

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT**



For

BULLER ELECTRICITY LIMITED (BUEL)

Prepared by: Rebecca Elliot, Veritek Limited

Date audit commenced: 25 March 2019

Date audit report completed: 7 May 2019

Audit report due date: 02-Jun-19

TABLE OF CONTENTS

Executive summary	4
Audit summary	5
Non-compliances	5
Recommendations	6
Issues 7	
1. Administrative	8
1.1. Exemptions from Obligations to Comply with Code (Section 11)	8
1.2. Structure of Organisation	9
1.3. Persons involved in this audit	10
1.4. Use of contractors (Clause 11.2A)	10
1.5. Supplier list	10
1.6. Hardware and Software	10
1.7. Breaches or Breach Allegations	10
1.8. ICP and NSP Data	11
1.9. Authorisation Received	11
1.10. Scope of Audit	12
1.11. Summary of previous audit	13
2. Operational Infrastructure	14
2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))	14
2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))	17
3. Creation of ICPs	19
3.1. Distributors must create ICPs (Clause 11.4)	19
3.2. Participants may request distributors to create ICPs (Clause 11.5(3))	19
3.3. Provision of ICP Information to the registry manager (Clause 11.7)	20
3.4. Timeliness of Provision of ICP Information to the registry manager (Clause 7(2) of Schedule 11.1)	22
3.5. Timeliness of Provision of Initial Electrical Connection Date (Clause 7(2A) of Schedule 11.1)	24
3.6. Connection of ICP that is not an NSP (Clause 11.17)	26
3.7. Connection of ICP that is not an NSP (Clause 10.31)	28
3.8. Electrical connection of ICP that is not an NSP (Clause 10.31A)	30
3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)	30
3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))	31
3.11. Definition of ICP identifier (Clause 1(1) Schedule 11.1)	31
3.12. Loss category (Clause 6 Schedule 11.1)	32
3.13. Management of “new” status (Clause 13 Schedule 11.1)	32
3.14. Monitoring of “new” & “ready” statuses (Clause 15 Schedule 11.1)	33
3.15. Embedded generation loss category (Clause 7(6) Schedule 11.1)	33
3.16. Electrical connection of a point of connection (Clause 10.33A)	34
4. Maintenance of registry information	35
4.1. Changes to registry information (Clause 8 Schedule 11.1)	35
4.2. Notice of NSP for each ICP (Clauses 7(1),(4) and (5) Schedule 11.1)	38

4.3.	Customer queries about ICP (Clause 11.31).....	41
4.4.	ICP location address (Clause 2 Schedule 11.1).....	41
4.5.	Electrically disconnecting an ICP (Clause 3 Schedule 11.1).....	42
4.6.	Distributors to Provide ICP Information to the Registry manager (Clause 7(1) Schedule 11.1)	43
4.7.	Provision of information to registry after the trading of electricity at the ICP commences (Clause 7(3) Schedule 11.1).....	48
4.8.	GPS coordinates (Clause 7(8) and (9) Schedule 11.1).....	48
4.9.	Management of “ready” status (Clause 14 Schedule 11.1).....	49
4.10.	Management of “distributor” status (Clause 16 Schedule 11.1).....	49
4.11.	Management of “decommissioned” status (Clause 20 Schedule 11.1).....	50
4.12.	Maintenance of price category codes (Clause 23 Schedule 11.1).....	52
5.	Creation and maintenance of loss factors	53
5.1.	Updating table of loss category codes (Clause 21 Schedule 11.1).....	53
5.2.	Updating loss factors (Clause 22 Schedule 11.1).....	53
6.	Creation and maintenance of NSPs (including decommissioning of NSPs and transfer of ICPs).....	54
6.1.	Creation and decommissioning of NSPs (Clause 11.8 and Clause 25 Schedule 11.1).....	54
6.2.	Provision of NSP information (Clause 26(1) and (2) Schedule 11.1).....	54
6.3.	Notice of balancing areas (Clause 24(1) and Clause 26(3) Schedule 11.1).....	55
6.4.	Notice of supporting embedded network NSP information (Clause 26(4) Schedule 11.1).....	55
6.5.	Maintenance of balancing area information (Clause 24(2) and (3) Schedule 11.1).....	56
6.6.	Notice when an ICP becomes an NSP (Clause 27 Schedule 11.1).....	56
6.7.	Notification of transfer of ICPs (Clause 1 to 4 Schedule 11.2).....	57
6.8.	Responsibility for metering information for NSP that is not a POC to the grid (Clause 10.25(1) and 10.25(3)).....	57
6.9.	Responsibility for metering information when creating an NSP that is not a POC to the grid (Clause 10.25(2)).....	58
6.10.	Obligations concerning change in network owner (Clause 29 Schedule 11.1).....	58
6.11.	Change of MEP for embedded network gate meter (Clause 10.22(1)(b)).....	59
6.12.	Confirmation of consent for transfer of ICPs (Clauses 5 and 8 Schedule 11.2).....	59
6.13.	Transfer of ICPs for embedded network (Clause 6 Schedule 11.2).....	60
7.	Maintenance of shared unmetered load	61
7.1.	Notification of shared unmetered load ICP list (Clause 11.14(2) and (4)).....	61
7.2.	Changes to shared unmetered load (Clause 11.14(5)).....	61
8.	Calculation of loss factors	62
8.1.	Creation of loss factors (Clause 11.2).....	62
	Conclusion	64
	Participant response	65

EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Buller Electricity Networks (BUEL)**, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11. The audit was carried out at Buller's premises in Westport, on April 30th and 31st, 2018.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

The audit found ten non-compliances and makes three recommendations.

This audit identified that overall code requirements are generally managed well. BUEL have already identified areas of improvement from this audit and are working to review and improve the processes to ensure that the information provided to the registry is complete and accurate and provided in a timely manner.

The use of the NED NEWCONN database has improved the visibility of new connections and the installation of distributed generation on BUEL's network. All updates for new connections and distributed generation are updated to the registry from the database. All other updates continue to be updated using the registry interface. If any further automation of registry updates is determined BUEL is aware that a material change audit is required to ensure that BUEL's ability to comply with their code requirements would not be affected by such a change.

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with BUEL's comprehensive responses to the non-compliances raised and recommend that the next audit be in 12 months' time.

The matters raised are shown in the tables below.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Registry information not complete and accurate in all instances.	Moderate	Low	2	Identified
Requirement to correct errors	2.2	11.2(2)	Errors not corrected as soon as practicable.	Moderate	Low	2	Identified
Provision of ICP Information to the registry manager	3.3	11.7	Nominated trader not provided for 8 ICPs prior to electrical connection.	Weak	Low	3	Identified
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	Registry not updated prior to commencement of trading for eight ICPs.	Weak	Low	3	Identified
Timeliness of Provision of Initial Electrical Connection Date	3.5	7(2A) of Schedule 11.1	Late population of the initial electrical connection date for six ICPs (15%).	Moderate	Low	2	Identified
Connection of ICP that is not an NSP	3.6	11.17	Eight ICPs were connected before proposed trader information was provided to the registry.	Weak	Low	3	Identified
Connection of ICP that is not an NSP	3.7	10.31	Eight ICPs electrically connected before proposed trader permission was provided.	Weak	Low	3	Identified
Changes to registry information	4.1	8 Schedule 11.1	Three address, one network and 16 decommission	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			status updates were updated more than three business days after the event date.				
Provide ICP Information to the Registry manager	4.6	7(1)(m) & (p) Schedule 11.1	One ICP missing distributed generation details. Incorrect and missing initial electrical connection dates. Three price category code updates not recorded with the correct effective dates.	Moderate	Low	2	Identified
Management of “decommissioned” status	4.11	20 Schedule 11.1	Decommissioning of ICPs not managed as required by this clause.	Moderate	Low	2	Identified
Future Risk Rating						24	

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	Action
Requirement to provide complete and accurate information	2.1	Add additional validations identified above to improve data accuracy.	Identified
Provision of ICP information to the registry	3.3	Get blanket trader acceptance agreements in place so ICPs can be created at “ready” wherever possible.	Identified
Notice of NSP for each ICP	4.2	Confirm that the NSP allocated for the ICPs detailed is correct.	Investigating

ISSUES

Subject	Section	Issue	Description
		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 there are any code exemptions in place.

