

ELECTRICITY INDUSTRY PARTICIPATION CODE
DISTRIBUTOR AUDIT REPORT



For

ELECTRICITY ASHBURTON LIMITED



Prepared by: Tara Gannon, Veritek Limited

Date audit commenced: 5 May 2020

Date audit report completed: 27 May 2020

Audit report due date: 28 May 2020

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EXECUTIVE SUMMARY

This Distributor audit was performed at the request of **Electricity Ashburton Limited (EA Networks)**, 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 audit was carried out using Microsoft Teams on 5 May 2020.

EA Networks' compliance has improved since the 2019 audit.

In most areas robust processes are in place, and prompt and accurate update of information is treated as a priority. Connection paperwork is now scanned and emailed, which has improved the timeliness of data receipt and processing. When data accuracy issues were identified during the audit they were promptly resolved. A small number of inaccuracies from previous audits have not been corrected, but I note that there is no impact on reconciliation because the incorrect data is more than 14 months old and the current values are correct.

NSP ASB0331 was decommissioned during the audit period, and all affected ICPs were moved to ASB0661 prior to the decommissioning. This change has simplified the NSP assignment process, and resolved NSP change data management issues identified in the 2019 audit.

"New" status is still applied for 57 non-traded ICPs where the load and meters are associated with another traded ICP. Significant progress has been made with investigating each non-traded ICP to determine whether they are redundant and can be decommissioned, or can be split from the traded ICP and become active. 267 non-traded ICPs were moved to other statuses during the audit period. Completion of the remaining site visits has been delayed by the COVID-19 restrictions, and the project will continue once the restrictions ease.

Unmetered load is still not recorded on the registry for any EA Networks ICPs. EA networks advised that they do not know the current capacity of the standard unmetered load on their network, and the code allows them not to update the registry under these circumstances. As a minimum it is expected that the distributor unmetered load details should record "DUML" for known DUML ICPs.

Distributed generation details are still added to the registry on approval of the application, rather than when installation of distributed generation is confirmed. EA Networks updates the capacity as necessary once the record of inspection (ROI) is received.

The audit found nine non-compliances and makes two recommendations. The audit risk rating is 15, a decrease from 21 last audit, and the next audit frequency table indicates that the next audit be due in 12 months. I recommend that the next audit be completed in 15 months by 28/08/2021, given that significant progress has been made with resolving non-compliances and this is expected to continue.

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)	Not all practicable steps are taken to ensure that the information provided is complete and accurate.	Moderate	Low	2	Identified
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Correction of data does not consistently occur as soon as practicable.	Moderate	Low	2	Identified
Timeliness of Provision of ICP Information to the registry manager	3.4	7(2) of Schedule 11.1	The registry was not updated prior to commencement of trading for 24 ICPs.	Moderate	Low	2	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 five ICPs.	Strong	Low	1	Identified
Connection of ICP that is not an NSP	3.6	11.17	ICP 0000033944EAFAB did not have a trader recorded on the registry on the date it was electrically connected.	Strong	Low	1	Identified
Management of "new" status	3.13	13 Schedule 11.1	57 ICPs are incorrectly recorded with "new" status when they are not new connections in progress.	Moderate	Low	2	Identified
Changes to registry information	4.1	8 Schedule 11.1	<p>53 late address events.</p> <p>Ten late network updates to distributed generation details.</p> <p>72 late network updates to fields other than distributed generation details.</p> <p>26 late pricing events.</p> <p>Four late updates to decommissioned status.</p> <p>One late NSP change.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Distributors to Provide ICP Information to the Registry man	4.6	7(1) Schedule 11.1	<p>Street number was not recorded in the correct field for the 17 ICPs, which were corrected during the audit.</p> <p>57 ICPs are incorrectly recorded with “new” status when they are not new connections in progress.</p> <p>Three ICPs had incorrect distributed generation capacities recorded, all were corrected during the audit. One ICP had an incorrect distributed generation event date recorded.</p> <p>Three active ICPs created prior to the audit period did not have an initial electrical connection date populated. The registry was updated to the correct date during the audit.</p> <p>Two active ICPs created prior to the audit period had incorrect initial electrical connection dates populated. Both were corrected during the audit.</p> <p>One ICP at ready status had an incorrect initial electrical connection date recorded, and was corrected during the audit.</p> <p>Unmetered load information is not recorded on the registry for six ICPs where EA Networks is aware DUML exists. As a minimum “DUML” is expected to be recorded in the distributor unmetered load details.</p> <p>Eight network events had incorrect event dates applied.</p>	Moderate	Low	2	Identified
Maintenance of price category codes	4.12	23 Schedule 11.1	Price category ISCM was created on the registry on 23/09/19, which was less than two months before the price category came into effect on 01/11/19.	Strong	Low	1	Identified
Future Risk Rating						15	

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	Recommendation	Description
Timeliness of Provision of ICP Information to the registry manager	3.4	Timeliness of updates to ready for ICP splits	To improve compliance for ICP splits, updates to initial registry information (excluding the initial electrical connection date) should occur as soon as the record values can be confirmed instead of waiting until the connection paperwork is received after initial electrical connection.
Management of “decommissioned” status	4.11	Follow up of ICPs at “ready for decommissioning” status without an application for decommissioning	Follow up ICPs which have been moved to “ready for decommissioning” status without an application being received from the trader.

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 code exemptions in place.

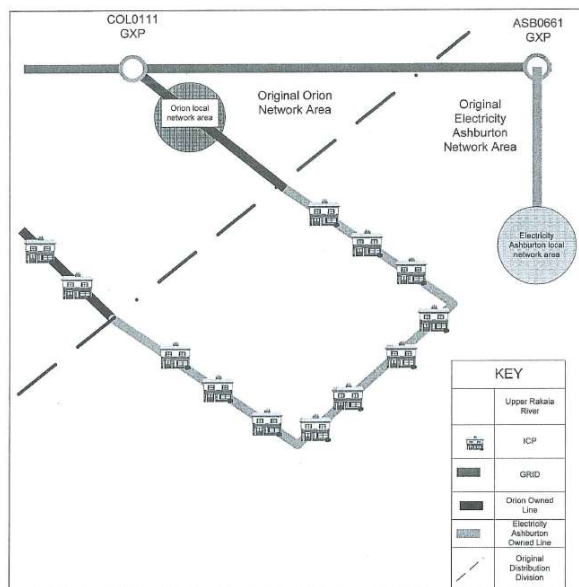
Audit commentary

Exemption number 163 exempts EA Networks from complying with clauses 10.3(f)(i) and 15.38 in relation to an embedded network connected to the Orion Network and expires on 31/05/2023.

- Clause 10.3(f)(i) relates to the provision of a metering installation at the point of connection for the embedded network.
- Clause 15.38 relates to certification as a reconciliation participant.

The exemption notes that “EASH has in place a materially accurate method to calculate consumption for settlement”.

The diagram below shows the embedded network and also shows two ICPs connected to the embedded network which are physically in the Orion area. These two ICPs are treated as being connected to COL0111.



EA Networks is working with the Department of Conservation to arrange installation of a gateway meter, and is currently awaiting resource consent. The consent for rebuilding the line across the Rakaia river only allows work to be completed in April and May, so it was decided to postpone the work until 2021 due to the COVID-19 lockdown.

I walked through the process to prepare the NSP volume submissions. The Coleridge parent NSP's profile is used, and daylight savings adjustments are applied where required. Initial submissions are

automatically estimated based on volumes for the past three years, and the current loss factor is applied. Revision submissions are based on retailers' EIEP submissions multiplied by the current loss factor.

EA Networks tracks UFE by comparing the submission and NSP level totals. I reviewed these results and found that by revision three to seven, UFE was normally at the expected level for the NSP.

The Electricity Authority confirmed that there was one alleged breach during the audit period relating to provision of volume information for URK0111. The submission was uploaded during a reconciliation manager disaster recovery test period. It was uploaded to the standard portal instead of the disaster recovery portal, and was rejected. The submission was promptly uploaded to the correct portal once the reconciliation manager contacted EA Networks. Corrective action has been taken to prevent recurrence of the issue, and the alleged breach was closed with no further action taken.

While submission is part of EA Network's processes for URK0111, the clause which was breached is not specifically covered in the distributor audit, and compliance is recorded in this section.

Breach no	Breach of	Description	Outcome
1910EASH1	Part 15 clause 15.4 (2)	Electricity Ashburton Ltd (EASH) has failed to submit data to the reconciliation manager by 16:00 on April 17th BD 13 in breach of Part 15.4 (2) of the Code. EASH submitted the data at 16:46 on the 17th April. EASH informed RM that they were going to be late due to some further quality assurance with the data.	Closed with no further action taken, there was no impact because the submission was 46 minutes late.

1.2. Structure of Organisation

Chief Executive Officer - CEO - Roger Sutton

SQE Manager - Gerard Smith
Health, Safety and Risk Lead - Stephen Small

GM - Customer & Commercial - Jeremy Adamson

Business Analyst - David Wilson
Commercial Analyst - Pat Ealam
IT Engineer - Team Leader - Limbanazo Kapindula
ICT Support Specialist - 11 Vacant
ICT Support Specialist - Tony Tubb
Customer Experience Manager - Jessica Harris
Customer Support Analyst - 10 Vacant

Network Manager - Brendon Quinn

Planning Engineer - Peter Lindsay
Engineering Services Manager - Shanel Singh
Electrical Engineer - Yee Mei Vong
Electrical Engineer - Jainam Sridharan
Electrical Engineer / Technician - Krishneel Prasad
Distribution Management System Engineer - Neil McKenzie
IP Network Engineer - Poini Manu
Engineering Cadet - Ruth Odlin
Senior CAD Draughtsman - Cath King
CAD/Design Draughtsman - Gordon Tillier
GIS Administrator - David Brown
Spatial Team Lead - Will Paddock
GIS Specialist - Eilery Clague
As-Built CAD/GIS Technician - Kesh Chapagain
Operations Manager - Myles Connors
Network Controller - David Bond
Network Controller - Gerard Hart
Network Controller - Pierre Nismand
Substation Maintenance Coordinator - Dewalt Venter
Vegetation Management Coordinator - Robert Wright
Underground Manager - Chris Cunneen
Design Technician - Chris Doherty
Design Technician - Amy Stewart
Fibre / GIS Draftsperson - Jo-Ann Crosbie
Overhead Manager - Wayne Watson
Lines Inspector - Frank Pethig
Lines Surveyor - Ken Saunders
Surveying Assistant - Len Deal
Store Manager - Philip Collins
Storeman - Barrie Brown
Storeman - Symon Restleaux

Chief Financial Officer - CFO - Mark Lester

HR Coordinator - Fiona Lambie
Management Accountant - Ronnie Campbell
Accounts Officer - Karlien Gillmore
Assistant Accountant - Charleen Swann
Receptionist - Abbie McAnally
Asset Information Manager - Phil Lator
Asset Information Officer - Aafia Pagalima
Data Coordinator - Maureen Russell
System Accountant - Sheryl Rielly
Application Analyst - Michelle Driscoll

1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

EA Networks personnel assisting in this audit were:

Name	Title
David Wilson	Business Analyst

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 EA Networks. An external inspector contractor was temporarily employed during the audit period.

