

# Electricity Industry Participation Code Reconciliation Participant Audit Report

For

**Contact Energy Limited**



**Prepared by Steve Woods – Veritek Limited**

Date of Audit: 13/06/17 to 15/06/17

Date Audit Report Complete: 30/08/17

Audit Report Due Date: 30/08/17

## Executive Summary

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Contact Energy Limited (Contact)**, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1.

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.1.

The audit found 28 non-compliance issues and four recommendations are made.

Improvements have been made in the following areas since the last audit:

- the timeliness of registry updates has further improved
- the issues related to ICP days and electricity supplied accuracy have been resolved.

The main issues identified during this audit are:

- some distributed unmetered load issues are still existing, leading to incorrect submission information
- improvements are required to ensure submission of consumption information for ICPs incorrectly recorded as de-energised
- some unmetered load daily kWh figures are incorrect.

Four recommendations are made in the report. The three most important ones are as follows:

- re-establish monitoring of the accuracy of active dates vs initial energisation and certification dates
- require energisation agents to provide better clarity regarding energisation dates
- re-establish the management of situations where pre-pay ICPs have not had a vend for a long period of time.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The table below provides some guidance on this matter and contains a future risk rating score of 52, which results in an indicative audit frequency of six months. I have considered this result in conjunction with Contact's plans to remedy the issues raised and my recommendation for next audit date is 12 months.

The matters raised are shown in the tables below:

## Table of Non-Compliance

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	11.2 of part 11	Some registry discrepancies.	Moderate	Low	2	Identified
Metering certification	2.10	10.33(2) of part	One metering installation not certified within 5 business days of energisation.	Strong	Low	1	Identified
Changes to registry	3.3	10 of schedule 11.1	10 of schedule 11.1.	Moderate	Low	2	Identified
MEP nomination	3.4	11.8 of part 11	Four incorrect MEP nominations.	Moderate	Low	2	Identified
Provision of registry information	3.5	Clause 9 of schedule 11.1	Some late changes to Active. Some late MEP notifications. Some incorrect Active dates.	Moderate	Low	2	Identified
ANZSIC codes	3.6	9(1)(k) of schedule 11.1	Some incorrect ANZSIC codes.	Strong	Low	1	Identified
Unmetered load	3.7	9(1)(f) of schedule 11.1	Daily unmetered kWh figures incorrect for some ICPs.	Moderate	Low	2	Identified
Active status	3.8	17 of schedule 11.1	Some incorrect Active dates.	Moderate	Low	2	Identified
Inactive status	3.9	19 of schedule 11.1	Incorrect deenergised status for some ICPs.  Credit disconnections not recorded immediately in the registry.	Moderate	Medium	4	Identified
Switching	4.3	5 of schedule 11.3	6 late CS files.	Strong	Low	1	Identified
	4.4	6 of schedule 11.3	36 Late RR files.	Strong	Low	1	Identified
	4.11	12 of schedule 11.3	122 Late RR files.	Strong	Low	1	Identified
	4.14	16 of schedule 11.3	1 Late CS file.	Strong	Low	1	Identified
	4.15	17 of schedule 11.3	73 Late NW files.	Strong	Low	1	Identified
Shared unmetered	5.1	11.14 of part 11	21 incorrect shared unmetered load fields.	Moderate	Low	2	Identified
Unmetered threshold	5.2	10.14(2)(b) of part 10	4 unmetered ICPs with consumption greater than 6,000 kWh per annum.	Strong	Low	1	Identified

	5.3	10.14(5) of part 10	4 unmetered ICPs with consumption greater than 6,000 kWh per annum and not resolved within 20 business days.	Strong	Low	1	Identified
Distributed unmetered load	5.4	11 of schedule 15.3	Inaccurate submission information for several databases.	Moderate	Medium	4	Identified
Electricity conveyed	6.1	10.24 of part 10	Meters bypassed leading to no consumption being recorded for the bypassed period.	Moderate	Low	2	Investigating
Derivation of meter readings	6.6	Clause 5 of schedule 15.2	Phase failure monitoring not in place for all regions.	Moderate	Low	2	Investigating
Interrogate meters once	6.8	7(1) & (2) of schedule 15.2	The requirement to use best endeavours to obtain a read for all ICPs not read during the period of supply was not met.	Moderate	Low	2	Investigating
Annual interrogation	6.9	8(1) & (2) of schedule 15.2	The requirement to use best endeavours to obtain a read for all ICPs annually was not met for 3 of 10 ICPs sampled. NHH pre-pay meters not included in the reporting to the authority.	Moderate	Low	2	Identified
90% read target	6.10	9 of schedule 15.2	The requirement to use best endeavours to obtain a read for 90% of ICPs every four months was not met.	Moderate	Low	2	Identified
Event logs	9.6	17 of schedule 15.2	AMI event information not adequately obtained and monitored.	Moderate	Low	2	Identified
HHR aggregates file	11.4	15.8 of part 15	HHR aggregates file does not contain electricity supplied information.	Strong	Low	1	Not required. Breach risk rating excluded from total
Creation of submission information	12.2	15.4 of part 15	No submission for some disconnected ICPs where consumption is present.	Moderate	Medium	4	Identified
Permanence of meter readings	12.8	4 of schedule 15.2 and clause	Some estimates not replaced at R14.	Moderate	Low	2	Identified

