connect an ICP unless a trader is recorded in the registry as accepting responsibility for the shared unmetered load.

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.7. Electrical connection of ICPs (Clause 10.28(7))

Code reference

Clause 10.28(7)

Code related audit information

A network owner must not electrically connect a new point of connection that is to be quantified by metering unless requested to do so by the:

- *MEP (for a temporary energisation); or*
- *reconciliation participant responsible for ensuring there is a metering installation.*

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded, and therefore the Retailer will have given their permission prior to electrical connection. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.8. Electrical connection of ICP that is not an NSP (Clause 10.31)

Code reference

Clause 10.31

Code related audit information

A distributor must not connect an ICP that is not also an NSP unless:

- *the trader trading at the ICP has requested the connection; or*
- *the MEP who has an arrangement with the trader trading at the ICP has requested temporary electrical connection of the ICP.*

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

Switch Utilities manage the energisation process for all ICPs on the embedded networks they manage. The registry is used as the data repository therefore all details will be updated as required by this clause directly into the registry prior to electricity being traded, and therefore the Retailer will have given their permission prior to electrical connection. There have been no new connections occur as yet.

Audit outcome

Not applicable

3.9. Electrical connection of NSP that is not a point of connection to the grid (Clause 10.30(2))

Code reference

Clause 10.30(2)

Code related audit information

A distributor must, within five business days of electrically connecting an NSP that is not also a point of connection to the grid, notify the reconciliation manager of the following in the prescribed form:

- *the NSP electrically connected*
- *the date of the electrical connection*
- *the participant identifier of each MEP*
- *the certification expiry date for each metering installation.*

Audit observation

No new NSPs have been electrically connected during the audit period, therefore compliance was not assessed.

Audit commentary

No new NSPs have been electrically connected during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

3.10. Definition of ICP identifier (Clause 1(1) Schedule 11.1)

Code reference

Clause 1(1) Schedule 11.1

Code related audit information

Each ICP created by the distributor in accordance with Clause 11.4 must have a unique identifier, called the "ICP identifier", determined in accordance with the following format:

xxxxxxxxxxccc where:

- *xxxxxxxxxx is a numerical sequence provided by the distributor*
- *xx is a code that ensures the ICP is unique (assigned by the Authority to the issuing distributor)*
- *ccc is a checksum generated according to the algorithm provided by the market administrator.*

Audit observation

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit commentary

The new connection process was examined. Examination of the registry list file found no ICPs were created during the audit period.

Audit outcome

Not applicable

3.11. Loss category (Clause 6 Schedule 11.1)

Code reference

Clause 6 Schedule 11.1

Code related audit information

Each ICP must have a single loss category that is referenced to identify the associated loss factors.

Audit observation

This process was examined and the list file was examined to confirm all active ICPs have a single loss category code.

Audit commentary

Switch Utilities determines the loss category codes. The list file confirmed that each active ICP only has a single loss category, which clearly identifies the relevant loss factor.

Audit outcome

Compliant

3.12. Management of “new” status (Clause 13 Schedule 11.1)

Code reference

Clause 13 Schedule 11.1

Code related audit information

The ICP status of “New” must be managed by the distributor to indicate:

- *the associated electrical installations are in the construction phase (Clause 13(a) of Schedule 11.1)*
- *the ICP is not ready for activation (Clause 13(b) of Schedule 11.1).*

Audit observation

The ICP creation process and the list file were examined.

Audit commentary

The management of statuses is well understood. If any ICPs are created at “New” these will be updated to “Ready” once the retailer details have been determined. The only other instance where ICPs will be created at “New”, is that of a new NSP going live on the same day as the ICPs. The new NSP cannot be allocated to ICPs until the following day. In these instances, Switch Utilities will create ICPs at “New” and then move them to “Ready” adding the NSP once available. This has not occurred as yet.

There have been no new ICPs created as yet and no ICPs were found at the “New” status.

Audit outcome

Compliant

3.13. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)

Code reference

Clause 15 Schedule 11.1

Code related audit information

If an ICP has had the status of “New” or has had the status of “Ready” for 24 calendar months or more:

- *the distributor must ask the trader who intends to trade at the ICP whether the ICP should continue to have that status (Clause 15(2)(a) of Schedule 11.1)*
- *the distributor must decommission the ICP if the trader advises that the ICP should not continue to have that status (Clause 15(2)(b) of Schedule 11.1).*

Audit observation

This process was examined and the list file was examined.