Audit commentary

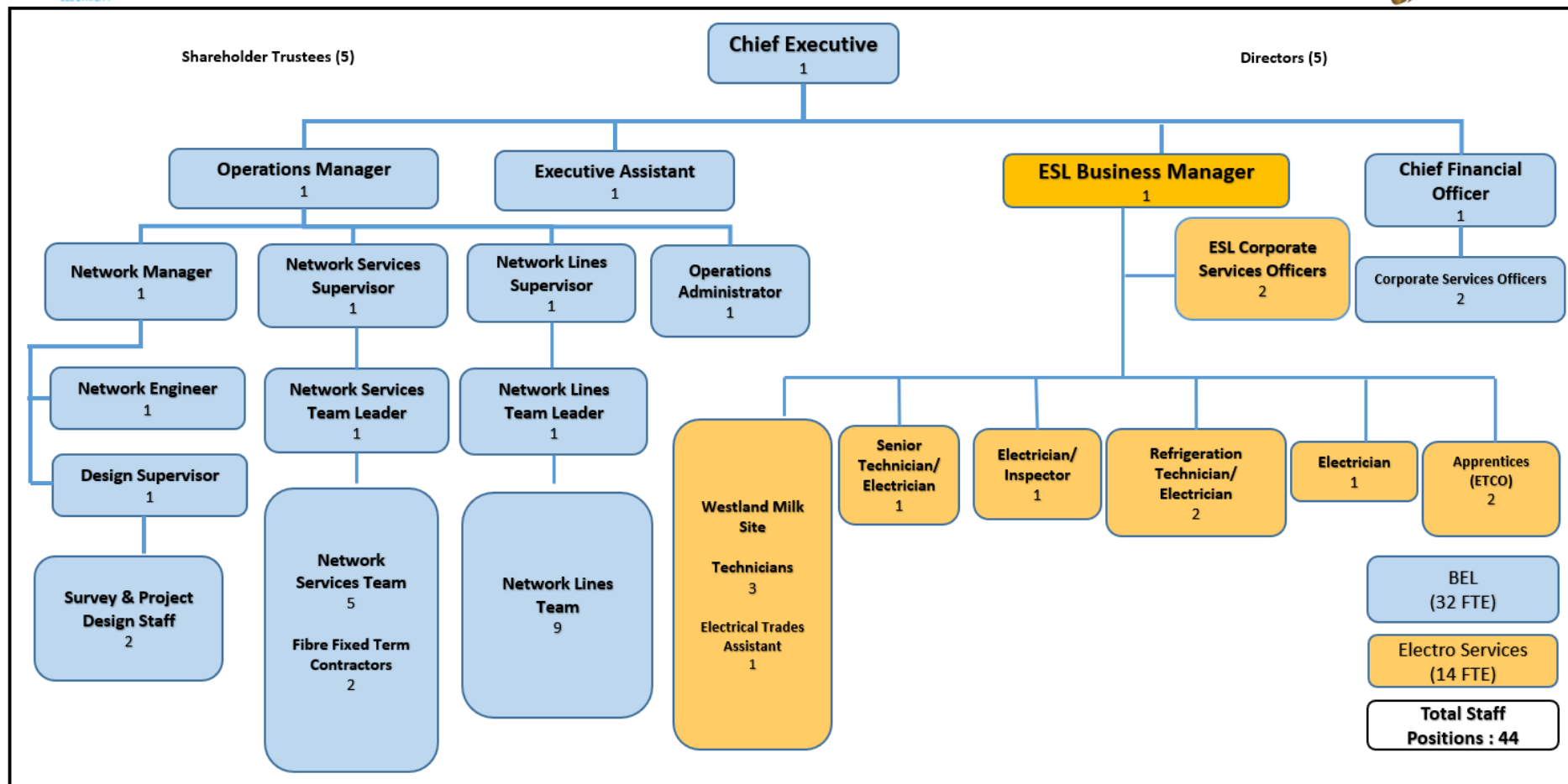
Review of exemptions on the Authority website confirmed that there are no exemptions in place relevant to the scope of this audit.

1.2. Structure of Organisation

BUEL's organisational structure was provided for the audit:



Buller Electricity / Electro Services – Structure at February 2019



1.3. Persons involved in this audit

Auditor:

Rebecca Elliot

Veritek Limited

Electricity Authority Approved Auditor

BUEL personnel assisting in this audit were:

Name	Title
Alan Hawes	Operations Manager
Chris Osauskas	Network Engineer

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 fulfilment 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

All activities are completed directly by BUEL.

1.5. Supplier list

All activities are completed directly by BUEL.

1.6. Hardware and Software

BUEL use the registry as the main data source. An Access based database called "NED NEWCONN" is used to create ICPs and manage new connections and distributed generation processes. The database interfaces to the registry. BUEL has a stand-alone GIS system.

Back-ups are carried out to industry standards.

1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been no alleged breaches related to this audit scope for BUEL for the audit period.

1.8. ICP and NSP Data

BUEL owns and operates the electricity networks in the Buller district.

The table below lists the relevant NSPs and their associated balancing area, and the number of active ICPs connected.

Distributor	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	No of ICPs
BUEL	ORO1101	BUEL	OROWAITI			ROBERTSBUEL	1/05/08	
BUEL	ORO1102	BUEL	OROWAITI			ROBERTSBUEL	1/05/08	

There are no embedded networks connected to BUEL and BUEL does not own any embedded networks.

A list file detailing the ICP statuses was provided:

Status	Number of ICPs (15 Mar 19)	Number of ICPs (3 Oct 17)
New (999,0)	2	-
Ready (0,0)	3	-
Active (2,0)	4,673	4,629
Distributor (888,0)	0	-
Inactive – new connection in progress (1,12)	6	2
Inactive – electrically disconnected vacant property (1,4)	141	159
Inactive – electrically disconnected remotely by AMI meter (1,7)	14	16
Inactive – electrically disconnected at pole fuse (1,8)	1	1
Inactive – electrically disconnected due to meter disconnected (1,9)	1	1
Inactive – electrically disconnected at meter box fuse (1,10)	0	0
Inactive – electrically disconnected at meter box switch (1,11)	0	0
Inactive – electrically disconnected ready for decommissioning (1,6)	77	80
Inactive – reconciled elsewhere (1,5)	0	0
Decommissioned (3)	316	214

1.9. Authorisation Received

An authorisation email was provided.

1.10. Scope of Audit

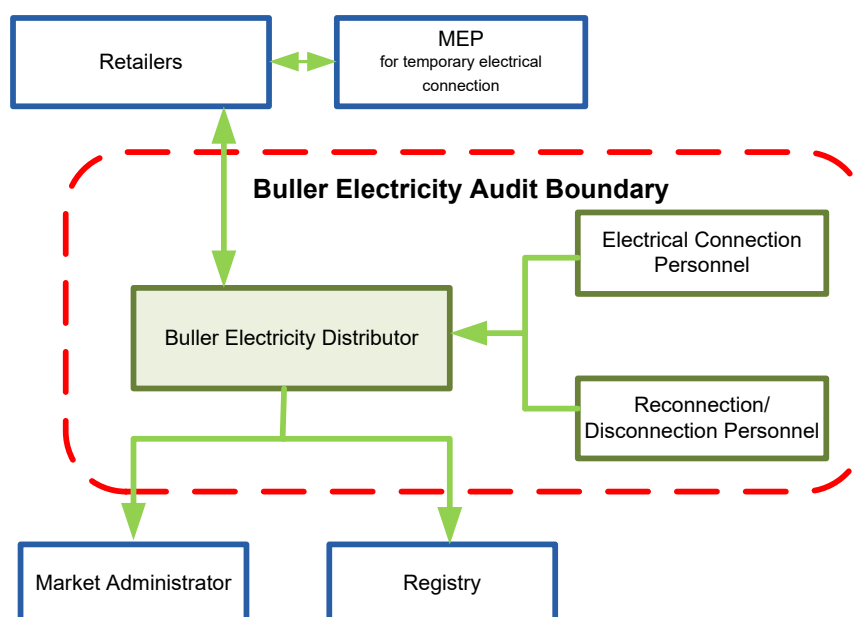
This Distributor audit was performed at the request of BUEL, to encompass the Electricity Industry Participation Code requirement for an audit, in accordance with clause 11.10 of part 11.

The audit was conducted in accordance with the Guideline for Distributor Audits V7.2, which was produced by the Electricity Authority.

The table below shows the tasks under clause 11.10(4) of Part 11, which BUEL is responsible for. There are no other contractors who assist with these tasks:

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

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



1.11. Summary of previous audit

The October 2017 Distributor audit was completed by Paul Troon. The audit found four non-compliances and made no recommendations. The current status of the matters raised are detailed in the table below:

Subject	Section	Clause	Non-compliance	Status
Initial Energisation Date	3.5	7(2A) of schedule 11.1	Late provision of the initial energisation date.	Still existing
Connection of ICP that is not an NSP	3.6	11.17	Trader approval not obtained prior to connection of 1 ICP.	Still existing
Trader requests connection of ICP	3.7	10.28(7)	1 ICP connected without trader request.	Still existing
Changes to registry information	4.1	8 Schedule 11.1	Changes not provided within 3 business days.	Still existing

2. OPERATIONAL INFRASTRUCTURE

2.1. Requirement to provide complete and accurate information (Clause 11.2(1) and 10.6(1))

Code reference

Clause 11.2(1) and 10.6(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 Parts 10 or 11 is:

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

Audit observation

I walked through the process to ensure that registry information is complete, accurate and not misleading or deceptive, including viewing reports used to resolve discrepancies.

The registry list file as at 15/03/2019 was examined to confirm compliance.

Audit commentary

BUEL uses the registry as their main data source. automatically downloads a RSICPLIST list file daily into the NED Database and automatically runs a number of data & process checks using access queries. These data queries include checks related to:

- ICPs that have been at the “New” or “Ready” status for more than 20 months;
- network attributes;
- pricing attributes; and
- electrical connection date missing i.e. ICP is active but has no electrical connection date recorded.

Any anomalies identified are investigated and corrected.

Analysis of the list file found some incorrect initial electrical connection dates recorded and I recommend below that a validation be added to identify these. This is discussed further in **section 4.6**.

I recommend that the following validations be added:

1. alignment of initial electrical connection dates against the trader’s first active date and the meter certification;
2. check for any ICPs at the “inactive - new connection in progress” (status 1,12) at this status for 20 months or more;
3. check for active ICPs with a profile indicating distributed generation is present e.g. RPS PV1, RPS EG1 where BUEL has no distributed generation recorded; and
4. all ICPs pending decommissioning (status 1,6).