		15.2 of part 15					
Forward estimate accuracy	12.12	6 of Schedule 15.3	FE accuracy threshold not met for some balancing areas.	Strong	Low	1	Identified
HE targets	13.3	10 of Schedule 15.3	HE targets were not met for some NSPs.	Moderate	Low	2	Identified
Future Risk Rating					52		
Indicative Next Audit Frequency					6 months		

Future risk rating	0	1-3	4-14	16-40	41-55	55+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

## Table of Recommendations

Subject	Section	Recommendation	Description	Remedial action
Provision of registry information	3.5	Clause 9 of schedule 11.1	Re-establish monitoring of the accuracy of active dates vs IED and certification dates. Require energisation agents to provide better clarity with dates.	Cleared
Annual interrogation	6.9	8(1) & (2) of schedule 15.2	Review the meter read compliance reports to confirm whether <ul style="list-style-type: none"> <li>- They are based on actual reads loaded in SAP. The report should include any actual read used for reconciliation.</li> <li>- Period of supply includes periods where ICPs where switched out or inactive. It should only include periods where the ICP is continuously active.</li> </ul>	Investigating
Pre-pay no vend	9.5	16 of schedule 15.2	Re-establish the management of pre-pay no vend examples.	Identified
Historical estimates	12.11	4 of schedule 15.3	Confirm whether the 35 kWh recorded on 15/09/16 for ICP 0150821506LC1D3 is valid and supported by a validated meter reading.	Identified

## Table of Issues

Subject	Section	Recommendation	Description
NHH meter readings	6.7	6 of schedule 15.2	NHH readings apply to the end of the previous day for NHH to HHR meter changes to ensure accuracy of submission and ICP days files.

## Persons Involved in This Audit

Auditor:

Name	Company	Role
Steve Woods	Veritek Limited	Lead Auditor
Tara Gannon	Veritek Limited	Supporting Auditor

Contact personnel assisting in this audit were:

Name	Title
Bernie Cross	Energy Reconciliation Manager
KP Chiew	Senior Reconciliation Analyst
James Buckley	Energy Reconciliation Analyst
Emma Hudepohl	HDM Team Member
Tina Papadopoulos	HDM Team Member
Joel Kisteria	Reconciliation Process Analyst
Nathan Joyce	Registry Analyst
James Alabaster	Meter Services Development Manager
Darren Law	Field Services Team Leader
Paul Robson	Field Services Co-ordinator
Jeffrey Elliott	Switching & IDM Team Leader
Avtar Singh	Switching Team Leader
Allie Jones	HDM Team Analyst and 2IC

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# 1. Administrative

## 1.1 Summary of Previous Audit

Contact provided a copy of their previous audit, conducted in July 2016 by Steve Woods (lead auditor) of Veritek Limited, and the summary tables below show that some of the issues raised are yet to be completed, or still exist. Further comment is made in the relevant sections of this report.

### Table of Non-Compliance

Subject	Section	Clause	Non compliance	Status
Metering certification	1.11.5	10.33(2) of part 10	Certification of four ICPs not completed within five days of livening.	Still existing
Electricity Conveyed	1.11.7	12& 17 of schedule 11.1 10.12, 10.24. 19 of schedule 11.1, 2(1)(b) of schedule 15.3 and 15.2 of part 15	Meters bypassed leading to no consumption being recorded.	Still existing
Switching	2.1.2	3 of schedule 11.3	Incorrect AN code of "MU" sent for 1 ICP.	Cleared
	2.1.4	5 of schedule 11.3	21 late CS files.	Still existing
	2.1.5	6 of schedule 11.3	53 late RR files.	Still existing
	2.2.2	10 of schedule 11.3	Some late CS files.	Still existing
	2.2.4	12 of schedule 11.3	214 late RR files.	Still existing
Provision of Information to the Registry	2.8.2	9 of schedule 11.1	Registry information not provided within 5 business days of commencement of trading.	Still existing
Changes to Registry Information	2.8.3	10 of schedule 11.1	Registry information not provided within 5 business days of change.	Still existing
Recording of MEP in the Registry	2.8.8	18 (4)&(5) of part 11	No MEP nomination for an active ICP. Late MEP nomination for all ICPs backdated greater than five business days.	Still existing