Audit commentary

Switch Utilities will monitor any ICPs that are at the “New” or “Ready” status via a report. There were no ICPs at the “New” or “Ready” statuses found in the list file.

Audit outcome

Compliant

3.14. Embedded generation loss category (Clause 7(6) Schedule 11.1)

Code reference

Clause 7(6) Schedule 11.1

Code related audit information

If the ICP connects the distributor's network to an embedded generating station that has a capacity of 10 MW or more (clause 7(1)(f) of Schedule 11.1):

- *The loss category code must be unique; and*
- *The distributor must provide the following to the reconciliation manager:*
 - o *the unique loss category code assigned to the ICP*
 - o *the ICP identifier of the ICP*
 - o *the NSP identifier of the NSP to which the ICP is connected*
 - o *the plant name of the embedded generating station.*

Audit observation

The list file was examined. There is no embedded generation on the NORF network that has a generation capacity greater than 10MW.

Audit outcome

Not applicable

4. MAINTENANCE OF REGISTRY INFORMATION

4.1. Changes to registry information (Clause 8 Schedule 11.1)

Code reference

Clause 8 Schedule 11.1

Code related audit information

If information held by the registry that relates to an ICP for which the distributor is responsible changes, the distributor must provide notice to the registry of that change.

Notification must be given by the distributor within three business days after the change takes effect, unless the change is to the NSP identifier of the NSP to which the ICP is usually connected (other than a change that is the result of the commissioning or decommissioning of an NSP).

In those cases, notification must be given no later than eight business days after the change takes effect.

If the change to the NSP identifier is for more than 14 days, the time within which notification must be effected in accordance with Clause 8(3) of Schedule 11.1 begins on the 15th day after the change.

Audit observation

I examined the event detail report for November 2016 to October 2017 to identify late changes to registry information during the audit period.

Audit commentary

Switch Utilities have a good understanding of the requirement to update the registry within three business days of an event. This is done directly into the registry using the registry interface. There is reporting in place to monitor this activity. This includes checks for any changes made by Retailers or MEPS. The event detail report was analysed and it showed there were no changes to any fields during the audit period.

Audit outcome

Not applicable

4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)

Code reference

Clauses 7(1),(4) and (5) Schedule 11.1

Code related audit information

The distributor must notify the registry of the NSP identifier of the NSP to which the ICP is usually connected under Clause 7(1)(b) of Schedule 11.1.

If the distributor cannot identify the NSP that an ICP is connected to, the distributor must nominate the NSP that the distributor thinks is most likely to be connected to the ICP, taking into account the flow of electricity within its network, and the ICP is deemed to be connected to the nominated NSP.

Audit observation

I checked the event detail report for NSP changes and the list file for NSP accuracy compared to address data.

Audit commentary

Due to the nature of embedded networks there is no uncertainty regarding the ICP and NSP relationships. A check of the list file confirmed compliance.

Audit outcome

Compliant

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

The distributor must advise a customer (or any person authorised by the customer) or embedded generator of the customer or embedded generator's ICP identifier within three business days after receiving a request for that information.

Audit observation

The management of customer queries was examined.

Audit commentary

Switch Utilities may receive direct requests for ICP identifiers for NORF on behalf of customers. There is a general queries service in place to manage this.

Audit outcome

Compliant

4.4. ICP location address (Clause 2 Schedule 11.1)

Code reference

Clause 2 Schedule 11.1

Code related audit information

Each ICP identifier must have a location address that allows the ICP to be readily located.

Audit observation

The list file was analysed to confirm compliance.

Audit commentary

A check of NORF's list file found that all ICPs have unique addresses with sufficient information to allow the ICPs to be readily located.

Audit outcome

Compliant

4.5. ICP de-energisation (Clause 3 Schedule 11.1)

Code reference

Clause 3 Schedule 11.1

Code related audit information

Each ICP created after 7 October 2002 must be able to be de-energised without de-energisation of another ICP, except for ICPs that are the point of connection between a network and an embedded network, or ICPs that represent the consumption calculated by difference between the total consumption for the embedded network and all other ICPs on the embedded network.