1.5. Supplier list

All activities are completed directly by EA Networks.

1.6. Hardware and Software

The EA Networks Customer Information System is a bespoke system used by EA Networks to manage their data and processes.

The Access based Assets Database is used as a GIS and links to QuickMap. EA Networks is currently investigating replacing the GIS with Stream.

Access to systems is restricted using logins and passwords. Backups are carried out, and some backup copies are stored off site.

1.7. Breaches or Breach Allegations

The Electricity Authority confirmed that there was one alleged breach between 01/04/19 and 07/04/20. The breach relates to late provision of NSP information for the URK0111 embedded network, and is discussed further in **section 1.1**.

Breach no	Breach of	Description	Outcome
1910EASH1	Part 15 clause 15.4 (2)	Electricity Ashburton Ltd (EASH) has failed to submit data to the reconciliation manager by 16:00 on April 17th BD 13 in breach of Part 15.4 (2) of the Code. EASH submitted the data at 16:46 on the 17th April. EASH informed RM that they were going to be late due to some further quality assurance with the data.	Closed with no further action taken, there was no impact because the submission was 46 minutes late.

1.8. ICP and NSP Data

EA Networks owns and operates the electricity network in the Ashburton region.

EA Networks NSPs

The table below lists the relevant NSPs and their associated balancing areas, and the number of active ICPs connected. Embedded network URK0111 is discussed further in **section 1.1**.

NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date	Number of ICPs
ASB0661	ASHBURTON			ASHBURTEASHG	G	01-05-08	19,713
URK0111	UPPER RAKAIA	COL0111	ORON	UPPERAKEASHE	E	01-05-08	13

ASB0331 was decommissioned during the audit period:

NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	End date	Number of ICPs
ASB0331	ASHBURTON			ASHBURTEASHG	G	29-02-20	-

Networks embedded under EA Networks NSPs

One new embedded network was connected by TENC during the audit period, and is discussed in the relevant sections of this report.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
TENC	TAC0011	250 Tancred Street ASHBURTON	ASB0661	EASH	TAC0011TENCE	E	01-07-19

ICP status

EA Networks' ICPs are summarised by status in the table below:

Status	Number of ICPs (2020)	Number of ICPs (2019)	Number of ICPs (2018)
New (999,0)	60	326	362
Ready (0,0)	143	11	10
Active (2,0)	19,726	19,528	19,307
Distributor (888,0)	2	-	-
Inactive – new connection in progress (1,12)	38	25	34
Inactive – electrically disconnected vacant property (1,4)	254	255	239
Inactive – electrically disconnected remotely by AMI meter (1,7)	25	27	28
Inactive – electrically disconnected at pole fuse (1,8)	3	2	3
Inactive – electrically disconnected due to meter disconnected (1,9)	6	3	2
Inactive – electrically disconnected at meter box fuse (1,10)	2	2	1
Inactive – electrically disconnected at meter box switch (1,11)	-	-	0
Inactive – electrically disconnected ready for decommissioning (1,6)	18	21	31
Inactive – reconciled elsewhere (1,5)	-	-	0
Decommissioned (3)	2,503	2,228	2,246

1.9. Authorisation Received

A letter of authorisation was received.

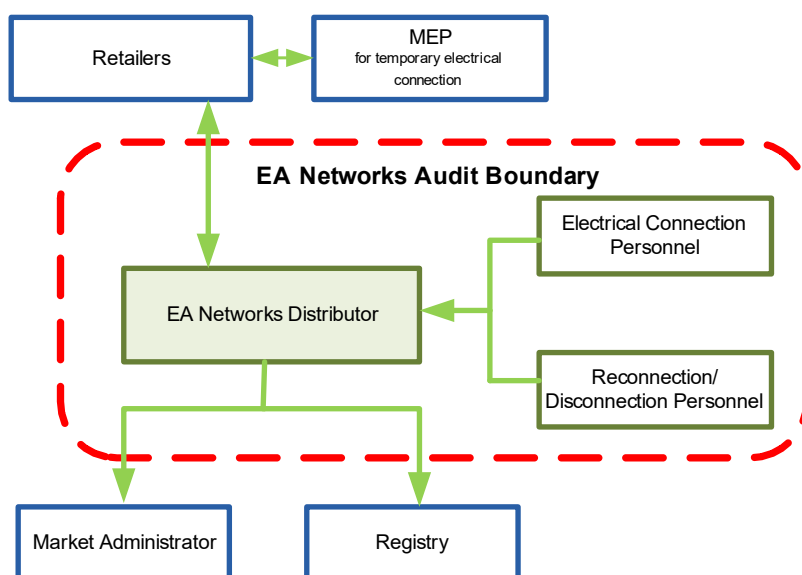
1.10. Scope of Audit

This Distributor audit was performed at the request of EA Networks, 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 EA Networks 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 is shown in the diagram below, with the EA Networks audit boundary shown for clarity.



1.11. Summary of previous audit

EA Networks provided a copy of their previous audit, conducted in May 2019 by Tara Gannon of Veritek Limited. The matters raised are detailed in the table below, and further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Requirement to provide complete and accurate information	2.1	11.2(1) and 10.6(1)	Not all practicable steps are taken to ensure that the information provided is complete and accurate.	Still existing
Requirement to correct errors	2.2	11.2(2) and 10.6(2)	Correction of data does not consistently occur as soon as practicable.	Still existing

Subject	Section	Clause	Non-compliance	Status
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 five ICPs.	Still existing
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 seven ICPs.	Still existing
Connection of ICP that is not an NSP	3.6	11.17	Registry not updated prior to commencement of trading for five ICPs.	Still existing
Management of “new” status	3.13	13 Schedule 11.1	326 ICPs incorrectly recorded as new.	Still existing
Changes to registry information	4.1	8 Schedule 11.1	Some price, network, and address changes were backdated.	Still existing
Notice of NSP for each ICP	4.2	7(1),(4) and (5) Schedule 11.1	At least four ICPs with an incorrect NSP recorded.	Cleared
Distributors to Provide ICP Information to the Registry manager	4.6	7(1) Schedule 11.1	<p>At least two ICPs with incorrect addresses.</p> <p>At least seven distributed generation records do not reflect what is physically installed.</p> <p>At least nine incorrect or missing initial electrical connection dates.</p> <p>Unmetered load type and capacity is not recorded on the registry for some ICPs where EA Networks is aware of the details.</p> <p>Some price, network (including NSP), address, and status changes had incorrect event dates applied.</p>	Still existing
Provision of information to registry after the trading of electricity at the ICP commences	4.7	7(3) Schedule 11.1	Six backdated price category codes for new connections.	Cleared

Subject	Section	Clause	Non-compliance	Status
Management of “decommissioned” status	4.11	20 Schedule 11.	Eight ICPs were not decommissioned from the requested date.	No new exceptions identified. Non-compliance now appears in section 2.1 , because not all practicable steps were taken to resolve the previous audit non-compliance.

Subject	Section	Recommendation	Description	Status
Changes to registry information	4.1	Increase the frequency of NSP change checks	NSP changes for 14 days or more must be notified to the registry by the 15 th day after the change. The frequency of NSP change checks should be increased to ensure compliance.	Cleared. ASB0331 has been decommissioned and all ICPs are connected to ASB0661 or embedded network URK0111. NSP changes are unlikely to occur.
Notice of NSP for each ICP	4.2	Update missing QuickMap information	Confirm locations and update QuickMap for the missing ICPs.	In progress. The number of ICPs missing from QuickMap has decreased.

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 17/03/20, event detail report for 01/04/19 to 17/03/20, and AC020 audit compliance report for 01/04/19 to 17/03/20 were examined to confirm compliance.

Audit commentary

Registry synchronisation

The EA Networks Customer Information System automatically sends updates to the registry when data that is also held in the registry changes.

- When a new connection is created, the registry update is held until all the required information has been populated, including the proposed trader. The update is sent the first evening where all the information is populated, as described in **section 3.2**.
- When a change is made, a ten minute timer starts. The updated record is sent to the registry ten minutes after the change is made if there is no further activity.

Reversals of events are processed manually on the registry, and then imported into the EA Networks Customer Information System.

The EA Networks Customer Information System retrieves information from the registry daily. On weekdays at 4.30am, an automated request to the registry to retrieve all events since the last request was sent. Once received, the EA Networks Customer Information System imports the event detail file, along with registry notifications, acknowledgements, and metering event files received since the last import. The process ensures that the system only imports files that it has not received before, and that events are processed in the correct order. A check is conducted to ensure that all files have been imported. Acknowledgement numbers are recorded against the event, and the event will automatically be resent if acknowledgement is not received.