Subject	Section	Clause	Non compliance	Status
Registry Discrepancies	2.8.9	11 of schedule 11.1	Registry discrepancies between Contacts records and the registry.	Still existing
ANZSIC Codes	2.8.10	9(1)(k) of schedule 11.1	A relevant ANZSIC code not recorded correctly in all instances.	Still existing
Management of "Active" Status	2.8.12	17 of schedule 11.1	Incorrect active date recorded.	Still existing
Changes to Unmetered Load	2.10.1	(1)(f) of schedule 11.1	Daily unmetered kWh figures incorrect for some ICPs.	Still existing
Unmetered Threshold	2.10.2	10.14 of part 10	1 ICP (1001141538UNAA0) with annual consumption more than 6,000 kWh.	Still existing for four ICPs
Maintaining Shared Unmetered Load	2.10.3	11.14 of part 11	16 ICPs with incorrect or no shared unmetered load recorded.	Still existing
HHR event logs	3.2.2	11(2)(d) of schedule 15.2	No event logs collected for manually read data storage devices.	Still existing
HHR clock synchronisation	3.2.4	2(5) of schedule 15.2	No clock synchronisation occurring for manually read meters.	Cleared
NHH metering information	3.3.3	5(b) & (c) of schedule 15.2	Checks for phase failure and broken or missing seals not conducted and recorded.	Cleared
Interrogate Meters Once During Period of Supply	3.3.5	7(1) & (2) of schedule 15.2	"Best endeavours" not achieved for ICPs with short period of supply.	Still existing
Interrogate Annually	3.3.6	8(1) & (2) of schedule 15.2	NHH pre-pay meters not included in the reporting to the authority.	Still existing
NHH Meters 90% read at 4 mths	3.3.7	9(1) & (2) of schedule 15.2	20 NSPs below 90% read threshold.	Still existing
AMI validation	4.2.5	21(5) of schedule 15.2	AMI event information not adequately obtained and monitored.	Still existing
Calculation of ICP days	5.2	15.6 of part 15	ICP days incorrectly calculating when historic meter and tariff changes are made with two readings on one day.	Cleared
Electricity supplied	5.3	15.7 of part 15	Electricity supplied information incorrect for KCH0012 for November 2015 due to a reversed invoice not flowing through to the file.	Cleared
HHR Aggregates	5.4	15.8 of part 15	HHR aggregates file does not contain electricity supplied information.	Still existing
Permanence of Meter Readings for Reconciliation	6.1.2	4 of schedule 15.2	Some estimates not replaced at R14.	Still existing

Subject	Section	Clause	Non compliance	Status
Creation of Submission Information	6.1.3	15.2 and 15.12 of part 15	Some inaccurate submission information for bridged meters and consumption on disconnected ICPs.	Still existing
Forward Estimate Process	6.1.5	6 of schedule 15.3	FE accuracy threshold not met for some balancing areas.	Still existing
Historical Estimates	6.2.4	10 of schedule 15.3	HE targets not met for some NSPs.	Still existing

## Table of Recommendations

Subject	Section	Clause	Recommendation for Improvement	Status
Switching	2.1.2	3 of schedule 11.3	Review system logic for "MU" AN code application.	Cleared
Recording of MEP in the Registry	2.8.8	11 of schedule 11.1	Check for sites with meters removed from registry and no MEP switch or meter change in progress be added to the registry discrepancy process.	Cleared
Maintaining Shared Unmetered Load	2.10.3	11.14 of part 11	Include a check for discrepancies between the two unmetered load fields in SAP as well as against the registry.	Cleared