Audit observation

The management of this process was examined.

Audit commentary

NORF confirm that all ICPs comply with this clause. They have a good understanding of this requirement, and as these networks were created post this requirement, this scenario is unlikely to arise.

Audit outcome

Compliant

4.6. Distributors to Provide ICP Information to the Registry (Clause 7(1) Schedule 11.1)

Code reference

Clause 7(1) Schedule 11.1

Code related audit information

For each ICP on the distributor's network, the distributor must provide the following information to the registry:

- *the location address of the ICP identifier (Clause 7(1)(a) of Schedule 11.1)*
- *the NSP identifier of the NSP to which the ICP is usually connected (Clause 7(1)(b) of Schedule 11.1)*
- *the installation type code assigned to the ICP (Clause 7(1)(c) of Schedule 11.1)*
- *the reconciliation type code assigned to the ICP (Clause 7(1)(d) of Schedule 11.1)*
- *the loss category code and loss factors for each loss category code assigned to the ICP (Clause 7(1)(e) of Schedule 11.1)*
- *if the ICP connects the distributor's network to an embedded generating station that has a capacity of 10MW or more (Clause 7(1)(f) of Schedule 11.1):*
 - a) *the unique loss category code assigned to the ICP*
 - b) *the ICP identifier of the ICP*
 - c) *the NSP identifier of the NSP to which the ICP is connected*
 - d) *the plant name of the embedded generating station*
- *the price category code assigned to the ICP, which may be a placeholder price category code only if the distributor is unable to assign the actual price category code because the capacity or volume information required to assign the actual price category code cannot be determined before electricity is traded at the ICP (Clause 7(1)(g) of Schedule 11.1)*

- *if the price category code requires a value for the capacity of the ICP, the chargeable capacity of the ICP as follows (Clause 7(1)(h) of Schedule 11.1):*
 - a) *a placeholder chargeable capacity if the distributor is unable to determine the actual chargeable capacity*
 - b) *a blank chargeable capacity if the capacity value can be determined from metering information*
 - c) *the actual chargeable capacity of the ICP in any other case*
- *the distributor installation details for the ICP determined by the price category code assigned to the ICP (if any), which may be placeholder distributor installation details only if the distributor is unable to assign the actual distributor installation details because the capacity or volume information required to assign the actual distributor installation details cannot be determined before electricity is traded at the ICP (Clause 7(1)(i) of Schedule 11.1)*
- *the participant identifier of the first trader who has entered into an arrangement to sell or purchase electricity at the ICP (only if the information is provided by the first trader) (Clause 7(1)(j) of Schedule 11.1)*
- *the status of the ICP (Clause 7(1)(k) of Schedule 11.1)*
- *designation of the ICP as "Dedicated" if the ICP is located in a balancing area that has more than 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
 - a) *the nameplate capacity of the generator; and*
 - b) *the fuel type*
 - c) *the initial energisation date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

Audit observation

The management of this process was examined.

The list file was examined to check for the population of all required information and its alignment with the trader where appropriate e.g. distributed generation, unmetered load if known and shared unmetered load.

Audit commentary

Switch Utilities uses the registry interface to update the registry directly. Examination of the list file confirmed that ICP information had been populated correctly. There is no unmetered load or embedded generation present.

Audit outcome

Compliant

4.7. Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1)

Code reference

Clause 7(3) Schedule 11.1

Code related audit information

The distributor must provide the following information to the registry no later than 10 business days after the trading of electricity at the ICP commences:

- *the actual price category code assigned to the ICP (Clause 7(3)(a) of Schedule 11.1)*
- *the actual chargeable capacity of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(b) of Schedule 11.1)*
- *the actual distributor installation details of the ICP determined by the price category code assigned to the ICP (if any) (Clause 7(3)(c) of Schedule 11.1).*

Audit observation

The management of this process was examined and the event detail report for the period November 2016 to October 2017 was examined to determine compliance with this clause.

Audit commentary

Switch Utilities have a good understanding of this requirement. No new connections have occurred on this network as yet.