Registry validation

A suite of registry validation reports are run daily, and any exceptions identified are reviewed and resolved:

- **price category** shows any ICPs which have an active status and a price category of POA,
- **missing initial energisation date** shows any ICPs which have an active status and no initial electrical connection date,
- **duplicate address** shows any ICPs which have the same address as another ICP,

- **ICPs at ready for decommissioning** shows ICPs which have moved to ready for decommissioning status, which are checked to determine whether an application for decommissioning or decommissioning paperwork has been received, so that the next step in the decommissioning process can be completed, and
- **Ready-new status ICPs >12m** shows ICPs which have been at new or ready status for more than 12 months.

Event dates

Event dates should reflect the date from which the attribute values for the event apply.

I walked through the process to assign event dates. Event dates are recorded against the event attributes for address, pricing, network, and status events in EA Networks' Customer Information System, and are sent to the registry with each update. The event dates automatically default to the date of the last event, and can manually be edited by the user. Initial electrical connection dates default to today's date and can be manually entered by the user.

Review of all 190 network events populating initial electrical connection dates on the event detail report for 01/04/19 to 17/03/20, and a sample of 57 address, network, status, and pricing events from the AC020 report found seven records (2.8%) with incorrect event dates. In all cases the errors occurred because the date was incorrectly set when the change was entered into the EA Networks Customer Information System.

ICP	Event type	Applied event date	Correct event date	Comment
0000034047EAE02	NETWORK	3/02/2020	28/02/2020	The previous (default) event date was applied.
0000033964EA2FE	NETWORK	24/09/2019	26/09/2019	The previous (default) event date was applied.
0000030578EA5A1	NETWORK	24/05/2019	15/04/2019	The previous (default) event date was applied.
0000015532EAB78	NETWORK	19/11/2019	26/11/2019	The previous (default) event date was applied.
0000033829EA604	NETWORK	11/03/2019	03/04/2019	The previous (default) event date was applied.
0000034036EA71A	NETWORK	14/01/2019	17/01/2020	The update day and previous year was applied.
0000034035EABDA	NETWORK	13/01/2019	27/01/2020	The update day and previous year was applied.
0000010069EAF81	NETWORK	29/04/18	29/04/14	The correct event date could not be applied without affecting other events.

Unresolved exceptions from the 2019 audit

Discrepancies identified during the 2019 audit were re-checked to determine whether they had been corrected.

Report section	2019 exception	Current status of 2019 exception
3.13	326 ICPs had "new" status recorded, but were not new connections in progress. The load is expected to be reconciled under another ICP with active status.	Still existing, but improved. 57 ICPs remain at "new" status but are not new connections in progress. Refer to section 3.13 for further information.

Report section	2019 exception	Current status of 2019 exception
3.14	ICP 0000015759EA05B has ready status recorded, but is inactive reconciled elsewhere.	Still existing. This ICP has been moved to “new” status so that it can be investigated and resolved along with the other ICPs at “new” status. Refer to sections 3.13 and 3.14 for further information.
4.1 & 4.6	Some incorrect event dates were applied for address, network, pricing, and status events.	Still existing.
4.2	At least ten ICPs had an incorrect NSP, or NSP effective date recorded.	Still existing. EA Networks do not intend to correct these event dates and NSPs because there is no impact on reconciliation. The current NSP value is correct, and all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.
4.6	Nine ICPs had incorrect or missing initial electrical connection dates.	Cleared. All exceptions were resolved by the time the 2020 audit was completed.
4.6	Seven ICPs did not have the nameplate capacity of the generator recorded on the registry, and a further two ICPs with generation installed did not have generation details recorded on the registry.	Cleared. All exceptions were resolved by the time the 2020 audit was completed. Where the kW values differed to what was expected at the time of the 2019 audit, I viewed updated paperwork and confirmed that the correct values were applied.
4.6	Unmetered load for DUML ICPs and private streetlights is not recorded on the registry.	Still existing. EA Networks does not intend to update the distributor unmetered load details. EA Networks have confirmed they only have visibility of Ashburton District Council and NZTA DUML streetlights which are added to Ashburton DC’s RAMM database, and the current unmetered load details are not known for any other ICPs. As a minimum it is expected that the distributor unmetered load details should record “DUML” for known DUML ICPs.
4.11	Eight decommissioned ICPs had incorrect event dates.	Still existing. EA Networks do not intend to correct these event dates, because there is no impact on reconciliation. The decommissioning date is after the date the ICPs were made inactive ready for decommissioning, and all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.1 With: 11.2(1) and 10.6(1) From: 01-Apr-19 To: 05-May-20	Not all practicable steps are taken to ensure that the information provided is complete and accurate. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as moderate overall, as most information is correct and processes are automated. Discrepancies exist in certain areas – application of event dates (which occurred due to data entry errors), the use of new status, generation capacity, and unmetered load. All of the areas listed above have a minor impact on settlement or participants, therefore the audit risk rating is low.	
Actions taken to resolve the issue		Completion date
Please see relevant section for action to resolve issue.		May 2020
Preventative actions taken to ensure no further issues will occur		Completion date
Please see relevant section for action to resolve issue.		May 2020
		Remedial action status
		Identified

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

EA Networks' data management processes were examined. The registry list file as at 17/03/20, event detail report for 01/04/19 to 17/03/20, and AC020 audit compliance report for 01/04/19 to 17/03/20 were examined to confirm compliance.

Audit commentary

EA Networks have processes in place to identify and resolve registry discrepancies as described in **section 2.1**. I saw evidence of incorrect information being corrected during the audit and most corrections were conducted as soon as practicable. The main exceptions were where the correction would have no impact on other participants or reconciliation and/or was delayed while investigation was carried out.

Incorrect application of the new status has been an ongoing issue for several audits, and is recorded as non-compliant below. Significant progress has been made during the audit period with a decrease from 326 to 57 ICPs at new status during the audit period. Completion of the remaining site visits has been delayed by the COVID-19 restrictions.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.2 With: Clause 11.2(2) and 10.6(2) From: 01-Apr-19 To: 05-May-20	Correction of data does not consistently occur as soon as practicable. Potential impact: Low Actual impact: Low Audit history: Once Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate, because significant progress has been made with resolving the outstanding issues during the audit period with 83% of the ICPs investigated and moved off new status in the past year. The issues relating to application of new status and ICPs not recorded on the GIS require site visits to confirm the correct data values. The incorrect statuses may have minor impact on settlement or participants therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
Please see 3.13 for action to resolve issue.		May 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Please see 3.13 for action to resolve issue.		May 2020	

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 ten new connection applications of the 234 created since 01/04/19 were checked from the point of application through to when the ICPS were created to confirm the process and controls. The sample included ICPS with:

- various meter categories (including category 4)
- various proposed traders
- various price categories; and
- with and without distributed generation.

None of the new connections had unmetered load connected.

Audit commentary

EA Networks creates ICPS as required by clause 1 of schedule 11.1. The sample checked confirmed that they were created compliantly.

The distributor is responsible for creating the ICP for the point of connection for an embedded network to its parent network. The new TENC embedded network TAC0011 became active on 01/07/19. Two new LE ICPS were created at the address prior to the network becoming active.

During the 2020 Ashburton DC distributed unmetered load audit I found three private lights are assigned to ICP 0000000000EAZZZ, which is used to track lights with unknown owners within Ashburton DC's database and is not settled. I checked to determine whether the unmetered load was attributed to an ICP:

Road Name	ICP Code	Lamp Model	Total Wattage	Comment
MCMURDO STREET	PRIVATE	MV 125W	135	An ICP has been created. The unmetered load is connected to ICP 0000025557EA8EB, which also has some metered load.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	These lights are located at the Tinwald Domain camping ground. Investigation has been completed and these lights could be metered through the camping ground's main switchboard. EA Networks intends to arrange this with the trader.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	

I confirmed that there were no other points of connection without an ICP or shared unmetered ICP recorded.

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. Ten new connection applications of the 234 ICPs created since 01/04/19 were checked to determine whether the ICPs had been created within three business days of a request by a trader. The sample included various traders.

Audit commentary

EA Networks receives most applications for new connections from customers or their agents. EA Networks manage the new connections within the EA Networks Customer Information System and attach scanned copies of the associated paperwork to the relevant ICP.

When a new connection is created, the registry update is held until all the required information has been populated, including the proposed trader. The proposed trader is populated when the trader has accepted responsibility for the ICP. The status, pricing, address, and network updates for new ICPs are sent at 6pm on the first evening where all the information is populated. Acknowledgement files imported the following morning confirm that the registry has been successfully updated.

ICPs are created at the "Ready" status, and new ICPs are electrically connected by EA Networks.

Nine of the ten new connections checked were requested by the customer's electrician, and one new connection for an ICP split was requested by an EA Networks inspector. None of the requests were received from the trader and this clause did not apply.

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

Ten new connection applications of the 234 ICPs created since 01/04/19 were checked from the point of application through to when the ICP was created, to confirm the process and controls worked in practice.

Audit commentary

Registry population is automated and the file includes all relevant fields. Registry response information is checked to ensure the information is successfully sent.

Information was provided as required by this clause for all ICPs created during the audit period, and information was correct for the sample of ICPs checked.

Audit outcome

Compliant

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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine the timeliness of the provision of ICP information for new connections.

Audit commentary

The distributor must provide to the registry the information listed in clause 7(1) of schedule 11.1 as soon as practicable, and before electricity is traded at the ICP.

234 new ICPs have been created since 01/04/19, and 190 of those were initially electrically connected during the audit period. 189 ICPs had "ready" status, a proposed trader, and address information recorded on the registry when they were initially electrically connected. ICP 0000033944EAFAB did not have "ready" status, a proposed trader or an address recorded on the initial electrical connection date. The new connection was a backdated ICP split, created at the request of the trader. The registry was updated once connection paperwork was received.

The AC020 report identified a further 23 ICPs created before the audit period with late updates to "ready" status during the audit period. 22 were ICP splits, and the registry was updated to ready when connection paperwork was received post initial electrical connection. The other was a brand new connection and was updated late due to a delay in receiving trader acceptance.