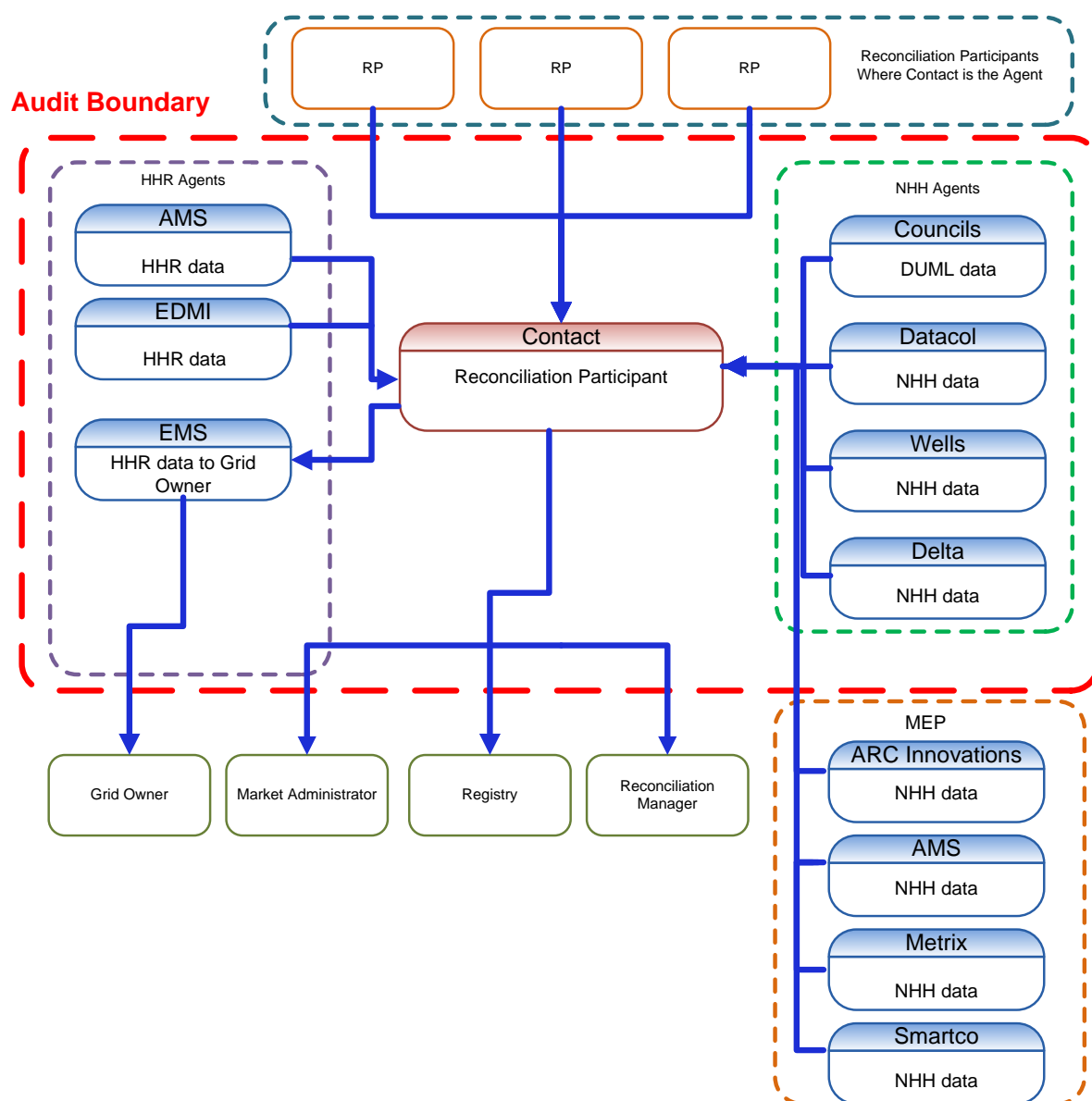
## 1.2 Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Contact, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1.

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.1.