Audit outcome

Compliant

4.8. GPS coordinates (Clause 7(8) and (9) Schedule 11.1)

Code reference

Clause 7(8) and (9) Schedule 11.1

Code related audit information

If a distributor populates the GPS coordinates (optional), it must meet the NZTM2000 standard in a format specified by the Authority.

Audit observation

NORF do not populate GPS co-ordinates on the registry, therefore compliance was not assessed.

Audit outcome

Not applicable

4.9. Management of “ready” status (Clause 14 Schedule 11.1)

Code reference

Clause 14 Schedule 11.1

Code related audit information

The ICP status of “Ready” must be managed by the distributor and indicates that:

- *the associated electrical installations are ready for connecting to the electricity supply (Clause 14(1)(a) of Schedule 11.1); or*
- *the ICP is ready for activation by a trader (Clause 14(1)(b) of Schedule 11.1).*

Before an ICP is given the “Ready” status in accordance with Clause 14(1) of Schedule 11.1, the distributor must:

- *identify the trader that has taken responsibility for the ICP (Clause 14(2)(a) of Schedule 11.1)*
- *ensure the ICP has a single price category (Clause 14(2)(b) of Schedule 11.1).*

Audit observation

The management of this process is detailed in **Section 3**. The list file and event detail report for November 2016 to September were examined in relation to the use of the ready status.

Audit commentary

ICP requests are expected to be made to Switch Utilities by retailers. As discussed in **Section 3**, no ICP requests have been received as yet but these are expected to be created at “Ready” with a nominated retailer and single price code category code as required by this clause. The list file had no ICPs at “ready”.

Audit outcome

Not applicable

4.10. Management of “distributor” status (Clause 16 Schedule 11.1)

Code reference

Clause 16 Schedule 11.1

Code related audit information

The ICP status of “distributor” must be managed by the distributor and indicates that the ICP record represents a shared unmetered load installation or the point of connection between an embedded network and its parent network.

Audit observation

It is unlikely that NORF will deal with any ICPs with a “Distributor” status because they do not deal with shared unmetered load, and there are no embedded networks connected to existing embedded networks.

Audit commentary

Not applicable

Audit outcome

Not applicable

4.11. Management of “decommissioned” status (Clause 20 Schedule 11.1)

Code reference

Clause 20 Schedule 11.1

Code related audit information

The ICP status of “decommissioned” must be managed by the distributor and indicates that the ICP is permanently removed from future switching and reconciliation processes (Clause 20(1) of Schedule 11.1).

Decommissioning only occurs when:

- *electrical installations associated with the ICP are physically removed (Clause 20(2)(a) of Schedule 11.1); or*
- *there is a change in the allocation of electrical loads between ICPs with the effect of making the ICP obsolete (Clause 20(2)(b) of Schedule 11.1); or*
- *in the case of a distributor-only ICP for an embedded network, the embedded network no longer exists (Clause 20(2)(c) of Schedule 11.1).*

Audit observation

The management of this process was examined and the list file and event detail report for November 2016 to October 2017 were examined in relation to the use of the decommissioned status.

Audit commentary

Switch Utilities manage this via their monitoring report that checks for any changes made by Retailers. Upon receipt of all requests for decommissioning a physical site visit will be carried to confirm the physical disconnection has taken place. No decommissions have taken place as yet.

Audit outcome

Not applicable

4.12. Maintenance of price category codes (Clause 23 Schedule 11.1)

Code reference

Clause 23 Schedule 11.1

Code related audit information

The distributor must keep up to date the table in the registry of the price category codes that may be assigned to ICPs on each distributor's network by entering in the table any new price category codes.

Each entry must specify the date on which each price category code takes effect, which must not be earlier than two months after the date the code is entered in the table.

A price category code takes effect on the specified date.

Audit observation

The price category code table on the registry was examined.

Audit commentary

NORF has not created any new price category codes during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

5. CREATION AND MAINTENANCE OF LOSS FACTORS

5.1. Updating table of loss category codes (Clause 21 Schedule 11.1)

Code reference

Clause 21 Schedule 11.1

Code related audit information

The distributor must keep the registry up to date with the loss category codes that may be assigned to ICPs on the distributor's network.