Description	Recommendation	Audited party comment	Remedial action
Timeliness of updates to ready for ICP splits	To improve compliance for ICP splits, updates to initial registry information (excluding the initial electrical connection date) should occur as soon as the record values can be confirmed instead of waiting until the connection paperwork is received after initial electrical connection.	The process has been changed to treat ICP splits in the same manner as any other change to an ICP to improve the timeliness of updating the Registry.	Identified

The late population of initial ICP information is recorded as non-compliance below. The timeliness of provision of initial electrical connection dates is discussed separately in **section 3.5**.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 7(2) of Schedule 11.1 From: 01-Apr-19 To: 04-Mar-20	The registry was not updated prior to commencement of trading for 24 ICPs. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate overall. The general controls over new connections are strong and have improved now that paperwork is scanned and emailed, instead of hard copies being provided. The controls over ICP splits are weaker, because typically EA Networks has waited for connection paperwork to be provided before updating the initial information on the registry. The audit risk rating is low. All the late data was updated within 13 business days of initial electrical connection and a small number of ICPs were affected.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have undertaken a review of EA Networks processes to identify how the non-compliance occurred.		May 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Process has been changed during the audit period to improve timeliness of updating the Registry for ICP splits.		May 2020	

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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine the timeliness of initial electrical connection dates. All late updates were checked.

Audit commentary

Connection paperwork is received for each new connection, and the registry is updated once this is received. There is daily reporting in place to identify active ICPs without an initial electrical connection date as part of the registry validation process.

190 ICPs created during the audit period were electrically connected, and two of those had late initial electrical connection date updates. One late update was caused by late receipt of connection paperwork, and the other for ICP 0000033944EAFAB was a backdated ICP split.

The AC020 report identified a further six ICPs created before the audit period with late initial population of the initial electrical connection date during the audit period.

- Two were not genuine late updates to initial electrical connection dates, because the network update did not change the initial electrical connection date.
- Three updates were delayed by late receipt of connection documentation.
- One late update was a correction to the initial electrical connection date.

Late update of the initial electrical connection dates on the registry is recorded as non-compliance below.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 7(2A) of Schedule 11.1 From: 03-May-19 To: 13-Feb-20	Late population of the initial electrical connection date for five ICPs. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong. Improvements were made during the audit period to scan and email paperwork instead of providing hard copies which has improved timeliness. The initial electrical connection date on the registry is used as a source of validation for active and certification dates. There is no impact on settlement but there is a minor impact on participants who use this field in their validation processes. The audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have undertaken a review to identify and understand how the Non-compliance occurred.		May 2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Changes made during the audit period and continued focus on improving processes involved, will improve timely updating of initial electrical connection date.	May 2020	

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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

The new connection process requires applications to be approved by traders. Connection applications are emailed to the proposed trader for approval. On receipt of a return email confirming approval, the proposed trader is updated in the EA Networks Customer Information System.

When new ICPs are created in the database the registry update is held until all information required has been provided, including the proposed trader.

Review of the registry list confirmed that a trader is currently recorded for all active ICPs. As discussed in **section 3.4**, ICP 0000033944EAFAB did not have a trader recorded on the registry on the date it was electrically connected. The new connection was a backdated ICP split, created at the request of the trader. The registry was updated once connection information was received from the EA Networks inspector. A recommendation is raised in **section 3.4** to improve the timeliness of registry updates for initial registry information for ICP splits.

A review of the registry list confirmed that there is no known shared unmetered load on EA Networks' network.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 11.17 From: 19-Aug-19 To: 02-Sep-19	ICP 0000033944EAFAB did not have a trader recorded on the registry on the date it was electrically connected. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong because one exception was identified, which was backdated at the trader's request. The audit risk rating is low because the proposed trader had requested the connection and accepted responsibility, and the registry was updated within ten business days of initial electrical connection.		
Actions taken to resolve the issue		Completion date	Remedial action status
Changes made during the audit period and continued focus on improving processes involved, will improve timely updating of initial electrical connection date.		May 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As non-compliance was because of a one-off request by a trader, and the process has been changed prevent this happening again.		May 2020	

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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

ICPs will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP. Trader acceptance is confirmed during the application process.

The registry list showed that all active ICPs had a trader recorded on the registry.

As discussed in **section 3.4**, ICP 0000033944EAFAB did not have a trader recorded on the registry on the date it was electrically connected. The new connection was a backdated ICP split, created at the request of the trader. The ICP split was backdated at the request of the trader, and I have taken this as confirmation that compliance with clause 10.31 is achieved.

Audit outcome

Compliant

3.8. Temporary 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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

EA Networks completes electrical connection for its ICPs. EA Networks' processes are robust in relation to this clause. An ICP will not be electrically connected without the agreement from the trader, who in turn has agreement with an MEP for the ICP.

Usually metering is certified on the day that the connection is performed. EA Networks' inspectors do not live in unless a meter is present if the ICP is to be metered.

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 connected by EA Networks 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

No new NSPs were connected by EA Networks during the audit period.

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:

xxxxxxxxxxxccc 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

ICP numbers are created in the EA Networks' Customer Information System. The process for the creation of ICPs was examined, and 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 17/03/20 was examined to confirm all active ICPs have a single loss category code.

Audit commentary

Each active ICP has a single loss category, which clearly identifies the relevant loss factor. Loss factors are determined based on new connection information.

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 registry list for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

EA Networks’ current process is to create all ICPs at “ready” status, and “new” status is not normally applied for new connections. As part of the application acceptance process, EA Networks ensures that the connection is ready to be completed.

“New” status is applied for (non-traded) ICPs where the load and meters are associated with another (traded) ICP in order to reduce the customer’s line charges and enable them to receive one invoice for the set of ICPs. This most often occurs for rural addresses where there may be separate ICPs for a house, shed, and pumps. The meters and usage for the traded and non-traded ICPs are recorded and billed against the active traded ICP. The non-traded ICPs remain at “new” status with no meters recorded against them.

Because these non-traded ICPs are not new connections in progress, the use of “new” status is technically incorrect. The non-traded ICPs are reconciled under the associated traded ICPs, so should

technically have a status of “inactive reconciled elsewhere”, which is a trader maintained status. EA Networks has elected to leave the affected non-traded ICPs at “new” status until they are investigated and properly resolved for several reasons:

1. A site visit needs to be completed to confirm the correct associated traded ICP and its trader, so that they can be approached to claim the ICP and move it to “inactive reconciled elsewhere”. Once the site visit is complete EA networks has sufficient information to determine the correct status and resolve the issue properly through an ICP split or decommissioning, and there will be no need to apply “inactive reconciled elsewhere” status.
2. Leaving the ICPs at “new” status ensures that the affected ICPs remain highly visible.

The registry list as at 17/03/20 recorded 60 ICPs at “new” status, and four were moved to “ready” or decommissioned after the report was run. ICP 0000015759EA05B was moved to “ready” status in error, and was moved back to “new” during the audit as discussed in **section 3.14**. This leaves 57 ICPs at “new” status when the audit was completed, a decrease from 326 ICPs during the 2019 audit. EA Networks intends to investigate and resolve the remaining 57 ICPs, but site visits have temporarily been delayed by the COVID-19 restrictions.

Site visits are conducted for each ICP at “new” status so that they can be moved to the correct status as explained below:

1. EA Networks identifies all traded and non-traded ICPs at the address, and each ICP’s meters and connection status.
2. If the non-traded ICP is physically separate from its associated traded ICP, and each ICP can be disconnected without affecting the other, the ICPs will be split.
EA Networks moves the non-traded ICP to “ready” status, to allow the trader to claim it and nominate the MEP. The MEP then removes the metering details for the non-traded ICP from the traded ICP, and adds them to the non-traded ICP. The connection is completed for the non-traded ICP, the initial electrical connection date is populated, and the trader can move the ICP to active status. ICPs remaining at “ready” status are expected to be monitored and followed up as described in **section 3.14**.
3. If the “non traded” ICP is not physically separate from its associated “traded” ICP, and each ICP cannot be disconnected without affecting the other, the non-traded ICP will move from “new” to “decommissioned” status. The load will continue to be reconciled under the traded ICP.

In some cases the MEP requests that the metering associated with the non-traded ICP (which is recorded against the traded ICP on the registry) is displaced for an ICP split, and new metering is installed on the non-traded ICP. This can extend the time it takes to move the ICPs to the correct status.

The event detail report recorded eight updates to “new” status during the audit period which were not later replaced by another status record on the same date. In all cases, the “new” status record was created when moving the ICP to “decommissioned set up in error” status.

Proposed traders are not recorded for any of the ICPs at “new” status, and traders are unlikely to be aware of their existence. There is a risk that if the associated traded ICP has an “inactive” or “decommissioned” status, but the non-traded ICP is “active”, the consumption may not be reconciled. The 2019 audit found 11 ICPs at “new” status which did not have an associated ICP at the same address by comparing addressing information for the ICPs. All were rechecked and the following exceptions remain:

New status ICP	Associated ICP status during 2019 audit	Current ICP status	Comment
0000011716EABA0	Decommissioned	999,0	Still existing, a site visit is required

New status ICP	Associated ICP status during 2019 audit	Current ICP status	Comment
0000018834EA5DF	Decommissioned	999,0	Still existing, a site visit is required
0000018854EAA2F	Decommissioned	999,0	Still existing, a site visit is required
0000017322EA493	Decommissioned	999,0	Still existing, a site visit is required
0000017871EA355	Decommissioned	999,0	Still existing, a site visit is required

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.13</p> <p>With: Clause 13</p> <p>Schedule 11.1</p> <p>From: 01-May-18</p> <p>To: 05-May-20</p>	<p>57 ICPs are incorrectly recorded with “new” status when they are not new connections in progress.</p> <p>Potential impact: Medium</p> <p>Actual impact: None</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are recorded as moderate. Significant improvement has been made during the audit period with 269 ICPs moved to other statuses.</p> <p>There is potentially a small impact on settlement for the five ICPs which do not appear to have an associated active ICP. The impact is expected to be low because it appears likely that the new ICPs may be disconnected or decommissioned along with the associated ICPs. The other 52 ICPs are expected to have their load settled under an active ICP.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
A further review was carried out of our process to address this Non-compliance issue.		May 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Resources have been allocated in the coming year to resolve this non-compliance.		May 2020	

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 “new” and “ready” status was reviewed. The registry list for 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

Monitoring process

The daily registry validation report identifies any ICPs which are at “new” or “ready” status. ICPs at these statuses for more than 12 months are automatically highlighted in yellow, and more than 24 months are highlighted in red. Any ICPs at “new” or “ready” status on the report are followed up with the trader every six months, and I viewed task scheduling to confirm that this is occurring.