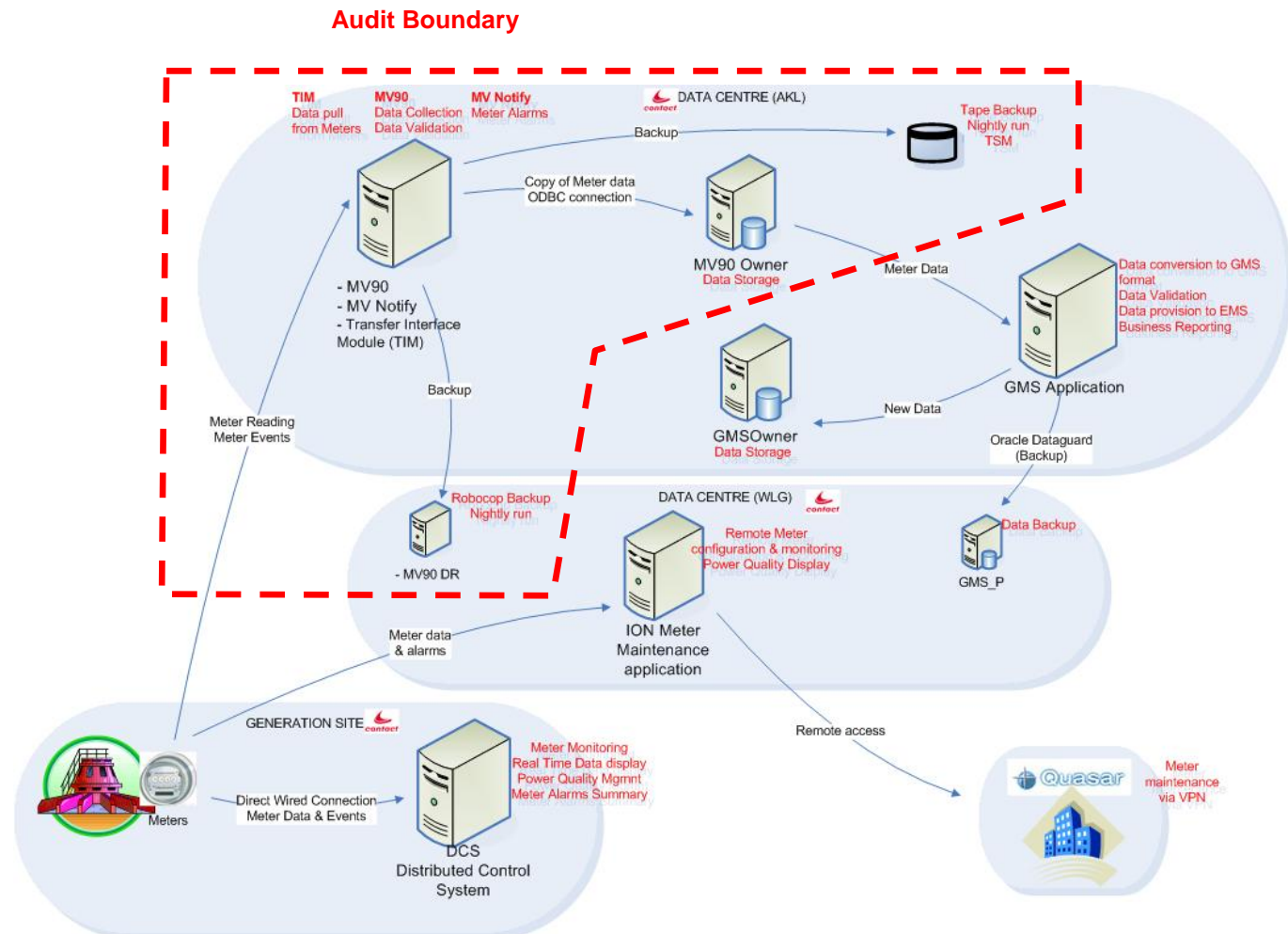
The audit was carried out on June 13<sup>th</sup> to 15<sup>th</sup> 2017 at Contact's offices in Wellington.

The scope of the audit is shown in the diagram below, with the Contact audit boundary shown for clarity.



Contact acts as an agent to other Reconciliation Participants who have responsibility for embedded network “gate” ICPs. It is intended that these parties will use Contact’s audit report to support their application for certification.

The diagram below is specific to Contact’s HHR data collection activities for generation metering, and it shows the audit boundary for this area.



The table below shows the tasks under clause 15.38 of part 15, for which Contact requires certification. This table also lists those agents who assist with these tasks:

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing Data to Contact
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	Datacol – NHH Wells – NHH Delta - NHH AMS – HHR EDMI – HHR	AMS NHH AMI data Metrix NHH AMI data ARC Innovations NHH AMI data Smartco NHH AMI data
(c)(iii) - Creation and management of volume information	AMS – HHR EDMI – HHR	
(d) – Calculation of ICP days		
(da) - delivery of electricity supplied information under clause 15.7		
(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		
(f) - Provision of metering information to the Grid Owner	EMS	



### 1.3 Exemptions from Obligations to Comply With Code (Section 11 of Electricity Industry Act 2010)

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.