The distributor must specify the date on which each loss category code takes effect.

A loss category code takes effect on the specified date.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

NORF has not created any new loss category codes during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

5.2. Updating loss factors (Clause 22 Schedule 11.1)

Code reference

Clause 22 Schedule 11.1

Code related audit information

Each loss category code must have a maximum of two loss factors per calendar month. Each loss factor must cover a range of trading periods within that month so that all trading periods have a single applicable loss factor.

If the distributor wishes to replace an existing loss factor on the table on the registry, the distributor must enter the replaced loss factor on the table in the registry.

Audit observation

The loss category code table on the registry was examined.

Audit commentary

NORF has not updated or replaced any loss factor codes during the audit period. There was only one loss factor per category code per month.

Audit outcome

Compliant

6. CREATION AND MAINTENANCE OF NSPS (INCLUDING DECOMMISSIONING OF NSPS AND TRANSFER OF ICPS)

6.1. Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1)

Code reference

Clause 11.8 and Clause 25 Schedule 11.1

Code related audit information

If the distributor is creating or decommissioning an NSP that is an interconnection point between two local networks, the distributor must notify the reconciliation manager of the creation or decommissioning.

If the embedded network owner is creating or decommissioning an NSP that is an interconnection point between two embedded networks, the embedded network owner must notify the reconciliation manager of the creation or decommissioning.

If the distributor is creating or decommissioning an NSP that is a point of connection between an embedded network and another network, the distributor must notify the reconciliation manager of the creation or decommissioning.

If the distributor wishes to change the record in the registry of an ICP that is not recorded as being usually connected to an NSP in the distributor's network, so that the ICP is recorded as being usually connected to an NSP in the distributor's network (a "transfer"), the distributor must:

- *notify the reconciliation manager*
- *notify the market administrator*
- *notify each affected reconciliation participant*
- *comply with Schedule 11.2.*

Audit observation

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No NSPs were created or decommissioned during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.2. Provision of NSP information (Clause 26(1) and (2) Schedule 11.1)

Code reference

Clause 26(1) and (2) Schedule 11.1

Code related audit information

If the distributor wishes to create an NSP or transfer an ICP as described above, the distributor must request that the reconciliation manager create a unique NSP identifier for the relevant NSP.

The request must be made at least 10 business days before the NSP is electrically connected, in respect of an NSP that is an interconnection point between two local networks. In all other cases, the request must be made at least 1 calendar month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table on the registry was examined. No NSPs were created or changed during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No NSPs were created or changed during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.3. Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1)

Code reference

Clause 24(1) and Clause 26(3) Schedule 11.1

Code related audit information

If a participant has notified the creation of an NSP on the distributor's network, the distributor must notify the reconciliation manager of the following:

- *if the NSP is to be located in a new balancing area, all relevant details necessary for the new balancing area to be created and notification that the NSP to be created is to be assigned to the new balancing area*
- *in all other cases, notification of the balancing area in which the NSP is located.*

Audit observation

The NSP table on the registry was examined. No balancing areas were changed during the audit period therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No balancing areas were changed during the audit period therefore compliance was not assessed.

Audit outcome

Not applicable

6.4. Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1)

Code reference

Clause 26(4) Schedule 11.1

Code related audit information

If a participant notifies the creation of an NSP, or the transfer of an ICP to an NSP that is a point of connection between a network and an embedded network owned by the distributor, the distributor must notify the reconciliation manager at least one calendar month before the creation or transfer of:

- *the network on which the NSP will be located after the creation or transfer (Clause 26(4)(a))*
- *the ICP identifier for the ICP that connects the network and the embedded network (Clause 26(4)(b))*
- *the date on which the creation or transfer will take effect (Clause 26(4)(c)).*

Audit observation

The NSP table on the registry was examined. No NSPs were changed during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No NSPs were changed during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.5. Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1)

Code reference

Clause 24(2) and (3) Schedule 11.1

Code related audit information

The distributor must notify the reconciliation manager of any change to balancing areas associated with an NSP supplying the distributor's network. The notification must specify the date and trading period from which the change takes effect, and be given no later than three business days after the change takes effect.