The EA Networks Customer Information System includes a registry status and EA Networks connection status. I found that the daily registry validation report for Ready-new status ICPs >12m excluded any ICPs with a registry status of “new” or “ready” where the EA Networks connection status indicated that the ICP was “energised”. I confirmed that EA Networks updated the report logic to include all ICPs with a registry status of “new” or “ready” during the audit.

New ICPs

Examination of the registry list found:

Status	Number of ICPs at status as at 17/03/20	Number of ICPs at status for more than 12 months	Number of ICPs at status for more than 24 months
New (999,0)	60	60	60

All ICPs at “new” status are electrically connected, with the load and meters associated with another ICP to reduce the customer’s line charges and allow them to receive one invoice for the set of ICPs.

The ICPs at new status are not in the process of being connected, and do not normally have a proposed trader recorded. As discussed in **section 3.13**, these ICPs will be dealt with as a project and it is not expected that traders will be liaised with until the field visits are being coordinated.

Ready ICPs

Examination of the registry list found:

Status	Number of ICPs at status as at 17/03/20	Number of ICPs at status for more than 12 months	Number of ICPs at status for more than 24 months
Ready (0,0)	143	135	135

ICP 0000015759EA05B genuinely had “ready” status recorded for more than 24 months. This non-traded ICP is electrically connected with the load and meters associated with another active traded ICP, and the status was updated to “ready” in error when the connection to the site was undergrounded. EA Networks normally applies the “new” status for these non-traded ICPs, although the “inactive reconciled elsewhere” status is a better fit. EA Networks changed the status back to “new” during the audit, so that the ICP will be dealt with along with the other non-traded ICPs. The incorrect status is recorded as non-compliance in **sections 2.1 and 3.13**.

134 ICPs had backdated status updates from “new” to “ready” status during the audit period. All were non-traded ICPs which had undergone an ICP split to separate them from the associated traded ICP. The ICPs had a backdated status update to “ready” so that they can be claimed by the proposed trader, and subsequently have their metering records transferred and be moved to active status.

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

Audit observation

The EMI wholesale data set as at 05/03/20 and registry list as at 17/03/20 were reviewed to identify any generation stations with capacity of 10 MW or more, and determine compliance.

Audit commentary

ICP 0000026335EA378 has a capacity greater than 10 MW (28 MW) and it has a unique loss category (H01).

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) 1 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 subclause (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 5 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

EA Networks are aware of their obligation to ensure that the trader has provided approval before streetlights are connected. Approval as part of EA Networks' new connection process discussed in **section 3.2**.

New connections of streetlights circuits are recorded in RAMM in accordance with EA Networks' agreement with Ashburton District Council, and in turn the trader.

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 AC020 audit compliance report for 01/12/18 to 06/11/19 was reviewed to determine compliance.

A diverse sample of 57 backdated events were reviewed to determine the reasons for the late updates, including address, network, pricing, and status events.

The management of NSP changes was examined.

Audit commentary

When information that is held by the registry changes, the distributor responsible for that ICP must provide notice to the registry of that change within three business days of that change taking effect.

Compliance for initial population of address, network, pricing, and status information is assessed in **sections 3.4 and 3.5**. Timeliness has improved since the 2019 audit. Paperwork is scanned and emailed, and a hard copy is also provided.

Address events

The AC020 report recorded 53 ICPs where addresses were updated more than three business days after the event date. 92.01% of updates were on time, and the average business days between the event date and update date was 1.93.

I checked all 12 late updates made ten or more business days after the event date and found all were address corrections, and the content of the updates was correct.

Network events – distributed generation

The AC020 report recorded ten ICPs where distributed generation details were updated more than three business days after the event date. 68.42% of updates were on time, and the average business days between the event date and update date was 52.89.

I checked all ten late updates made ten or more business days after the event date and found they were delayed by late provision of generation information, or were corrections. The updates were made from the correct date, and the content was consistent with the supporting information except:

- 0000010069EAF81 which was updated effective from 29/04/18 instead of 29/04/14 to prevent other network records being reversed or replaced.

- 0000019602EA403 which was recorded with 3.4 kW instead of 3.24 kW as specified on the ROI. The capacity was updated during the audit.

Network events – other

The AC020 report recorded 72 ICPs where network fields other than distributed generation details were updated more than three business days after the event date. 84.28% of updates were on time, and the average business days between the event date and update date was 30.07.

32 of the late updates were made ten or more business days after the event date, and 19 were made 20 or more business days after the event date. I checked all 19 updates made 20 or more business days after the event date and found they were backdated corrections, created as part of the decommissioning process, delayed because confirmation of the record attributes was received late, or the event date was entered incorrectly.

The updates were made from the correct date, and the content was correct apart from five updates with incorrect event dates which are recorded as non-compliance in **section 2.1** and **4.6**.

Pricing events

The AC020 report recorded 57 ICPs where pricing details were updated more than three business days after the event date.

ICPs are initially created with a POA pricing code, and updated to an actual pricing code once network connection information is received. Clause 7(3) Schedule 11.1 requires actual pricing information to be updated within ten business days of initial electrical connection. 31 of the updates were not genuinely late, because they populated actual pricing information within 10 business days of the initial electrical connection date for newly connected ICPs.

26 of the updates were genuinely late. I checked the all 11 late updates made over ten business days after the event date and found they were caused by late provision of documentation confirming the price, backdated price changes at the trader's request, or late processing of an ICP split. The updates were made from the correct date, and the content was correct.

Status events

The management of decommissioned ICPs is discussed in **section 4.11**.

The AC020 report recorded four ICPs where the status was updated to decommissioned more than three business days after the event date, and more than three business days after the trader's update to "ready for decommissioning" status. 83.33% of updates were on time, and the average business days between the event date and update date was 2.22.

I checked all four late updates and found they were caused by late receipt of decommissioning documentation, or occurred in July 2019 around the time EA Networks' first implemented daily monitoring of ICPs which had moved to ready for decommissioning status. The updates were made from the correct date, and the content was correct.

NSP changes

ASB0331 was decommissioned on 29/02/20. ASB0331 was a backup NSP for ASB0661, and prior to the decommissioning all ICPs connected to ASB0331 were transferred to ASB0661. Review of the registry list for 01/04/19 to 17/03/20 confirmed that 6,205 ICPs changed between ASB0331 and ASB0661 by 31/05/20.

Review of the AC020 report for 01/04/19 to 17/03/20 found that five NSP changes were made more than eight business days after the event date. Four of the changes were not genuine. The previous network record had been reversed and then replaced with a new record containing the same NSP. There was one genuine late update, which was a backdated correction.

The previous audit recommended that EA Networks increase the frequency of their checks for NSP changes. Now that ASB0331 has been decommissioned, NSP changes are unlikely to occur. The two NSPs EA Networks is responsible for are connected to different networks. URK0111 is embedded under COL0111 on the Orion network, and it is not expected that any ICPs will transfer between URK0111 and ASB0661.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.1</p> <p>With: Clause 8 Schedule 11.1</p> <p>From: 01-Apr-19</p> <p>To: 05-May-20</p>	<p>53 late address events.</p> <p>Ten late network updates to distributed generation details.</p> <p>72 late network updates to fields other than distributed generation details.</p> <p>26 late pricing events.</p> <p>Four late updates to decommissioned status.</p> <p>One late NSP change.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple 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 because are sufficient to ensure that the registry is updated within three business days most of the time. Most of the late updates were corrections or were delayed while EA Networks confirmed that the updates were required.</p> <p>The risk rating is low because there may be a minor impact on other participants. Processing corrections improves compliance with the completeness and accuracy requirements.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
A further review was carried of EA Networks processes to address this Non-compliance issue		May 2020	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Changes made during the audit period with the addition attention being paid to timeliness of updating information.		May 2020	

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 for 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

ASB0331 decommissioning

ASB0331 was decommissioned on 29/02/20. ASB0331 was a backup NSP for ASB0661, and prior to the decommissioning all ICPs connected to ASB0331 were transferred to ASB0661. Review of the registry list for 01/04/19 to 17/03/20 confirmed that all 6,205 affected ICPs changed from ASB0331 to ASB0661 by 31/05/20.

The RM and Transpower were notified of the decommissioning as required by the code and EA Networks' transmission agreement with Transpower, and the RM provided notification of the decommissioning to all participants as required under clause 25 of schedule 11.1 of the code.

NSP assignment

The EA Networks Customer Information System automatically assigns ASB0661 now that ASB0031 has been decommissioned. If a new ICP is connected to embedded network URK0111, the NSP will be manually updated in the EA Networks Customer Information System.

The correct feeder is still recorded for the ICP using information in the G/Tech GIS and QuickMap. QuickMap (which links to the GIS) is used for mapping. The 2019 audit found 250 active ICPs which were not recorded in QuickMap and G/Tech, which decreased to 152 active ICPs in 2020. Based on this, it appears that QuickMap and G/Tech are being updated for new connections and older missing information is being confirmed and updated.

The impact of the missing ICPs on distributor audit compliance has decreased this audit period, because QuickMap and G/Tech information is not essential to determine the correct NSP now that ASB0331 has been decommissioned. However, it is required for other distributor processes outside of the scope of this audit, including outage notifications.

NSP accuracy

Currently, all active ICPs are connected to either ASB0661 or embedded network URK0111.

Review of the AC020 report did not identify any instances where 10% or fewer ICPs on a street have a different NSP to the other ICPs where the number of ICPs with a different NSP is less than three.