Contact has been granted the following exemptions:

- No. 177. Exemption to clause 8(g) of schedule 15.3 of the Electricity Industry Participation Code 2010 ("Code") in respect of providing half-hour ("HHR") submission information instead of non half-hour ("NHH") submission information for distributed unmetered load ("DUML"). This exemption expires on 31 October 2023 and is therefore still valid.
- No. 185. Exemption to allow the annual consumption to exceed 6,000 kWh per annum for 11 ICPs shown in the table below. This exemption expires when Contact is no longer the trader for the listed ICPs. As shown below, the exemption is no longer required for any of the ICPs.

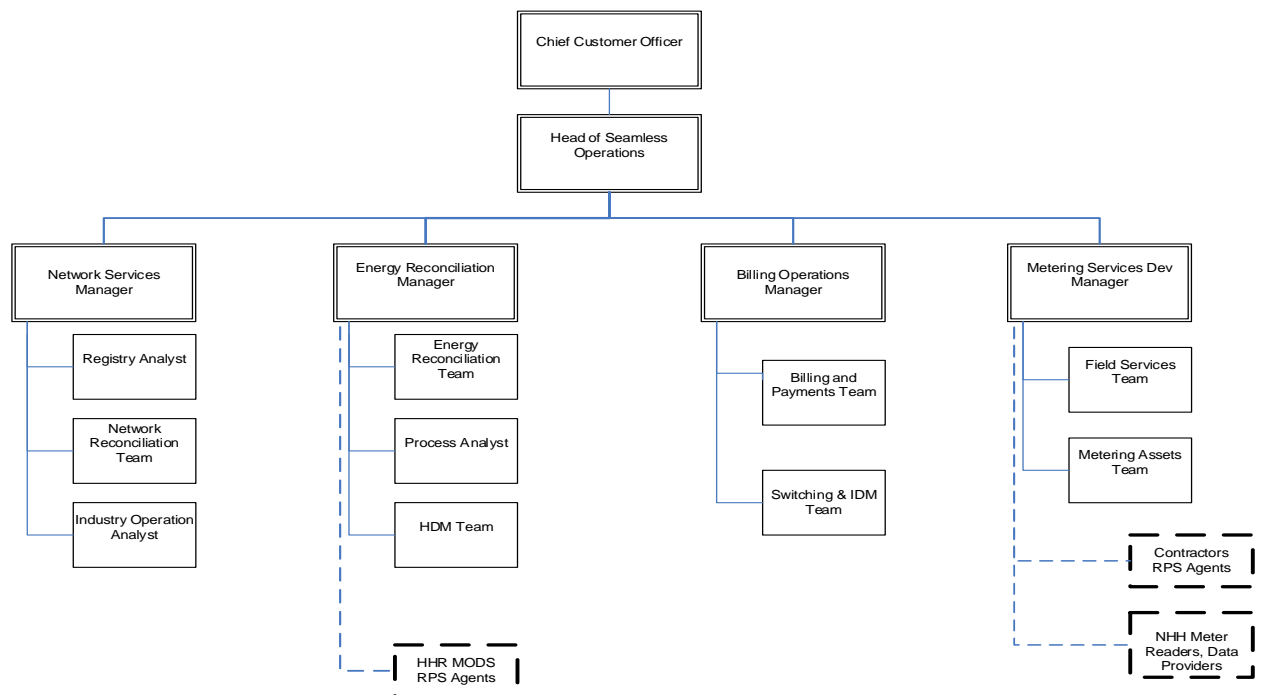
ICP	Comments
0000038627NTADB	ICP decommissioned
0000557925UND32	ICP decommissioned
0000600085HBD8B	ICP decommissioned
0000916610TEA3F	ICP has switched to Meridian
0001183605HB0B0	Consumption now below 6,000 kWh per annum
0005000772HBA61	ICP has switched to Genesis
0008801012TP900	Unmetered load is no longer present
0014189134HBC96	ICP has switched to Meridian
0016096032EL6DD	ICP has switched to Genesis
0018137292HB7F1	ICP decommissioned
0046054751HBFE7	ICP has switched to Meridian

- No. 191. Exemption from the requirement to comply with clause 10.24(c) in respect to ICP 0000032431HR99C. This exemption expires on 31 December 2023 or upon completion of a major upgrade to the Ohaaki substation. The major upgrade has not occurred therefore this exemption is still valid.
- No 203 Exemption from clause 10.24 (c) of Part 10, allowing the use of subtraction to determine submission information for ICP 0000880392WEA92. This exemption expires on 31 December 2022, or the completion date of a major upgrade to the switchboards at Contact's co-generation plant at the Te Rapa dairy factory. The major upgrade has not occurred therefore this exemption is still valid.