Audit observation

The NSP table on the registry was examined. No balancing areas were changed during the audit period therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No balancing areas were changed during the audit period therefore compliance was not assessed.

Audit outcome

Not applicable

6.6. Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1)

Code reference

Clause 27 Schedule 11.1

Code related audit information

If a transfer of an ICP results in an ICP becoming an NSP at which an embedded network connects to a network, or in an ICP becoming an NSP that is an interconnection point, in respect of the distributor's network, the distributor must notify any trader trading at the ICP of the transfer at least one calendar month before the transfer.

Audit observation

The NSP table on the registry was examined. No ICPs became NSPs during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No ICPs became NSPs during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.7. Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2)

Code reference

Clause 1 to 4 Schedule 11.2

Code related audit information

If the distributor wishes to transfer an ICP, the distributor must notify the market administrator in the prescribed form, no later than three business days before the transfer takes effect.

Audit observation

NORF has not acquired any new networks; compliance was not assessed.

Audit outcome

Not applicable

6.8. Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3))

Code reference

Clause 10.25(1) and 10.25(3)

Code related audit information

A network owner must, for each NSP that is not a point of connection to the grid for which it is responsible, ensure that:

- *there is one or more metering installations (Clause 10.25(1)(a)); and*
- *the electricity is conveyed and quantified in accordance with the Code (Clause 10.25(1)(b)).*

For each NSP covered in 10.25(1) the network owner must, no later than 20 business days after a metering installation at the NSP is recertified notify the reconciliation manager of:

- *the reconciliation participant for the NSP*
- *the participant identifier of the metering equipment provider for the metering installation*
- *the certification expiry date of the metering installation.*

Audit observation

The NSP supply point table was examined to confirm compliance.

Audit commentary

The NSP supply point table as at November 2017 was reviewed. All NSP metering installations have current certification. No installations were recertified during the audit period.

Audit outcome

Compliant

6.9. Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2))

Code reference

Clause 10.25(2)

Code related audit information

If the network owner proposes the creation of a new NSP which is not a point of connection to the grid it must:

- *assume responsibility for being the metering equipment provider (Clause 10.25(2)(a)(i)); or*
- *contract with a metering equipment provider to be the MEP (Clause 10.25(2)(a)(ii)); and*
- *no later than 20 business days after identifying the MEP advise the reconciliation manager in the prescribed form of:*
 - a) the reconciliation participant for the NSP (Clause 10.25(2)(b)(i)); and*
 - b) the MEP for the NSP (Clause 10.25(2)(b)(ii)); and*
 - c) no later than 20 business days after the data of certification of each metering installation, advise the reconciliation participant for the NSP of the certification expiry date (Clause 10.25(2)(c)).*

Audit observation

The NSP table on the registry was examined. No NSPs were created during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No NSPs were created during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.10. Obligations concerning change in network owner (Clause 29 Schedule 11.1)

Code reference

Clause 29 Schedule 11.1

Code related audit information

If a network owner acquires all or part of a network, the network owner must notify:

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the market administrator (Clause 29(1)(c) of Schedule 11.1)*
- *every reconciliation participant who trades at an ICP connected to the acquired network or part of the network acquired (Clause 29(1)(d) of Schedule 11.1).*

At least one calendar month notification is required before the acquisition (Clause 29(2) of Schedule 11.1).

The notification must specify the ICPs to be amended to reflect the acquisition and the effective date of the acquisition (Clause 29(3) of Schedule 11.1).

Audit observation

NORF has not acquired any networks, therefore compliance was not assessed.

Audit commentary

NORF has not acquired any networks, therefore compliance was not assessed.

Audit outcome

Not applicable

6.11. Electrically connecting NSP that is not point of connection to grid (Clause 10.30(1))

Code reference

Clause 10.30(1)

Code related audit information

A distributor must not electrically connect an NSP that is not a point of connection to the grid unless:

- *a reconciliation participant has requested the electrical connection (Clause 10.30(1)(a)); or*
- *a metering equipment provider (authorised by the trader) has requested the electrical connection for a temporary energisation of the ICP (Clause 10.30(1)(b)).*

Audit observation

The NSP table on the registry was examined. No NSPs were created during the audit period, therefore compliance was not assessed.