Review of the registry list as at 17/03/20 confirmed that ICPs assignment appeared reasonable for the location address for all active ICPs.

Exceptions from the 2019 audit

I rechecked exceptions identified during the 2019 audit, and found incorrect NSP change dates from ASB0331 to ASB0661 are still recorded on the registry for ten ICPs. This is recorded as non-compliance in **section 2.1**. EA Networks do not intend to correct these event dates and NSPs, because there is no impact on reconciliation. The current NSP value is correct, and all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.

Compliance is recorded in this section because no inaccurate NSP data was identified during the current audit period.

Audit outcome

Compliant

4.3. Customer queries about ICP (Clause 11.31)

Code reference

Clause 11.31

Code related audit information

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

Audit observation

The management of customer queries was examined.

Audit commentary

EA Networks seldom receives direct requests for ICP identifiers. ICP identifiers can be 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 AC020 report for 01/04/19 to 17/03/20 was reviewed to determine compliance.

Audit commentary

As discussed in **section 2.1**, reporting is in place to identify duplicate addresses. Addresses are checked to ensure that they are readily locatable at the time of application, and also by the inspector as part of the inspection process.

The AC020 report did not identify any duplicate addresses. 17 ICPs appeared on the AC020 report because both the street number and property name fields were blank, but in all cases the street number

(including a unit number if applicable) appeared in the unit number field. The unit and number were separated to the correct fields on the registry during the audit.

Compliance is recorded in this section because each ICP had a unique address which was readily locatable. A cleared non-compliance is recorded in **section 4.6**, because the street number was not recorded in the correct field for the 17 ICPs.

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. The Network Connection Form contains details of isolation (fusing) which confirms individual isolation points for each ICP.

As discussed in **section 3.13**, non-traded ICPs with “new” status are being individually checked to ensure that these electrical disconnection requirements are met.

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 1 NSP located within it, and the ICP will be supplied only from the NSP advised under Clause 7(1)(b) of Schedule 11.1, or the ICP is a point of connection between a network and an embedded network (Clause 7(1)(l) of Schedule 11.1)*
- *if unmetered load, other than distributed unmetered load, is associated with the ICP, the type and capacity in kW of unmetered load (Clause 7(1)(m) of Schedule 11.1)*
- *if shared unmetered load is associated with the ICP, a list of the ICP identifiers of the ICPs that are associated with the unmetered load (Clause 7(1)(n) of Schedule 11.1)*
- *if the ICP is capable of generating into the distributors network (Clause 7(1)(o) of Schedule 11.1):*
 - a) *the nameplate capacity of the generator; and*
 - b) *the fuel type*
- *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 17/03/20 and AC020 audit compliance report for 01/04/19 to 17/03/20 were reviewed to determine compliance. A typical sample of data discrepancies were checked, as described in the commentary.

Registry data validation processes are discussed in **section 2.1**.

Audit commentary

Review of the registry list as at 17/03/20 and AC020 audit compliance report for 01/04/19 to 17/03/20 identified some data discrepancies. Non-compliance is recorded where data remained incorrect at the time of the on-site audit or was not identified and corrected through EA Networks' processes.

Address

As described in **section 4.4**, 17 ICPs appeared on the AC020 report because both the street number and property name fields were blank, but in all cases the street number (including a unit number if applicable) appeared in the unit number field. The unit and number were separated to the correct fields on the registry during the audit.

Status

As discussed in **section 3.13**, 57 non-traded ICPs are incorrectly recorded with "new" status when they are not new connections in progress.

I rechecked the decommissioned status exceptions identified during the 2019 audit and found they have not been resolved. This is recorded as non-compliance in **section 2.1**. EA Networks do not intend to correct these event dates, because there is no impact on reconciliation. The decommissioning date is after the date the ICPs were made inactive ready for decommissioning, and all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.

The affected ICPs are:

ICP	Event date	Correct event date
0000010600EA826	30/07/2018	14/06/2018
0000011107EAB4E	09/10/2018	07/09/2018
0000019439EA728	27/11/2018	23/11/2018
0000020747EAF61	17/12/2018	23/11/2018
0000024854EA083	30/07/2018	25/06/2018
0000025046EAB06	04/02/2019	16/01/2019
0000031752EA1C2	20/08/2018	16/08/2018
0000023994EAA08	21/01/2019	13/11/2018

NSPs

ASB0331 was decommissioned on 29/02/20, and all active ICPs are connected to either ASB0331 or embedded network URK0111. No incorrectly assigned NSPs were identified.

I rechecked exceptions identified during the 2019 audit, and found incorrect NSP change dates from ASB0331 to ASB0661 are still recorded on the registry for ten ICPs. This is recorded as non-compliance in **section 2.1**. EA Networks do not intend to correct these event dates and NSPs, because there is no impact on reconciliation. The current NSP value is correct, and all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.

The affected ICPs are:

ICP	Event date	Correct event date
0000010102EA7A1	19/10/2018	13/12/2016
0000022327EAFD0	19/10/2018	20/03/2017
0000022325EAF55	19/10/2018	20/03/2017
0000022326EA395	19/10/2018	20/03/2017
0000010633EA31E	13/07/2018	05/07/18 ICP start date
0000014268EAF43	28/09/2018	15/09/18 ICP start date
0000016280EA4AD	22/02/2019	15/12/18 ICP start date
0000019719EA97E	15/02/2019	15/01/19 ICP start date
0000033626EAFD1	7/12/2018	09/10/18 ICP start date
0000022366EA130	7/12/2018	15/09/18 ICP start date

Installation type and generation details

EA Networks requires an application from customers who wish to connect distributed generation. The registry is normally updated on approval of the application for distributed generation, rather than when EA Networks receives confirmation that generation is installed. If the capacity on the record of inspection (ROI) differs from the application, the capacity is updated. The rationale for using the application information is that generation capacity may be installed in stages and an ROI may not be received, but the code requires the generation capacity to reflect *"nameplate capacity of the generator"*.

Analysis of the registry list confirmed there are 248 active ICPs with generation capacity recorded, and increase from 221 during the previous audit. All ICPs with generation capacity have a non-zero generation capacity, a fuel type, and an installation type of "B" or "G" recorded on the registry.

There were three ICPs with generation metering installed and a retailer profile indicating generation is present and no generation capacity recorded by EA Networks. I confirmed that the solar installations were decommissioned, and EA Networks' generation details were correct.

24 of the 248 active ICPs where EA Networks have generation recorded, but the retailer's profile was not consistent with generation. In ten cases the high risk database¹ confirmed that generation was installed, and EA Network's generation data was consistent with this. I checked the other 14 ICPs and confirmed that generation was installed. Ten of the updates were made based on application information and no ROI was received, and four updates were made based on application and ROI information.

¹ <https://www.energysafety.govt.nz/energysafety/app/highrisk-db/home>

During the audit, the following generation information inconsistencies were identified:

ICP	Recorded value	Expected value	Comment
0000020725EA014	3 kW	2.6 kW	Corrected during the audit, effective from the NSP change.
0000023207EAA21	4 kW	3 kW	Corrected during the audit.
000019602EA403	3.4 kW	3.24 kW	Corrected during the audit.
0000010069EAF81	29/04/18	29/04/14	Not corrected to prevent other records being reversed or replaced. This is also recorded as non-compliance in section 2.1 .

Exceptions from the 2019 audit

All exceptions were resolved by the time the 2020 audit was completed. Where the kW values differed to what was expected at the time of the 2019 audit, I viewed updated paperwork and confirmed that the correct values were applied.

Unmetered load

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

EA Networks does not have unmetered load details recorded for any of its ICPs. None of the ICPs created during the current audit period have unmetered load recorded by the trader. The five most recently created ICPs with unmetered load recorded by the trader were created in 2016-2017 and checked during the previous audit. EA networks advised that they did not know the capacity of the unmetered load, and the code allows them not to update the registry under these circumstances.

EA Networks confirmed that there are a small number of private unmetered streetlights on their network. These are typically associated with another ICP. EA Networks does not have unmetered load recorded on the registry for the affected ICPs, and confirmed that they do not have up to date knowledge of the unmetered load because this information is held by traders.

EA Networks is aware that there is DUMML load connected to the following ICPs. As a minimum it is expected that the distributor unmetered load details should record “DUMML” for known DUMML ICPs. EA Networks does not intend to update the distributor unmetered load details for these ICPs.

ICP Number	Description
0000010559EAD7C	Ashburton District Council – Streetlighting
0000025163EA218	Ashburton District Council – Streetlighting
0000025164EAFD2	Open Spaces - Parks and Amenities
0000030218EA553	Methven
0000033381EAF01	NZTA Methven

ICP Number	Description
0000033382EA3C1	NZTA not Methven

During the 2020 Ashburton DC distributed unmetered load audit I found three private lights are assigned to ICP 0000000000EAZZZ in the DUML database, which is used to track lights with unknown owners and is not settled.

Road Name	ICP Code	Lamp Model	Total Wattage	Comment
MCMURDO STREET	PRIVATE	MV 125W	135	The unmetered load is connected to ICP 0000025557EA8EB, which also has some metered load. There are two 125W MV lights on McMurdo Street in the Tinwald Tavern carpark. Underground work is being completed at the site and as part of this process the unmetered load will become metered. EA networks is working with the affected trader, who intends to update their unmetered load details.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	These lights are located at the Tinwald Domain camping ground. Investigation has been completed and these lights could be metered through the camping ground's main switchboard. EA Networks intends to arrange this with the trader.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	

Initial Electrical Connection date

Initial electrical connection dates are recorded from connection paperwork received from EA Networks inspectors, once connection is complete. All 190 ICPs created and electrically connected during the audit period had an initial electrical connection date recorded.

ICPs created before or during the audit period and electrically connected during the audit period

Examination of the AC020 report found:

- three ICPs where the initial electrical connection date did not match the meter certification date and the trader's earliest active date, in all cases EA Networks' initial electrical connection date was consistent with the connection paperwork, and
- 28 ICPs where the initial electrical connection date matched the trader's earliest active date but did not match the meter certification date, in all cases EA Networks' initial electrical connection date was correct.