Recommendation	Description	Audited party comment	Remedial action
Requirement to provide complete and accurate information	Add additional validations identified above to improve data accuracy.	See BEL audit actions taken below	Identified

Examination of the list file found 628 price code events, and none were backdated. This was discussed and BUEL will on occasion backdate price changes in their network billing, but these changes do not get backdated on the registry. There were three such instances identified during the audit period. As discussed in **section 4.1**, the Authority expects the price category code to be recorded on the registry for the correct dates so that they align with the network billing. If they do not, then this creates line charge billing discrepancies which the trader will need to investigate as the EIEP1 will contain different information than is being billed by BUEL to the trader. This is recorded as non-compliance below and in **section 4.6**.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: 11.2(1) From: 01-Oct-17 To: 15-Mar-19	Registry information not complete and accurate in all instances. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	The controls are rated as moderate as the checks in place identify most potential discrepancies but not all. The audit risk rating is low as the discrepancies identified have a minor impact on other participants.
Actions taken to resolve the issue	
Completion date	Remedial action status

<p>The recommended Registry data checks have been implemented as detailed below (item number link to the list above):</p> <ol style="list-style-type: none"> 1. The query Qry_RGST_EDA_NEWCONN_IECD_Check has been created and demonstrated to capture the inconsistent IECD dates identified in the Distributor Audit e.g. when IECD date and first ACTIVE status date are not the same. This query will be run using up to date Registry EDA Event Data on a monthly basis with any identified inconsistencies being reported to Senior Management and the Board as newly created KPI's. A key aspect of this reporting is that it will provide BEL with information about this important aspect of the new connection process on a more regular basis – rather than only at the time of the Distributor Audit. 2. A check for this Registry data condition has been added to the query Qry_RSICPLIST_ICP_Not_Commissioned_Errors which is run automatically as part of the daily NED database Registry data checks each morning. 3. A check for these Registry data conditions have been included in the new query Qry_RSICPLIST_DG_Checks which is run automatically as part of the daily NED database Registry data checks each morning 4. BEL has significantly developed and improved the existing NED DECOM ICP Event so we are able to more readily identify and process the decommissioning of ICPs. The query Qry_DECOM_Process_Checks_3_B has been added to the automatic daily DECOM process checks. This query identifies ICPs which have recently been shifted to the status 1,6 (INACTIVE Ready for Decommissioning) and for which BEL does not have an existing open NED DECOM Event (ICP decommissioning). Once the NED DECOM process event is created BEL can follow through with the physical and Registry decommissioning process using the NED DECOM process. Alternatively, a NED DECOM event can be created when a decommission job request is received from a Trader. The back log of 77 ICPs with are currently in the status 1,6 will be dealt with separately and we intend to investigate and process these cases over the next 3-6 months. <p>BEL has put a pricing policy in place where all billing corrections & PCC changes will now be back dated on the Registry. Billing corrections will be back dated by more than 3 days only in complex cases which cannot possibly be resolved in less than 3 days. BEL will accept the resulting non-compliance which we have been informed is common place in the industry.</p>	1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	

<p>The recommended Registry data checks have been implemented as discussed above.</p> <p>BEL has put a pricing policy in place where all billing corrections & PCC changes will now be back dated on the Registry. Billing corrections will be back dated by more than 3 days only in complex cases which cannot possibly be resolved in less than 3 days. BEL will accept the resulting non-compliance which we been informed is common place in the industry.</p>	1/5/2019	
---	----------	--

2.2. Requirement to correct errors (Clause 11.2(2) and 10.6(2))

Code reference

Clause 11.2(2) and 10.6(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

BUEL's data management processes were examined. The registry list file as at 15/03/19 was examined to confirm compliance.

Audit commentary

BUEL have processes in place to identify and resolve registry discrepancies as described in **section 2.1**. Not all discrepancies are being identified and therefore are not being corrected. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: 11.2(2) From: 01-Oct-17 To: 15-Mar-19	Errors not corrected as soon as practicable. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as the checks in place identify most potential discrepancies but not all. The audit risk rating is low as the incorrect initial electrical connection dates are not used directly in the reconciliation process.		
Actions taken to resolve the issue		Completion date	Remedial action status
The recommended Registry data checks have been implemented as discussed above (see BEL Comment 2.1).		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The recommended Registry data checks have been implemented as discussed above (see BEL Comment 2.1).		1/5/2019	

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 in detail and is described in **section 3.2**.

A diverse characteristics sample of 15 new connection applications of the 50 created since 01/10/17 were checked from the point of application through to when the ICPs were created. The sample included ICPs with different traders, price categories, loss categories and NSPs. No new ICPs were created during the audit period with unmetered load or distributed generation.

Audit commentary

BUEL creates ICPs as required by clause 1 of schedule 11.1. This process is managed in ICP Creation module of the NED access database as part of the NEWCONN ICP Event (new connection process). The ICP number is determined based on the ICP numbers in the vicinity. These were originally 7-digit BEL account numbers with the first 2 digits representing the associated meter reading round. The NED database adds the correct number of leading zeros to the 7-digit account number, appends the BU distributor code, and then determines the appropriate trailing check sum to complete the ICP number.

Audit outcome

Compliant

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 in detail. A diverse characteristics sample of 15 new connection applications of the 50 created since 01/10/17 were checked from the point of application through to when the ICPs were created. There were no new connections with unmetered load or distributed generation recorded but the process of capturing these was discussed.

Audit commentary

BEL receives all applications for new connections from customers or their agents. The application form details all the information required to create a new ICP. This information is loaded into the NED NEWCONN ICP Event. Once the ICP is created at the “New” status on the Registry an automatically generated email notification is sent to the trader nominated by the applicant with the pending ICPs details requesting them to accept the nomination. The ICP is moved to the “Ready” status once trader acceptance has been received. As no requests are received directly from the trader the 3-day rule to create ICPs is not applicable. The timeliness of these updates to the registry are discussed in **section 3.4**.

Audit outcome

Compliant

3.3. Provision of ICP Information to the registry manager (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

A diverse characteristics sample of 15 new connection applications of the 50 created since 01/10/17 were checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice. There were no new connections with unmetered load or distributed generation recorded but the process of capturing these was discussed.

Audit commentary

The new connection process is detailed in **section 3.2**. All of the information was populated as required by this clause except for eight (20%) of the 39 completed new connections. The eight ICPs were electrically connected prior to having the trader recorded on the registry. BUEL were under the impression from the previous auditor that they must use the “New” status when creating new connections. The code defines the “New” status as:

“New” status

The ICP status of “New” must be managed by the relevant **distributor** and indicates that—

- (a) the associated **electrical installations** are in the construction phase; and
- (b) the ICP is not ready for the **trader** to authorise the **electrical connection** of the ICP.

The ICPs in question were not in a construction phase but were held at the “New” status until the trader had confirmed their acceptance. If the trader is slow in providing this, it creates non-compliance for both BUEL and the trader. BUEL has a blanket agreement in place with one trader and I recommend that where possible BUEL this is put in place with all traders so that ICPs are created at the “ready” status in the first instance. This will enable traders to nominate MEPs and make the ICP active without delay.

Recommendation	Description	Audited party comment	Remedial action
Provision of ICP information to the registry	Get blanket trader acceptance agreements in place so ICPs can be created at "ready" wherever possible.	BEL will seek to enter into trader acceptance agreements prior to the end of the 2019 calendar year so that ICPs can be created in the 'Ready' status. The NED NEWCONN ICP Event/Process will be modified to account for this variation in the new connection process.	Identified

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.3</p> <p>With: 11.7</p> <p>From: 19-Dec-17</p> <p>To: 16-Jan-19</p>	<p>Nominated trader not provided for 8 ICPs prior to electrical connection.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as weak as the information for 20% of the ICPs electrically connected during the audit period was not provided prior to electrical connection.</p> <p>The audit risk rating is low as the overall volume of ICPs affected is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>BEL staff involved in the new connections process (NED NEWCONN ICP Event) have been given clear instructions to ensure that Trader acceptance is received and the Registry is updated with this information prior to electrical connection.</p> <p>Improved monitoring of the new connection process has been implemented.</p>		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		1/5/2019	

3.4. Timeliness of Provision of ICP Information to the registry manager (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 event detail report for 01/10/17 to 15/03/19 was examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The process is described in **section 3.3**. 50 new ICPs have been created since 01/10/17. Of those, 39 have been electrically connected. I reviewed the completed new connections on the event detail report to identify any ICPs where information was provided late and found eight (20%) of these were updated after they had commenced trading electricity. These were examined and found:

- six were updated late due to late trader acceptance; and
- two were updated late due to not being actioned by BUEL.

I make a recommendation for a process improvement in **section 3.3**. The late updating of the registry for eight new connections is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.4</p> <p>With: Clause 7(2) of Schedule 11.1</p> <p>From: 19-Dec-17</p> <p>To: 16-Jan-19</p>	<p>Registry not updated prior to commencement of trading for eight ICPs.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Weak</p> <p>Breach risk rating:3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as weak as the information for 20% of the ICPs electrically connected during the audit period was not provided prior to electrical connection.</p> <p>The audit risk rating is low as the overall volume of ICPs affected is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>BEL staff involved in the new connections process (NED NEWCONN ICP Event) have been given clear instructions to ensure that Trader acceptance is received and the Registry is updated with this information prior to electrical connection.</p> <p>A key step taken is the re-introduction of the involvement of the BEL Network Controller in the new connection process. The electrical inspector signing off the new connection must now communicate with the Network Controller before and after electrical connection occurs.</p> <p>Electrical connection cannot proceed unless the Network Controller has a hard copy of the appropriate IECD paper work (BEL Part C Form). This paper work can only be created in the NED NEWCONN process once the Trader has accepted an ICP and a proposed electrical connection date is set.</p> <p>In addition, BEL has made improvements to the monitoring of new connection and on-going staff training.</p>		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		1/5/2019	

3.5. Timeliness of Provision of Initial Electrical Connection 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 manager no later than 10 business days after the date on which the ICP is initially electrically connected.