Audit commentary

The NSP table on the registry was examined. No NSPs were created during the audit period, therefore compliance was not assessed.

Audit outcome

Not applicable

6.12. Change of MEP for embedded network gate meter (Clause 10.22(1)(b))

Code reference

Clause 10.22(1)(b)

Code related audit information

If the MEP for an ICP which is also an NSP changes the participant responsible for the provision of the metering installation under Clause 10.25, the participant must notify the reconciliation manager and the gaining MEP.

Audit observation

Switch Utilities process was examined and the NSP table was checked.

Audit commentary

Switch Utilities have a good understanding of this requirement. There have been no changes of MEP during the audit period.

Audit outcome

Not applicable

6.13. Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2)

Code reference

Clauses 5 and 8 Schedule 11.2

Code related audit information

The distributor must give the market administrator confirmation that it has received written consent to the proposed transfer from:

- *the distributor whose network is associated with the NSP to which the ICP is recorded as being connected immediately before the notification (unless the notification relates to the creation of an embedded network) (Clause 5(a) of Schedule 11.2)*
- *every trader trading at an ICP being supplied from the NSP to which the notification relates (Clause 5(b) of Schedule 11.2).*

The notification must include any information requested by the Authority (Clause 8 of Schedule 11.2).

Audit observation

NORF has not acquired any networks, therefore compliance was not assessed.

Audit commentary

NORF has not acquired any networks, therefore compliance was not assessed.

Audit outcome

Not applicable

6.14. Transfer of ICPs for embedded network (Clause 6 Schedule 11.2)

Code reference

Clause 6 Schedule 11.2

Code related audit information

If the notification relates to an embedded network, it must relate to every ICP on the embedded network.

Audit observation

NORF has not acquired any networks, therefore compliance was not assessed.

Audit commentary

NORF has not acquired any networks, therefore compliance was not assessed.

Audit outcome

Not applicable

7. MAINTENANCE OF SHARED UNMETERED LOAD

7.1. Notification of shared unmetered load ICP list (Clause 11.14(2) and (4))

Code reference

Clause 11.14(2) and (4)

Code related audit information

The distributor must notify the registry and each trader responsible for the ICPs across which the unmetered load is shared of the ICP identifiers of those ICPs.

A distributor who receives notification from a trader relating to a change under Clause 11.14(3) must notify the registry and each trader responsible for any of the ICPs across which the unmetered load is shared of the addition or omission of the ICP.

Audit observation

Examination of the registry list confirmed there is no shared unmetered load.

Audit commentary

Examination of the registry list confirmed there is no shared unmetered load.

Audit outcome

Not applicable

7.2. Changes to shared unmetered load (Clause 11.14(5))

Code reference

Clause 11.14(5)

Code related audit information

If the distributor becomes aware of a change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must notify all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.

Audit observation

Examination of the registry list confirmed there is no shared unmetered load.

Audit commentary

Examination of the registry list confirmed there is no shared unmetered load.

Audit outcome

Not applicable

8. CALCULATION OF LOSS FACTORS

8.1. Creation of loss factors (Clause 11.2)

Code reference

Clause 11.2

Code related audit information

A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 11 is:

- a) complete and accurate*
- b) not misleading or deceptive*
- c) not likely to mislead or deceive.*

Audit observation

The “Guidelines on the calculation and the use of loss factors for reconciliation purposes v2.1” is still under review by the Loss Factor Review Panel. The calculation of loss factors was reviewed.

Audit commentary

Switch Utilities derives loss factors for loss category codes from the published parent network loss factors for similar installations. It is expected that ICPs on embedded networks will have the same loss factor as a similar type of connection on the parent network. The loss factors were checked and confirmed correct.

Audit outcome

Compliant

CONCLUSION

NORF's compliance is reliant on the compliance of Switch Utilities, as the contractor to NORF. All of the findings in relation to the functions covered by Switch Utilities are covered in this audit report, therefore there is no separate audit report for Switch Utilities.

Compliance is confirmed, and therefore based on the Distributor audit frequency matrix the next recommended audit is due in 36 months, and I agree with this recommendation.

PARTICIPANT RESPONSE