ICPs created and initially electrically connected prior to the audit period

Examination of ICPs created and initially electrically connected prior to the audit period on the AC020 report found:

- three active ICPs which did not have an initial electrical connection date populated, all the ICPs were electrically connected, and the registry was updated to the correct date during the audit' and
- nine active ICPs had a potentially inaccurate initial electrical connection date populated, seven ICPs had the correct initial electrical connection date recorded and two did not, both the exceptions were corrected during the audit.

ICPs at “inactive new connection in progress” or “ready” status with initial electrical connection dates populated

Examination of the AC020 report found:

- three ICPs at “inactive new connection in progress” status with initial electrical connection dates populated - I confirmed that all the ICPs were electrically connected, and the initial electrical connection dates were correctly populated, and one ICP has since been updated to active status, and
- 134 ICPs at “ready” status with initial electrical connection dates populated. I checked an extreme case sample of the 15 ICPs with the oldest initial electrical connection dates and confirmed that all the ICPs were electrically connected. 14 of the 15 initial electrical connection dates were correctly populated, and the initial electrical connection date for the other ICP was corrected during the audit.

Non-compliance is recorded in **section 3.5** for the late population of initial electrical connection dates.

Exceptions from the 2019 audit

Initial electrical connection date exceptions identified in the 2019 audit were rechecked, and had been resolved by the time the audit was completed.

Event dates

Event dates should reflect the date from which the attribute values for the event apply.

I walked through the process to assign event dates. Event dates are recorded against the event attributes for address, pricing, network, and status events in EA Networks’ Customer Information System, and are sent to the registry with each update. The event dates automatically default to the date of the last event, and can manually be edited by the user. Initial electrical connection dates default to today’s date and can be manually entered by the user.

Review of all 190 network events populating initial electrical connection dates on the event detail report for 01/04/19 to 17/03/20, and a sample of 57 address, network, status, and pricing events from the AC020 report found eight records (3.2%) with incorrect event dates. In all cases the errors occurred because the date was incorrectly set when the change was entered into the EA Networks Customer Information System.

ICP	Event type	Applied event date	Correct event date	Comment
0000034047EAE02	NETWORK	3/02/2020	28/02/2020	The previous (default) event date was applied.
0000033964EA2FE	NETWORK	24/09/2019	26/09/2019	The previous (default) event date was applied.
0000030578EA5A1	NETWORK	24/05/2019	15/04/2019	The previous (default) event date was applied.
0000015532EAB78	NETWORK	19/11/2019	26/11/2019	The previous (default) event date was applied.
0000033829EA604	NETWORK	11/03/2019	03/04/2019	The previous (default) event date was applied.
0000034036EA71A	NETWORK	14/01/2019	17/01/2020	The update day and previous year was applied.
0000034035EABDA	NETWORK	13/01/2019	27/01/2020	The update day and previous year was applied.
0000010069EAF81	NETWORK	29/04/18	29/04/14	The correct event date could not be applied without affecting other events.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.6</p> <p>With: Clause 7(1)(m) & (p) Schedule 11.1</p> <p>From: 01-Apr-19</p> <p>To: 05-May-20</p>	<p>Street number was not recorded in the correct field for the 17 ICPs, which were corrected during the audit.</p> <p>57 ICPs are incorrectly recorded with “new” status when they are not new connections in progress.</p> <p>Three ICPs had incorrect distributed generation capacities recorded, all were corrected during the audit. One ICP had an incorrect distributed generation event date recorded.</p> <p>Three active ICPs created prior to the audit period did not have an initial electrical connection date populated. The registry was updated to the correct date during the audit.</p> <p>Two active ICPs created prior to the audit period had incorrect initial electrical connection dates populated. Both were corrected during the audit.</p> <p>One ICP at ready status had an incorrect initial electrical connection date recorded, and was corrected during the audit.</p> <p>Unmetered load information is not recorded on the registry for six ICPs where EA Networks is aware DUML exists. As a minimum “DUML” is expected to be recorded in the distributor unmetered load details.</p> <p>Eight network events had incorrect event dates applied.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate because data validation processes have improved during the audit period, with the addition of monitoring of new and ready and ready for decommissioning ICPs, and update of generation capacities where necessary on receipt of inspection information. Exceptions created during the audit period were resolved during the audit, and a small number of exceptions relating to the previous audit period remain but have no impact on reconciliation. Significant progress has been made with moving the non-traded ICPs to the correct statuses.</p> <p>The audit risk rating is recorded as low because the overall number of variances is low and the impact is negligible.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
A further review was carried of EA Networks processes to address this Non-compliance issue		May 2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Changes made during the audit period with the addition more attention being paid to accuracy of updating information.	May 2020	

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 registry list for 17/03/20 and event detail report for 01/04/19 to 17/03/20 were reviewed to determine compliance.

Audit commentary

ICPs are initially created with a POA pricing code, and updated to an actual pricing code once network connection information is received.

The analysis of the event detail report found that 190 new ICPs were electrically connected during the audit period. All had their pricing details updated to the actual price category, chargeable capacity, and distributor installation details within ten business days of initial electrical connection.

Daily registry validation reporting is in place to identify active ICPs with a POA pricing code, which are checked and updated.

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 17/03/20 was reviewed to determine compliance.

Audit commentary

EA Networks does not use GPS coordinates.

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

The management of ICPs in relation to the use of the “ready” status was examined. The registry list for 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to determine compliance.

Audit commentary

EA Networks’ current process is to create all ICPs at the “ready” status.

143 ICPs currently at “ready” status, and 135 of these ICPs have been at ready status for over two years. 134 ICPs had backdated status updates from “new” to “ready” status during the audit period. All were non-traded ICPs which had undergone an ICP split to separate them from the associated traded ICP. The ICPs had a backdated status update to “ready” so that they can be claimed by the proposed trader, and subsequently have their metering records transferred and be moved to active status.

All ICPs at “ready” status had a single price category assigned and proposed trader identified.

Monitoring of ICPs at “ready” status is discussed further in **section 3.14**.

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

Processes to manage the “distributor” status were reviewed.

The registry list as at 17/03/20 and event detail report for 01/04/19 to 17/03/20 were reviewed to identify ICPs at the “distributor” status and check compliance.

Audit commentary

There are two ICPs with “distributor” status, which were created during the audit period as points of connection between embedded network TAC0011 and the parent network EASH.

No shared unmetered load is recorded on the network. Shared unmetered load is discussed further in **section 7.1**.

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 for 17/03/20, event detail report for 01/04/19 to 17/03/20 and AC020 report for 01/04/19 to 17/03/20 were examined to identify ICPs at the “decommissioned” or “ready for decommissioning” status.

A diverse sample of ten “decommissioned” ICPs was examined. I also examined all 18 ICPs at “ready for decommissioning” status.

Audit commentary

EA Networks moves ICPs to “decommissioned” status once an application for decommissioning has been received from the trader, the registry has been updated to “ready for decommissioning status”, the decommissioning process is complete, and paperwork is received.

ICPs which are at “ready for decommissioning” status are monitored on the daily registry validation report described in **section 2.1**. The ICPs are checked to determine whether an application for decommissioning or decommissioning paperwork has been received, so that the next step in the decommissioning process can be completed. ICPs which have been moved to “ready for decommissioning” status without an application for decommissioning being received are not currently followed up with the trader. EA Networks intends to implement a process to follow up missing

applications for decommissioning as a priority once they have resolved their issues with non-traded ICPs at “new” status.

Description	Recommendation	Audited party comment	Remedial action
Follow up of ICPs at “ready for decommissioning” status without an application for decommissioning	Follow up ICPs which have been moved to “ready for decommissioning” status without an application being received from the trader.	EA Networks intends to combine follow ups for these ICPs with the “new” status ICPs (ICP splits) thus site visits can occur when in area, resulting more immediate resolution to this issue.	Identified

The EA Networks Customer Information System includes a registry status and EA Networks connection status. I found that the daily registry validation report for ICPs at ready for decommissioning excluded any ICPs with a registry status of “ready for decommissioning” where the EA Networks connection status indicated that the ICP was “energised”. I confirmed that EA updated the report logic to include all ICPs with a registry status of “ready for decommissioning”.

Examination of the list file found 18 ICPs are at “ready for decommissioning” status. There were no ICPs at “ready for decommissioning” where decommissioning should have occurred on the registry. Either no application for decommissioning had been received, a decommissioning event had been reversed at the trader’s request, or further investigation confirmed that the ICP was active and the status has since been updated.

The 10 “decommissioned” ICPs examined all had the correct status, status reason, and event date applied.

Unresolved exceptions from the 2019 audit

The 2019 audit found eight decommissioned ICPs had incorrect event dates applied. I rechecked the exceptions and confirmed that they were still existing. EA Networks do not intend to correct these dates, as there is no impact on reconciliation because:

1. the decommissioning date is after the date the ICPs were made inactive ready for decommissioning, and
2. all of the correct event dates occurred more than 14 months ago and no further wash ups will occur.

Non-compliance is recorded in **section 2.1**, because not all practicable steps were taken to correct the inaccurate data. Compliance is recorded in this section because no inaccurate decommissioning data was identified during the current audit period.

Audit outcome

Compliant

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 and the registry list for 01/04/19 to 17/03/20 was examined.

Audit commentary

New price category code ISCM was created during the audit period. The code came into effect on 01/11/19, which was less than two months after to being entered into the price category table on 23/09/19. The entry of the code delayed by late development of the new pricing option.

The ISCM price category code applied to four ICPs during the audit period, and the earliest start date was 01/11/19.