Audit observation

The event detail report and the registry list for 01/10/17 to 15/03/19 were examined to determine the timeliness for the 39 completed new connections. The accuracy of the initial electrical connection dates is discussed in **section 4.6**.

All ICPs where an initial electrical connection date was populated but the trader did not record active status were identified and checked.

Audit commentary

The field staff are required to call into the Network Controller and advise when an ICP has been livened. They fill in a form indicating the ICP livening details. These are then scanned and sent to a shared inbox for the admin team to populate the initial electrical connection date in the NED NEWCONN database. This then writes to the registry.

The 39 completed new connections were reviewed:

- 33 (85%) had initial electrical connection dates updated within ten business days;
- six (15%) had initial electrical connection dates populated more than ten business days after initial electrical connection; of those, four were populated within 20 business days of connection (these were all due to the process not being followed by staff and the daily registry validation check in place, and a reminder to staff to follow the expected process should prevent this happening in the future).

The accuracy of the initial electrical connection dates is discussed in **section 4.6**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.5</p> <p>With: Clause 7(2A) of Schedule 11.1</p> <p>From: 15-Mar-18</p> <p>To: 10-Jan-19</p>	<p>Late population of the initial electrical connection date for six ICPs (15%).</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>Controls are rated as moderate as the discrepancy reporting will identify these, but it will always be reliant on staff actioning these.</p> <p>The audit risk rating is low as the volume of ICPs affected is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>BEL staff involved in the new connections process (NED NEWCONN ICP Event) have been given clear instructions to ensure that Trader acceptance is received and the Registry is updated with this information prior to electrical connection.</p> <p>A key step taken to ensure the IECD is populated within 10 business days is the re-introduction of the involvement of the BEL Network Controller in the new connection process. The electrical inspector signing off the new connection must now communicate with the Network Controller before and after electrical connection occurs.</p> <p>Electrical connection cannot proceed unless the Network Controller has a hard copy of the appropriate IECD paper work (BEL Part C Form). This paper work can only be created in the NED NEWCONN process once the Trader has accepted an ICP and a proposed electrical connection date is set.</p> <p>In addition, BEL has made improvements to the monitoring of new connection and on-going staff training. Inconsistencies in the first Active and IECD dates are now reported on a monthly basis to give on-going feedback on the performance of our new connections process.</p>		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		1/5/2019	

3.6. Connection of ICP that is not an NSP (Clause 11.17)

Code reference

Clause 11.17

Code related audit information

A distributor must, when connecting an ICP that is not an NSP, follow the 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 in **section 3.2**.

The event detail file and registry list were examined to determine compliance.

Audit commentary

The new connection process requires all traders nominated to be accepted before the ICP is moved to the “ready” status.

Review of the registry list confirmed that a trader is currently recorded for all active and inactive ICPs, and no shared unmetered load is recorded on BUEL’s network.

I reviewed the 50 ICPs made “ready” during the audit period and found eight ICPs that were connected prior to a trader being recorded in the registry as required by this clause. These are discussed further in **section 3.4**.

The late update of the registry for eight new connection is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.6</p> <p>With: Clause 11.17</p> <p>From: 19-Dec-17</p> <p>To: 16-Jan-19</p>	<p>Eight ICPs were connected before proposed trader information was provided to the registry.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice previously</p> <p>Controls: Weak</p> <p>Breach risk rating:3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as weak the information for 20% of the ICPs connected during the audit period was not provided prior to electrical connection.</p> <p>The audit risk rating is low as the overall volume of ICPs affected is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Staff involved in the new connections process (NED NEWCONN ICP Event) have been given clear instructions to ensure that Trader acceptance is received and the Registry is updated with this information prior to electrical connection.</p> <p>A key step taken is the re-introduction of the involvement of the BEL Network Controller in the new connection process. The electrical inspector signing off the new connection must now communicate with the Network Controller before and after electrical connection occurs.</p> <p>Electrical connection cannot proceed unless the Network Controller has a hard copy of the appropriate IECD paper work (BEL Part C Form). This paper work can only be created in the NED NEWCONN process once the Trader has accepted an ICP and a proposed electrical connection date is set.</p> <p>In addition, BEL has made improvements to the monitoring of new connection and on-going staff training.</p>		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		1/5/2019	

3.7. 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 an NSP unless requested to do so by the trader trading at the ICP.

Audit observation

The new connection process was examined and is detailed in **section 3.2**. A diverse characteristics sample of 15 new connection applications of the 50 created since 01/10/17 were checked to determine if the ICPs were connected at the request of the trader.

Audit commentary

As detailed in **section 3.4**, ICPs should not be connected before a trader has accepted them. Analysis of the new connections completed during the audit period found eight new connections that were electrically connected prior to the trader accepting and therefore before the trader had requested the ICP to be connected. This is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.7</p> <p>With: Clause 11.17</p> <p>From: 19-Dec-17</p> <p>To: 16-Jan-19</p>	<p>Eight ICPs electrically connected before proposed trader permission was provided.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as weak the information for 20% of the ICPs connected during the audit period was not provided prior to electrical connection.</p> <p>The audit risk rating is low as the overall volume of ICPs affected is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Staff involved in the new connections process (NED NEWCONN ICP Event) have been given clear instructions to ensure that Trader acceptance is received and the Registry is updated with this information prior to electrical connection.</p> <p>A key step taken to ensure the IECD is populated within 10 business days is the re-introduction of the involvement of the BEL Network Controller in the new connection process. The electrical inspector signing off the new connection must now communicate with the Network Controller before and after electrical connection occurs.</p> <p>Improvements to the new connection process monitoring have been made along with on-going staff training.</p> <p>Reporting of inconsistencies in the first Active and IECD dates to provide monthly performance monitoring.</p>		30/4/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		1/5/2019	

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

Code reference

Clause 10.31A

Code related audit information

A distributor may only temporarily electrically connect an ICP that is not an NSP if requested by an MEP for a purpose set out in clause 10.31A(2), and the MEP:

- *has been authorised to make the request by the trader responsible for the ICP; and*
- *the MEP has an arrangement with that trader to provide metering services.*

Audit observation

The new connection process was examined in **section 3.2**. The event detail file and registry list for 01/10/17 to 15/03/19 were examined to determine compliance.

Audit commentary

The majority of new connections are permanent connections. Analysis found no temporarily electrically connected sites that did not have trader permission as required by this clause.

Audit outcome

Compliant

3.9. Connection of NSP that is not point of connection to grid (Clause 10.30)

Code reference

Clause 10.30

Code related audit information

A distributor must not connect an NSP on its network that is not a point of connection to the grid unless requested to do so by the reconciliation participant responsible for ensuring there is a metering installation for the point of connection.

The distributor must, within five business days of connecting the NSP that is not a point of connection to the grid, advise the reconciliation manager of the following in the prescribed form:

- *the NSP that has been connected*
- *the date of the connection*
- *the participant identifier of the MEP for each metering installation for the NSP*
- *the certification expiry date of each metering installation for the NSP.*

Audit observation

The NSP table was reviewed.

Audit commentary

No new NSPs were created by BUEL during the audit period.

Audit outcome

Compliant

3.10. Temporary electrical connection of NSP that is not point of connection to grid (Clause 10.30(A))

Code reference

Clause 10.30(A)

Code related audit information

A distributor may only temporarily electrically connect an NSP that is not a point of connection to the grid if requested by an MEP for a purpose set out in clause 10.30A(3), and the MEP:

- has been authorised to make the request by the reconciliation participant responsible for the NSP; and*
- the MEP has an arrangement with that reconciliation participant to provide metering services.*

Audit observation

The NSP table was reviewed.

Audit commentary

Any NSPs that are temporarily electrically connected follow the same process as all other new connections. No temporarily connected NSPs were identified.

Audit outcome

Compliant

3.11. 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 Authority.*

Audit observation

The process for the creation of ICPs was examined.

Audit commentary

The process for the creation of ICPs is detailed in **section 3.1**. All ICPs are created in the appropriate format.

Audit outcome

Compliant

3.12. 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

The process of allocation of the loss category was examined.

The list file as at 15/03/19 was examined to confirm all active ICPs have a single loss category code.

Audit commentary

Loss factors are determined from the information provided on application for a new connection.

The registry list was examined and all active and inactive ICPs have a single loss category code. Each loss category code clearly identifies the relevant loss factor.

Audit outcome

Compliant

3.13. 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 was reviewed. The event detail file and registry list for 01/10/17 to 15/03/19 were examined to determine compliance.

Audit commentary

The ICP creation process is detailed in **section 3.2**. All ICPs are created at the “New” status until the trader accepts the nomination. The use of this status is compliant until the trader accepts the nomination but I recommend in **section 3.2** that BUEL put blanket agreements in place to enable them to create ICPs at the “Ready” status wherever possible and remove the current delays caused when traders fail to accept the individual nominations being sent.

Monitoring of ICPs with the “New” and “Ready” status is discussed in **section 3.14**.