- No 223 Exemption to clause 10.24 (c) of Part 10, allowing the use of subtraction to determine submission information for ICP 0000840407WE388. This exemption expires on 31 December 2024, or when Contact is no longer the trader, or when Contact no longer has an agreement to receive half hour metered data with the retailer of any ICP required in the subtraction calculation at Solid Energy's Rotowaro mine, or the date on which any embedded generation is installed on any part of Solid Energy's Rotowaro mine between Contact's outgoing and incoming metering points. Embedded generation is not installed, therefore this exemption is still valid.
- No. 238 Exemption to clause 11.32A(1) of the Electricity Industry Participation Code 2010 ("Code") to supply consumer consumption information to a consumer for any installation control point where:
  - a. Contact has used the information to provide any service to the consumer; and
  - b. Contact has sourced that information from Metrix Limited's ("Metrix") advanced meter midnight reads, which Contact does not use for billing purposes.
 The requirements of this exemption fall outside of the scope of this audit.

## 1.4 Organisation Structure

Contact has provided an organisation chart of the relevant part of their structure, which is shown below.



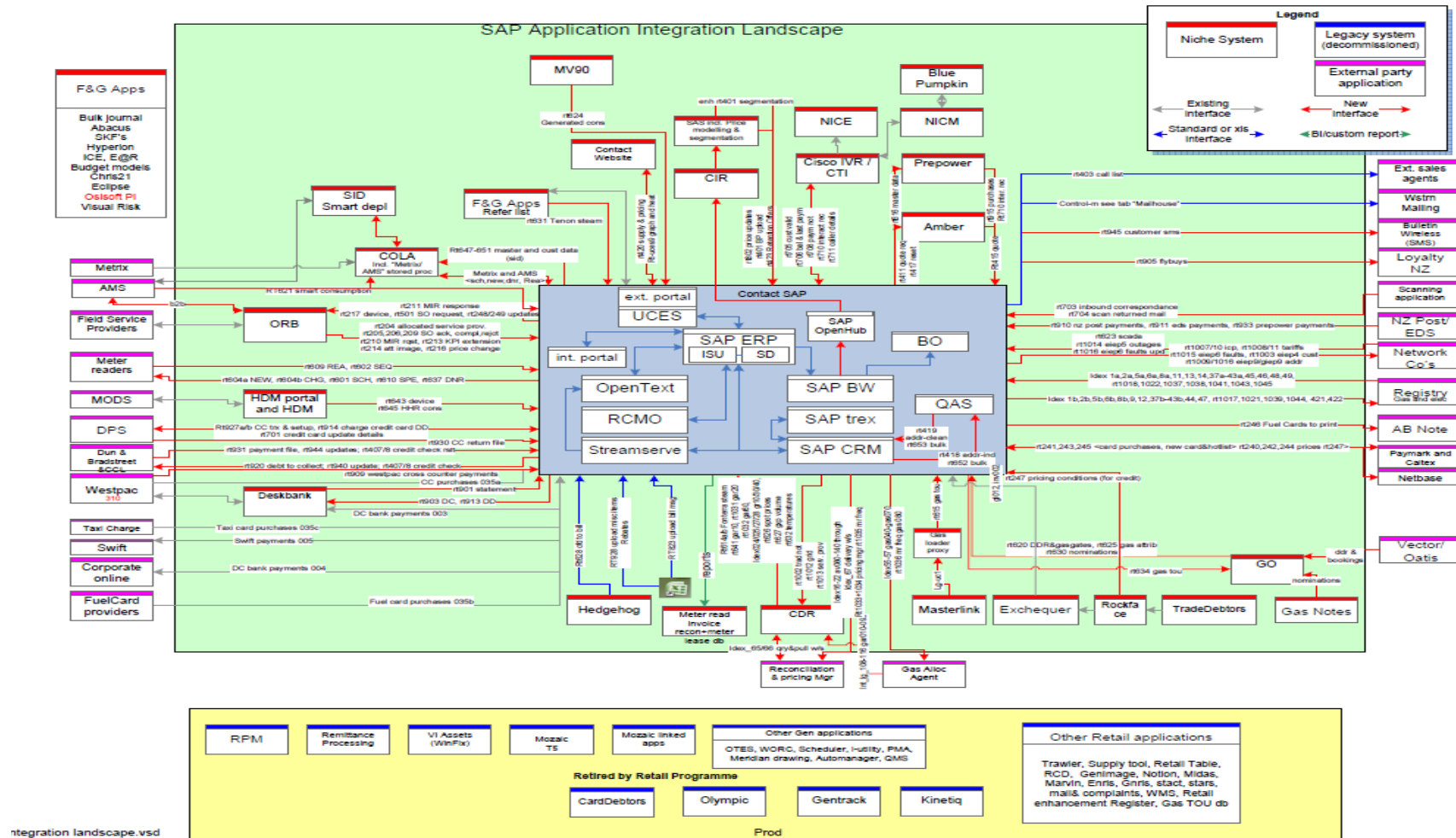
## 1.5 Use of Agents (Clause 15.34 of Part 15)