ICP	Event Start Date	Event End Date	Comment
0000021019EAA50	1/11/2019	6/01/2020	Moved to ISCH from 07/01/20
0000026542EADE9	1/11/2019	21/11/2019	Moved to ISCH from 22/11/19
0000027371EA177	1/11/2019	16/12/2019	Moved to ISCH from 17/12/19
0000030248EAD5B	1/11/2019		Remains on ISCM

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.12</p> <p>With: Clause 23 Schedule 11.1</p> <p>From: 31-Aug-19</p> <p>To: 23-Sep-19</p>	<p>Price category ISCM was created on the registry on 23/09/19, which was less than two months before the price category came into effect on 01/11/19.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as strong overall. The update was delayed by late development of the pricing code. I considered the most recent new pricing code created prior to the audit period (ISCF effective 01/09/17) and found that the price category code was updated on time.</p> <p>The audit risk is rated as low because a small number of ICPs were affected, and the price category was loaded on the registry 39 days before it came into effect. This was the first new price category created since 2017.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Issues has been identified		May 2020	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
More attention will be paid in the timeliness of creation of new Price Categories	May 2020	

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 loss category codes were added or ended during the audit period. Changes to the loss factors for the existing codes are discussed in **section 5.2**.

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

Loss factor values for loss factor codes H01, H02, L01, M01, M02, M03, M04 and M05 were updated effective from 01/04/20 on 30/01/20. The updates were made more than two calendar months before the new values came into effect.

Only one factor is applied per calendar month. The loss factor review process is discussed in **section 8.1**.

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

EA Networks did not create or decommission any NSPs which were an interconnection point between two local networks, or between an embedded network and another network.

New embedded network TAC0011 was created by TENC.

Dist	NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	Start date
TENC	TAC0011	250 Tancred Street ASHBURTON	ASB0331	EASH	TAC0011TENCE	E	01-07-19

ASB0331 was decommissioned by EA Networks, but was not an interconnection point between two local networks, or an embedded network and another network.

NSP POC	Description	Parent POC	Parent Network	Balancing Area	Network type	End date	Number of ICPS
ASB0331	ASHBURTON			ASHBURTEASHG	G	29-02-20	-

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 examined.

Audit commentary

No new NSPs were created by EA Networks 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 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

EA Networks have 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.

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

EA Networks 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 table and code exemption information was reviewed.

Audit commentary

EA Networks does not have responsibility for any NSP metering.

As discussed in **section 1.1**, exemption number 163 exempts EA Networks from provision of a metering installation at the point of connection for the URK0111 (Upper Rakia) embedded network.

EA Networks is working with the Department of Conservation to arrange installation of a gateway meter, and is currently awaiting resource consent. Once resource consent is received, the meter installation will be scheduled when the river is low enough to safely complete the river crossings.

Audit outcome

Compliant

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

Code reference

Clause 10.25(2)

Code related audit information

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

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

Audit observation

The NSP table was reviewed.

Audit commentary

EA Networks did not create 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 months 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 table was reviewed.

Audit commentary

EA Networks 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 table and code exemption information was reviewed.

Audit commentary

EA Networks does not have responsibility for any NSP metering.

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 table was reviewed.

Audit commentary

EA Networks 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 table was reviewed.

Audit commentary

EA Networks 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 for 17/03/20 was reviewed to identify any ICPs with shared unmetered load connected. Findings of streetlight audits on the network were considered.

Audit commentary

EA Networks has not recorded any shared unmetered load.

During the 2020 Ashburton DC distributed unmetered load audit I found three private lights are assigned to ICP 0000000000EAZZZ, which is used to track lights with unknown owners and is not settled.

Road Name	ICP Code	Lamp Model	Total Wattage	Comment
MCMURDO STREET	PRIVATE	MV 125W	135	The unmetered load is connected to ICP 0000025557EA8EB, which also has some metered load. There are two 125W MV lights on McMurdo Street in the Tinwald Tavern carpark. Underground work is being completed at the site and as part of this process the unmetered load will become metered. EA networks is working with the affected trader, who intends to update their unmetered load details.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	These lights are located at the Tinwald Domain camping ground. Investigation has been completed and these lights could be metered through the camping ground's main switchboard. EA Networks intends to arrange this with the trader.
TINWALD DOMAIN ROAD3	PRIVATE	SON 100W	114	

I confirmed that there were no other points of connection without an ICP or shared unmetered ICP recorded.

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 for 17/03/20 was reviewed to identify any ICPs with shared unmetered load connected.

Audit commentary

EA Networks does not have any shared unmetered load recorded.

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 EA Networks’ process and compliance against the guideline’s recommended thresholds.

I reviewed correspondence and documentation relating to the loss factor review.

Audit commentary

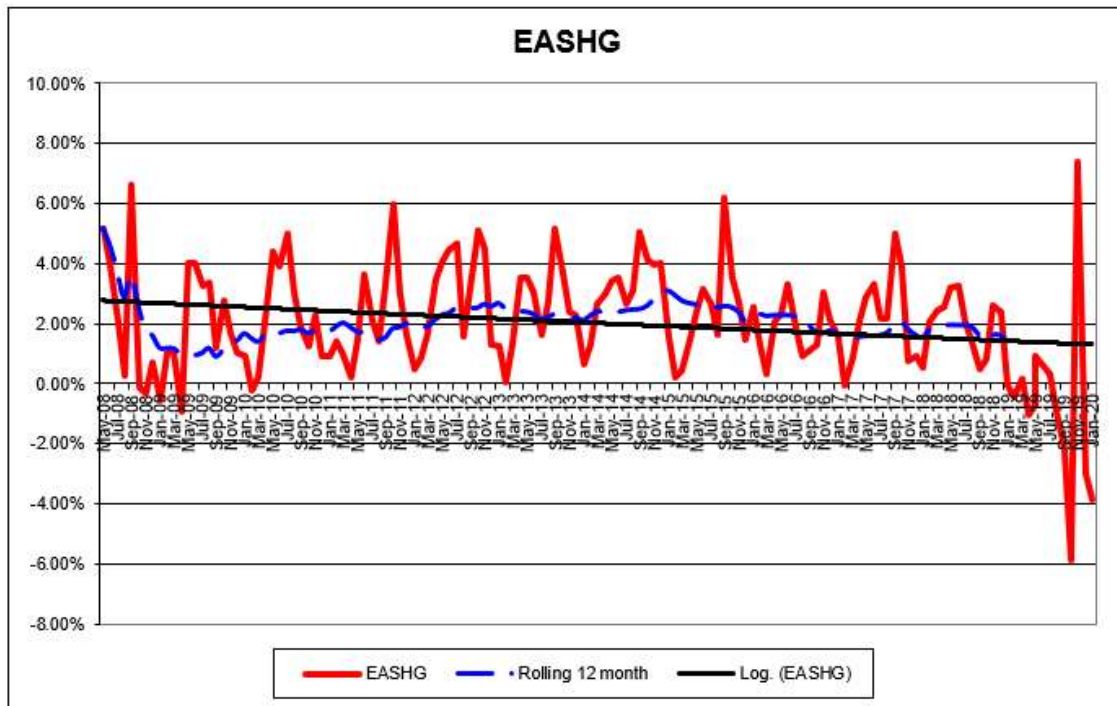
EA Networks monitors reconciliation losses for each financial year. Losses are tracked monthly by reviewing reconciliation results provided by the reconciliation manager.

Loss factor reviews are completed annually, and follow the EA’s guidelines.

A loss factor review was completed in January 2020, and the previous review was completed in January 2019. This review consolidated the summer and winter loss factors into a single value, after EA Networks found losses were higher than anticipated over the summer using seasonal factors calculated the previous year. These higher than anticipated losses occurred partially due to the way in which they were calculated, and partially due to UFE being created by network equipment when electricity is not being consumed.

Following the review updated loss factors were published and recorded on the registry effective from 01/04/20. I confirmed that the updated loss factors recorded on the registry were consistent with the revised loss factor calculations.

The Electricity Authority provided the reconciliation losses which indicate UFE is not tracking within the +/- 1% threshold indicated in the guideline. By the 14-month wash up, UFE is around 1.5%. The highly variable technical losses are largely due to the unpredictable nature of some loads connected to the network (such as irrigation), which impacts on unaccounted for electricity (UFE).



The unaccounted for electricity (UFE) is allocated to retailers so there is no adverse impact on reconciliation, however Retailers will make pricing decisions based on published loss factors and if the factors are not accurate this may have an impact. New Retailers in particular may rely more on published loss factors because they will not have their own history.

Audit outcome

Compliant

CONCLUSION

EA Networks' compliance has improved since the 2019 audit.

In most areas robust processes are in place, and prompt and accurate update of information is treated as a priority. Connection paperwork is now scanned and emailed, which has improved the timeliness of data receipt and processing. When data accuracy issues were identified during the audit they were promptly resolved. A small number of inaccuracies from previous audits have not been corrected, but I note that there is no impact on reconciliation because the incorrect data is more than 14 months old and the current values are correct.

NSP ASB0331 was decommissioned during the audit period, and all affected ICPs were moved to ASB0661 prior to the decommissioning. This change has simplified the NSP assignment process, and resolved NSP change data management issues identified in the 2019 audit.

"New" status is still applied for 57 non-traded ICPs where the load and meters are associated with another traded ICP. Significant progress has been made with investigating each non-traded ICP to determine whether they are redundant and can be decommissioned, or can be split from the traded ICP and become active. 267 non-traded ICPs were moved to other statuses during the audit period. Completion of the remaining site visits has been delayed by the COVID-19 restrictions, and the project will continue once the restrictions ease.

Unmetered load is still not recorded on the registry for any EA Networks ICPs. EA networks advised that they do not know the current capacity of the standard unmetered load on their network, and the code allows them not to update the registry under these circumstances. As a minimum it is expected that the distributor unmetered load details should record "DUML" for known DUML ICPs.

Distributed generation details are still added to the registry on approval of the application, rather than when installation of distributed generation is confirmed. EA Networks updates the capacity as necessary once the record of inspection (ROI) is received.

The audit found nine non-compliances and makes two recommendations. The audit risk rating is 15, a decrease from 21 last audit, and the next audit frequency table indicates that the next audit be due in 12 months. I recommend that the next audit be completed in 15 months by 28/08/2021, given that significant progress has been made with resolving non-compliances and this is expected to continue.

PARTICIPANT RESPONSE

EA Networks has improved Information Systems during the Audit Period resulting in a better Audit outcome.