Audit outcome

Compliant

3.14. 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 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

The process to monitor ICPs at the “New” and “Ready” statuses was reviewed. The event detail file and registry list for 01/10/17 to 15/03/19 were examined to determine compliance.

No ICPs with “New” or “Ready” status were at this status for more than 24 months.

Audit commentary

The process to monitor ICPs at the “New” and “Ready” statuses is run as part of the daily checks. This identifies any ICPs that have been at this status for 20 months. A check is made with the trader to confirm if the ICP is still required for any ICPs identified.

Audit outcome

Compliant

3.15. 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:*
 - *the unique loss category code assigned to the ICP*
 - *the ICP identifier of the ICP*
 - *the NSP identifier of the NSP to which the ICP is connected*
 - *the plant name of the embedded generating station.*

Audit observation

The registry list for 01/10/17 to 15/03/19 was examined to determine compliance.

Audit commentary

No embedded generation stations with capacity greater than 10 MW were connected during the audit period.

Audit outcome

Compliant

3.16. Electrical connection of a point of connection (Clause 10.33A)

Code reference

Clause 10.33A

Code related audit information

- (1) A reconciliation participant may electrically connect a point of connection, or authorise the electrical connection of a point of connection, only if—*
 - (a) the reconciliation participant is recorded in the registry as being responsible for the ICP; and*
 - (b) one or more certified metering installations are in place at the ICP in accordance with this Part; and*
 - (c) in the case of an ICP that has not previously been electrically connected, the owner of the network to which the point of connection is connected has given written approval of the electrical connection.*
- (2) A reconciliation participant described in sub-clause (1)(a)—*
 - (a) may authorise the electrical connection of an ICP if—*
 - (i) a metering installation is in place at the ICP; and*
 - (ii) the metering installation is operational but not certified; and*
 - (iii) the reconciliation participant arranges for the certification of the metering installation to be completed within five business days of the ICP being electrically connected;*
 - (b) may electrically connect an ICP if the point of connection is solely for unmetered load.*
- (3) A reconciliation participant must not authorise the electrical connection of a point of connection in either of the following circumstances:*
 - (a) a distributor has electrically disconnected the point of connection for safety reasons, and has not subsequently approved the electrical connection of the point of connection;*
 - (b) electrically connecting the point of connection would breach the Electricity (Safety) Regulations 2010.*
- (4) No participant may electrically connect a point of connection or authorise the electrical connection of a point of connection, other than a reconciliation participant in the circumstances described in subclause (1), (2), or (3).*

Audit observation

Sub-clause (4) states that no participant may electrically connect a point of connection without the permission of the Reconciliation Participant. The electrical connection of street light circuits which are a point of connection was examined.

Audit commentary

The connection of street light circuits was discussed. There are no new subdivisions planned or expected in the near future therefore this is an unlikely event. BUEL understand this requirement if it were to arise.

Audit outcome

Compliant

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 give written notice to the registry manager 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

The management of registry updates was reviewed.

The event detail report for 01/10/17 to 15/03/19 was reviewed to determine compliance. All backdated events were reviewed to determine the reasons for the late updates.

The management of NSP changes was examined.

Audit commentary

All updates to the registry apart from those relating to new connections and distributed generation connections are updated directly in the registry by the user.

The event detail report was examined to identify backdated event updates.

Address events

67 address updates were made. All were updated for the same event date with the exception of three ICPs (5%). All were updated late due to the operator not updating the event date. The registry defaults the event to the last event date if this is not updated and therefore these updates are recorded as backdated events. This has no material effect.

Network events

There were six network events that did not relate to the initial population of trader and initial electrical connection dates for new connections (which are discussed separately in **sections 3.4 and 3.5**). All but one of these were updated within three business days of the event. ICP 0003443230BUEAC was updated late due to the late notification of distributed generation being installed.

Pricing events

628 pricing updates were identified. BUEL does not backdate price change events but will adjust the invoicing to a trader for any ICPs with incorrect price codes. The Authority expects the price category code to be recorded on the registry for the correct dates so that they align with the network billing. If they do not, then this creates line charge billing discrepancies which the trader will need to investigate as the EIEP1 will contain different information than is being billed by BUEL to the trader. There were three such instances identified during the audit period. This is recorded as non-compliance in **sections 2.1 and 4.6**.

Status events

The decommissioning process is discussed in **section 4.11**. BUEL is reviewing the decommissioning process to ensure that the information is provided as quickly as possible to the registry.

21 status updates to decommissioned were identified. 16 of these (76%) were updated more than three business days after the event. 13 were updated more than 30 business days after the event. All of the late updates were examined. There are a total of 77 ICPs pending decommissioning which is a relatively high number considering the size of the network. BUEL have been working through the list of historic ICPs that have been at this status for some time to determine if they can be or are already decommissioned. The 16 ICPs that were backdated were examined and found that they were either backdated to the correct date of decommissioning or the event date was not updated correctly in the registry and therefore they appear to be backdated. BUEL now have a good understanding of this requirement and will in future record the actual date of decommission, or the date the ICP was confirmed to have been decommissioned if sometime in the past but that date is unknown. Therefore, they are technically non-compliant with this clause for backdating the event but more importantly going forward the record will be as complete and accurate as BUEL are able to determine.

Change of NSP

The process of NSP changes was examined. BUEL have advised that the network is fed in parallel by either one or the other NSP with no one NSP being the prevalent NSP and therefore the requirement to record NSP changes is not applicable. This is discussed further in **section 4.2**. There were no NSP changes identified for the audit period.

The backdating of events to the registry is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.1 With: Clause 8 Schedule 11.1 From: 1/10/17 To: 15/03/19	Three address, one network and 16 decommission status updates were updated more than three business days after the event date. Potential impact: None Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
Low	Controls are rated as moderate as the volume is small and despite the registry being updated using the registry interface the error rate is low. The risk rating is low, as none of the backdated events directly affected reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
<p>BEL has implemented an improved ICP Decommissioning process using the NED DECOM ICP Event. Clear rules/guidelines are now in place for the event dates which are to be used for Registry updates to ensure compliance. Staff training in the use of the NED DECOM process has been undertaken. BEL intends to clear & resolve the historic back log of ICPs in the 'Ready for Decommissioning' status in the coming 3-6 months.</p> <p>BEL has put a pricing policy in place where all billing corrections & PCC changes will now be back dated on the Registry. Billing corrections will be back dated by more than 3 days only in complex cases which cannot possibly be resolved in less than 3 days. BEL will accept the resulting non-compliance which we been informed is common place in the industry.</p> <p>For manual Registry updates using the web interface, human/user error in terms of inputting an appropriate event date is an on-going risk. BEL has previously raised this issue with Jade Software and this led to the Registry update process being changed to indicate if an update is back dated by more than 3 days. BEL requested that a warning be given prior to the update being processed if an update is back dated by more than 3 day, but this was not implemented.</p> <p>BEL has now created a Distributed Generation connection process in the NED database (DGCONN ICP Event) which will allow for better monitoring of this process. This will allow for more active monitoring of the Distributed Generation connection process. Daily Registry data checks are now being used to identify unknown distribution sites by cross-checking against ICPs with PV profiles.</p>	1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>On-going system improvements, process monitoring and staff training.</p> <p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>	1/5/2019	

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

Code reference

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

Code related audit information

Under Clause 7(1)(b) of Schedule 11.1, the distributor must provide to the registry manager the NSP identifier of the NSP to which the ICP is usually connected.

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

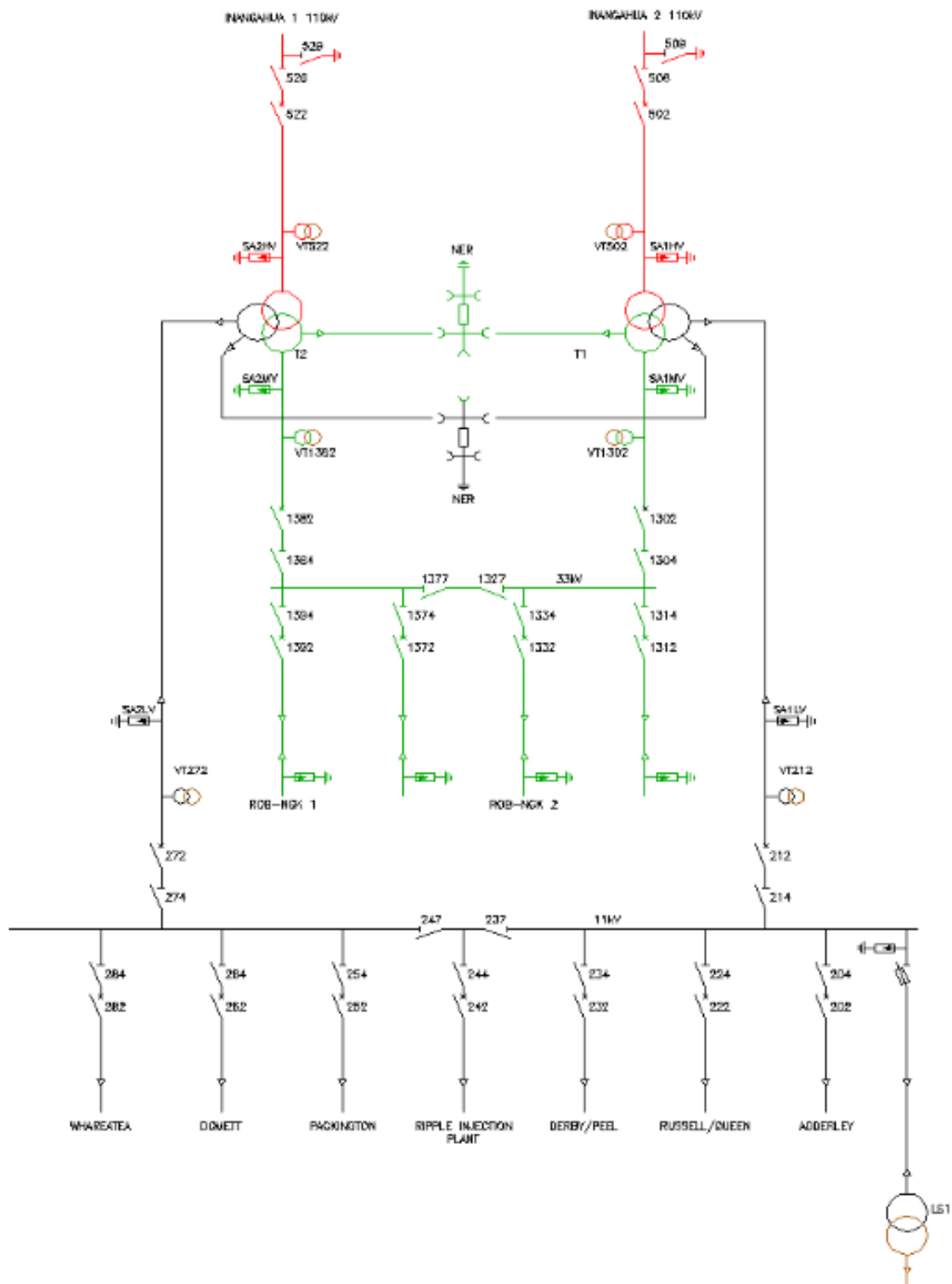
The process to determine the correct NSP was examined. The registry list and event detail report for 01/10/17 to 15/03/19 were reviewed to determine compliance. 15 streets with active ICPs connected to more than one NSP were checked.

Audit commentary

Each ICP application is checked in the GIS and the NSP that the surrounding ICPs are connected to is the NSP allocated.

The process of NSP changes was examined. BUEL have advised that the network is fed in parallel by either one or the other NSP with no one NSP being the prevalent NSP and therefore the requirement to record NSP changes is not applicable. This is detailed in the diagram below:

Figure 23 Robertson Street Single Line Diagram



The Electricity Authority are reviewing this information and will provide direction to BUEL in regards to the NSP change requirement. Therefore, I am unable to determine compliance.

Examination of the list file identified 18 streets with more than one NSP allocated in a street. I recommend these are investigated to determine if the NSP allocated is the NSP that the ICP is fed from the majority of the time:

Row Labels	ORO1101	ORO1102	Grand Total	%	ICPs		
Adderley Street	1	23	24	4%	0000200745BU062		
Greenfield Street	1	21	22	5%	0002650338BU1DC		
Torea Street	1	147	148	1%	0002967835BU6BF		
Utopia Road	3	59	62	5%	0001539185BUFB5	0001539189BUCAB	0001539204BU5B9
Brougham Street	157	1	158	1%	0003970516BU81A		
Cobden Street	39	1	40	3%	0000304212BU249		
Cook Street	44	2	46	4%	0003069225BU77C	0003069253BU3AE	
Domett Street	98	2	100	2%	0003970228BU37B	0003970229BUF3E	
Eastons Road	62	1	63	2%	0003970260BU3CA		
Fonblanque Street	54	3	57	5%	0003970219BU8C6	0003970258BU626	0003990003BU780
Harkness Place	21	1	22	5%	0003970215BUBD8		
Henley Street	59	2	61	3%	0000304394BUF88	0003990197BU069	
Lyndhurst Street	49	1	50	2%	0003990000BUB40		
Peel Street	200	1	201	0%	0003970243BU25F		
Queen Street	202	1	203	0%	0001623702BUB26		
Rintoul Street	49	2	51	4%	0003970235BU68D	0002229880BUDD2	
Russell Street	161	1	162	1%	0003970217BUB5D		
Wakefield Street	73	1	74	1%	0000201698BUADF		

Recommendation	Description	Audited party comment	Remedial action
Notice of NSP for each ICP	Confirm that the NSP allocated for the ICPs detailed is correct.	Previous audits did not identify this as an area of non-compliance. BEL is of the view that the existing NSP assignments meet the requirements of the Code. Prior to making any changes BEL awaits advice from the Authority as requested by the Auditor.	Investigating

Audit outcome

Unable to determine

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

Requests for ICP identifiers are provided immediately on request once the address has been confirmed.

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 process to determine correct and unique addresses was examined. The registry list as at 15/03/19 was reviewed to determine compliance for all active and inactive ICPs.

Audit commentary

BUEL records the GPS co-ordinates for all new connections and has done so for some time. Addresses are determined by locating these in the GIS. 95 ICPs have GSP co-ordinates. A sample of five ICPs were checked and confirmed they were recorded in the correct format.

A check of the list file found no duplicate addresses. Three inactive vacant ICPs had addresses that had only a lot number recorded. These were all checked and located. The GPS co-ordinates have been added to these to make these readily locatable.

Audit outcome

Compliant

4.5. Electrically disconnecting an ICP (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 electrically disconnected without electrically disconnecting 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 the 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 discussed.

Audit commentary

For new connections, this clause is well understood and there are no shared service mains on the BUEL network.

Audit outcome

Compliant

4.6. Distributors to Provide ICP Information to the Registry manager (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 manager:

- *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 one 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*
- *the initial electrical connection date of the ICP (Clause 7(1)(p) of Schedule 11.1).*

Audit observation

The management of registry information was reviewed. The registry list as at 15/03/19 was reviewed to determine compliance.

A typical sample of data discrepancies were checked.

Audit commentary

Registry data validation processes are discussed in **section 2.1**. All ICP information was checked and confirmed compliant unless discussed below:

NSPs

Assignment of NSPs is discussed in **section 4.2**.

Installation type and generation details

The distributed generation process was examined.

There are only a small number of companies installing this in the BEL network area and they generally have a good understanding of the BEL process. BEL require an application form to be submitted. This includes an expected installation date. The application details are loaded in to the NED database as a DGCONN ICP Event (Distributed Generation connection). BEL liaise with the applicant and local inspector to confirm the installation & inspection dates. Once an inspection date is confirmed, an email is sent to Electro Services (BEL Subsidiary and meter installation contractor for AMS/Vircom & Trustpower) to confirm the date after which the import/export meter can be installed.

BEL now has strict protocols in place which requires that import/export metering is not installed prior to inspection. Furthermore, both the inspector & meter installer must communicate with the BEL Network Controller before and after the work is completed. This process aligns with the NED NEWCONN process where the Network Controller must have a hard copy of the Distributed Generation connection paperwork, and this paperwork can only be printed once all required steps in the DGCONN ICP Event have been completed. Appointments are also made in the Control Room Outlook Calendar when the inspection date is confirmed.

Analysis of the registry list found 18 ICPs with generation capacity recorded, an increase of two during the audit period. All ICPs with generation capacity have a fuel type and installation type of "B" or "G" recorded on the registry. ICP 0001724785BU3AA has injection/export metering recorded and a profile of RPS V1 on the registry but no generation capacity recorded by BUEL. This was examined and found that the notification process was not followed as expected and the installation had been completed. I recommend in **section 2.1** that validation be added to the daily registry checks to assist in identifying any future instances. This was corrected prior to the site audit. The missing distributed generation details for one ICP is recorded as non-compliance below.

Unmetered load

Part 11 states the distributors must provide unmetered load type and capacity of the unmetered load to the registry “if known”.

There have been no new connections with unmetered load during the audit period.

Review of the registry list identified four active ICPs with unmetered load recorded by the trader and no unmetered load recorded by BUEL. These are all historic.

For the 14 active ICPs with unmetered load recorded by BUEL, the Trader also has unmetered load details populated.

I checked the accuracy of the unmetered load details recorded by BUEL against the trader’s unmetered load details. The load details recorded for ten ICPs is not in the recommended format and therefore the unmetered load cannot be calculated for these ICPs. The load matched for the remaining four ICPs.

Initial Electrical Connection date

I reviewed the 39 completed new connections on the event detail report to confirm whether an initial electrical connection date was recorded, and if the date was consistent with the dates populated by the trader and MEP. Nine had initial electrical connection dates inconsistent with the earliest active date and/or meter certification date. Of those, seven did not match the earliest active date and nine did not match the meter certification date. Those with a date differences were checked, to determine whether BUEL’s records were correct and found:

ICP	First Active Date	Meter Certification	Initial Electrical Connection Date	Comments
0000201675BUF3E	14/11/2018	14/11/2018	6/12/2018	The living date recorded by Network Controller inconsistent with the first active and meter certification date.
0001538654BU010	28/02/2018	1/11/2017	28/02/2018	This is a metered streetlight ICP for Buller DC so it was not a physical new connection but the ICP was created to correctly account for the load against the existing meter. BUEL IECD is correct.
0002749223BUC8C	5/04/2018	3/05/2018	5/04/2018	The BTS meter was never recorded on the registry. BUEL IECD date is correct.
0003443172BUF8F	30/08/2018	30/08/2018	11/09/2018	The living date recorded by Network Controller inconsistent with the first active and meter certification date.
0003534871BU0F3	23/05/2018	23/05/2018	24/05/2018	The living date recorded by Network Controller inconsistent with the first active and meter certification date.
0003866104BU77E	20/12/2018	20/12/2018	6/12/2018	The living date recorded by Network Controller inconsistent with the first active and meter certification date.

ICP	First Active Date	Meter Certification	Initial Electrical Connection Date	Comments
0004357305BUF55	20/12/2018	20/12/2018	10/01/2019	The living date recorded by Network Controller inconsistent with the first active and meter certification date.
0004458290BU892	11/10/2018	11/10/2018	30/10/2018	The living date recorded by Network Controller inconsistent with the first active and meter certification date.
0003069134BU297	6/12/2017	28/02/2018	28/02/2018	This is a metered streetlight ICP for Buller DC so it was not a physical new connection but the ICP was created to correctly account for the load against the existing meter. BUEL IECD is correct and the trader has corrected the first active date since the list file was provided.

Six ICPs have an incorrect initial electrical connection date recorded. BUEL's operation manager is working with the network controllers to ensure that the correct date is captured. I recommend in **section 2.1** that date alignment validation be added to ensure that dates are recorded correctly.

The list file was checked since part ten came into effect for any active ICPs that have no initial electrical connection date recorded or ICPS made active prior to part ten that have an initial electrical connection date populated. This found:

- 33 ICPs made active post part ten with no initial electrical connection date recorded (all occurred in 2013/14). The process to capture this information prior to the deployment of the NED NEWCONN ICP process relied on individuals to update the registry and this did not occur in all instances as is evident above. The process in place now has robust controls to ensure this information is populated.
- Six ICPs first made active prior to part ten with an initial electrical connection date recorded. These were examined and found that these are ICP numbers that have effectively been reused e.g. the previous property has been demolished or removed and a new property has been built at this connection point. The ICP can be reused but an initial electrical connection date should not be recorded in these instances. Going forward BUEL intend to decommission the ICP in these instances and manage the new connection via the NED NEWCONN process to make the process clean and clear.

The incorrect and missing initial electrical connection dates are recorded as non-compliance below.

Price Category Code

BUEL do not backdate price category code changes but will reflect the correct date of application in the network billing. There were three such instances identified during the audit period. The Authority expects the price code recorded on the registry to align with the network billing. This will create line charge billing discrepancies which the trader will need to investigate as the EIEP1 will contain different information than is being billed by BUEL to the trader. This is recorded as non-compliance below and in **section 2.1**.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.6</p> <p>With: Clause 7(1) Schedule 11.1</p> <p>From: 8/10/13</p> <p>To: 15/03/19</p>	<p>One ICP missing distributed generation details.</p> <p>Incorrect and missing initial electrical connection dates.</p> <p>Three price category code updates not recorded with the correct effective dates.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are rated as moderate as the checks in place identify most potential discrepancies but not all.</p> <p>The audit risk rating is low as the discrepancies identified have a minor impact on other participants.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>BEL now has a policy in place that ICPs will no longer be reused for new connections.</p> <p>The 33 ICPs identified with missing IECD's has been rectified. BEL IECD documentation has been located and the IECD's have been entered into the Registry.</p> <p>The 6 ICPs identified with inappropriate IECD's has been rectified (the IECD's have been removed).</p> <p>BEL has put a pricing policy in place where all billing corrections & PCC changes will now be back dated on the Registry. Billing corrections will be back dated by more than 3 days only in complex cases which cannot possibly be resolved in less than 3 days. BEL will accept the resulting non-compliance which we been informed is common place in the industry.</p>		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>On-going system improvements, process monitoring and staff training.</p> <p>A key step to improve BEL's performance is the introduction of KPI's for office & field staff for the completion of paper work, internal NED process updates & associated Registry updates on a timely basis to ensure compliance. Progress against these KPI's will be reported on a monthly basis to Senior Management and the Board.</p>		31/12/2019	

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 manager 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 registry information was reviewed. The event detail report and registry list for 01/12/17 to 30/11/18 were reviewed to determine compliance.

Audit commentary

All details are known at the time of application therefore BUEL do not use placeholder values when creating ICPs.

39 new connections were completed and made active during the period reviewed. I reviewed these completed new connections on the event detail report and confirmed that all had a pricing category recorded at the time of electrical connection.

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

The registry list as at 15/03/19 was reviewed to determine compliance. GPS coordinates were mapped for 95 ICPs and a sample of five ICPs were checked to determine their accuracy.

Audit commentary

BUEL record GPS co-ordinates for all new connections. The sample checked confirmed these are provided in the correct format.

Audit outcome

Compliant

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

Processes to manage the “Ready” status were reviewed.

The registry list as at 15/03/19 was reviewed to identify and check ICPs at the “Ready” status. A diverse sample of ten ICPs at “Ready” status were checked.

Audit commentary

BUEL moves ICPs to the “Ready” status, once they have received trader nomination acceptance. This has caused some backdating of events. This is recorded as non-compliance in **sections 3.2 to 3.7**. I recommend in **section 3.3** that blanket agreements are put in place wherever possible so that ICPs are created at the “Ready” status wherever possible.

The registry list showed three ICPs currently at “Ready” status, none have been at “Ready” status for more than two years. All had a single price category assigned and proposed trader identified.

Audit outcome

Compliant

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

The registry list as at 15/03/19 was reviewed to identify ICPs at distributor status.

Audit commentary

BUEL has no ICPs with the distributor status. There are no embedded networks connected or shared unmetered load present.

Audit outcome

Compliant

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 registry list as at 15/03/19 was reviewed to identify ICPs at “decommissioned” and “ready for decommissioning” status. A diverse sample of 10 ICPs “ready for decommissioning”, and 10 “decommissioned” ICPs were checked.

Audit commentary

BUEL receive decommissioning requests from traders and property owners directly. This process has not been examined in detail in previous audits. Historically the information to update the registry has not flowed to the relevant team to update the registry. BUEL are redesigning this process in consultation with the business to streamline and ensure that the information is provided to update the registry in a timely manner.

Examination of the list file found 77 ICPs are at “ready for decommissioning” status compared to 80 ICPs identified in the last audit. This is a relatively high number considering the size of the network. BUEL are working through the list of historic ICPs that have been at this status for some time to determine if they can be or have already been decommissioned.

A sample of the ten ICPs at the “Ready for decommissioning” status were checked and found that they have all been at this status for some years and these are being investigated as part of the overall clean-up of this area.

The ten decommissioned ICPs examined found that all were correctly recorded as decommissioned. Late updates to decommissioned status are recorded as non-compliance in **section 4.1**.

The lack of management of this area is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.11 With: Clause 20 Schedule 11.1 From: 26/10/05 To: 15/03/19	Decommissioning of ICPs not managed as required by this clause. Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as weak as the current process does not ensure that ICPs are decommissioned in a timely manner. The risk rating is low, as the volume of ICPs at this status is relatively small.		
Actions taken to resolve the issue		Completion date	Remedial action status
BEL has improved the NED DECOM ICP Event/Process so that ICPs which have recently entered the Registry 'Ready for Decommissioning' status are identified. Once a NED DECOM event is created the decommissioning process can be appropriately managed.		1/5/2019	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
BEL intends to resolve & clear the historic back log of ICPs in the 'Ready for Decommissioning' status in the coming 3-6 months.		1/12/2019	

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

No new pricing codes have been entered since 9/08/12.

Audit outcome

Compliant

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

No new loss factors have been created during the audit period.

Audit outcome

Compliant

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 in 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

No loss factors have been updated during the audit period.

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 give written notice to 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 give written notice to 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 give written notice to 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:

- give written notice to the reconciliation manager*
- give written notice to the Authority*
- give written notice to each affected reconciliation participant*
- comply with Schedule 11.2.*

Audit observation

The NSP table was examined.

Audit commentary

No NSPs have been created or decommissioned during the audit period.

Audit outcome

Compliant

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 one month before the NSP is electrically connected or the ICP is transferred.

Audit observation

The NSP table was reviewed.

Audit commentary

No NSPs have been created or decommissioned during the audit period.

Audit outcome

Compliant

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 give written notice to 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 was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period.

Audit outcome

Compliant

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 give notice to the reconciliation manager at least one 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 was reviewed.

Audit commentary

BUEL has not created any new embedded networks during the audit period.

Audit outcome

Compliant

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 give written notice to 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 was reviewed.

Audit commentary

No balancing area changes have occurred during the audit period for BUEL's NSPs.

Audit outcome

Compliant

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 give written notice to any trader trading at the ICP of the transfer at least one month before the transfer.

Audit observation

The NSP table was reviewed.

Audit commentary

No existing ICPs became NSPs during the audit period.

Audit outcome

Compliant

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 give written notice to the Authority in the prescribed form, no later than three business days before the transfer takes effect.

Audit observation

The NSP table was reviewed.

Audit commentary

BUEL has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

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 advise 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.

Audit commentary

BUEL is not responsible for any NSPs that are not connected to the grid.

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 supply point table was reviewed.

Audit commentary

BUEL have not connected any new NSPs during the audit period.

Audit outcome

Compliant

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 give written notice to:

- *the previous network owner (Clause 29(1)(a) of Schedule 11.1)*
- *the reconciliation manager (Clause 29(1)(b) of Schedule 11.1)*
- *the Authority (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 month's 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

The NSP supply point table was reviewed.

Audit commentary

BUEL have not initiated any changes of network owner.

Audit outcome

Compliant

6.11. 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 advise the reconciliation manager and the gaining MEP.

Audit observation

The NSP supply point table was reviewed.

Audit commentary

BUEL is not responsible for any embedded network gate meters.

Audit outcome

Compliant

6.12. 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 Authority 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

The NSP supply point table was reviewed.

Audit commentary

BUEL has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

6.13. 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

The NSP supply point table was reviewed.

Audit commentary

BUEL has not initiated the transfer of any ICPs during the audit period.

Audit outcome

Compliant

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 give written notice to the registry manager 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 give written notice to the registry manager 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

The registry list as at 15/03/19 was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

Review of a registry list confirmed there is no shared unmetered load connected to the BUEL network.

Audit outcome

Compliant

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 give written notice to all traders affected by that change or decommissioning as soon as practicable after the change or decommissioning.

Audit observation

The registry list as at 15/03/19 was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

Review of a registry list confirmed there is no shared unmetered load connected to the BUEL network.

Audit outcome

Compliant

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

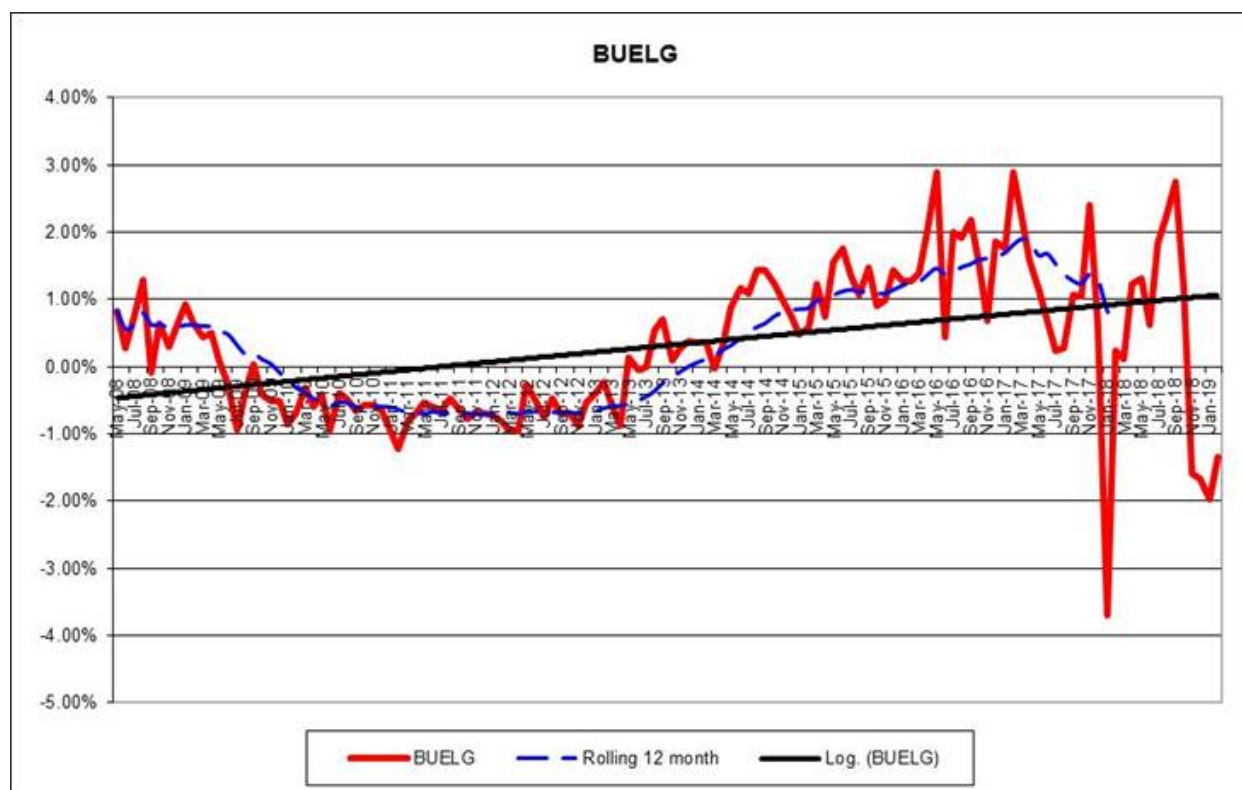
The “Guidelines on the calculation and the use of loss factors for reconciliation purposes” was published on 26 June 2018. I have assessed BUEL’s process and compliance against the guideline’s recommended thresholds.

BUEL provided their loss factor review process.

Audit commentary

BUEL provided their documented loss factor processes. These follow the “Guidelines on the calculation and the use of loss factors for reconciliation purposes v2.1”.

The Electricity Authority provided the reconciliation losses which indicate UFE is tracking at approximately 1% but is tracking upwards.



A number of factors have affected the losses on the BUEL network. Specifically:

- The KEL generation site had an incorrect loss factor allocated to it. This was corrected in April 2017 backdated to November 2017, but the generation site was out of operation post the Kaikoura earthquake and only recommenced operation in July 2017.
- The Sergeants Hill pump station (ICP 0001725930BUBFC) is now in constant use post the Kaikoura earthquake for the Buller district water supply as the previous gravity fed tunnels collapsed but the meter was only being read every five months and was being under estimated in the intervening months. This affected UFE for the R0-R3 revisions. An AMI meter was installed on 29/11/18. The Rolling Year R7 UFE is now below the +1% threshold, while the other RX UFE curves should drop below this threshold in the next 6 months.

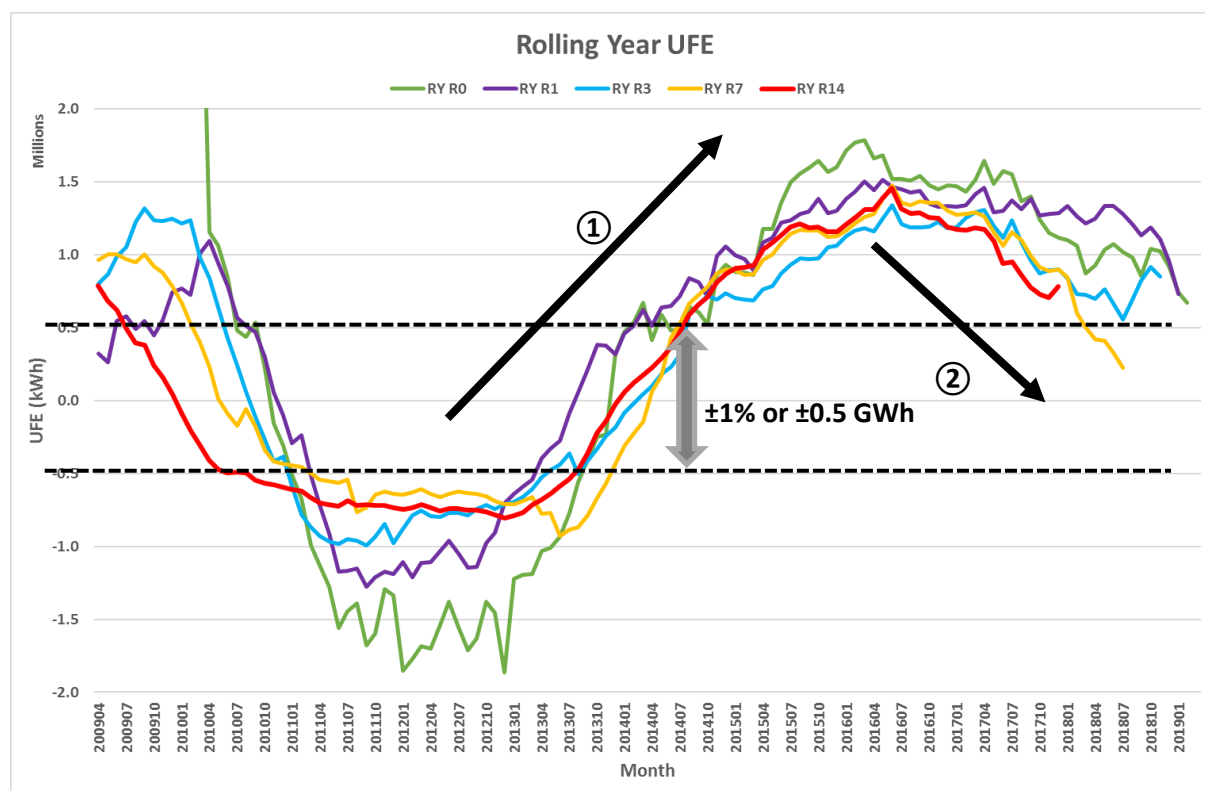


Figure 1 Rolling Year Unaccounted for Electricity (UFE)

BUEL will continue to review their losses to ensure they track within the $\pm 1\%$ threshold.

Audit outcome

Compliant

CONCLUSION

The audit found ten non-compliances and makes three recommendations.

This audit identified that overall code requirements are generally managed well. BUEL have already identified areas of improvement identified from this audit and are working to review and improve the processes to ensure that the information provided to the registry is complete and accurate and provided in a timely manner.

The use of the NED NEWCONN database has improved the visibility of new connections and the installation of distributed generation on BUEL's network. All updates for new connections and distributed generation are updated to the registry from the database. All other updates continue to be updated using the registry interface. If any further automation of registry updates is determined BUEL is aware that a material change audit is required to ensure that BUEL's ability to comply with their code requirements would not be affected by such a change

The next audit frequency table indicates that the next audit be due in six months. I have considered this result in conjunction with BUEL's comprehensive responses to the non-compliances raised and recommend that the next audit be in 12 months' time.

PARTICIPANT RESPONSE

BUEL have reviewed this report and their comments are recorded in the body of the report. No further comments were provided.