Contact uses a number of agents in relation to the functions covered by the scope of this audit. They are identified in Section 1.2.

Some DUMML audit reports are attached as appendices and contain a number of non-compliance issues. I have noted a “summary” non-compliance in Section 2.10.4.

## 1.6 Hardware and Software

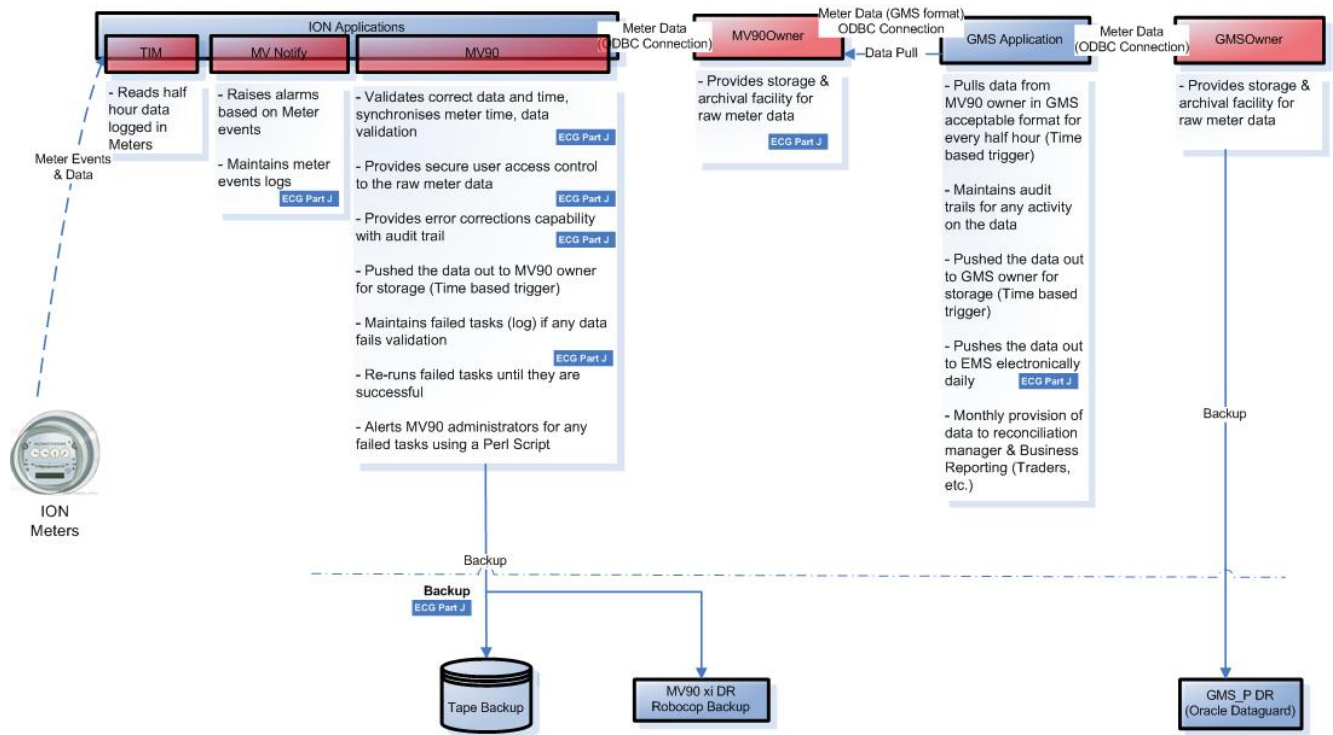
A diagram of Contact's system configuration is shown below. Backups are conducted in accordance with standard industry protocols.



## Generation Meter data

The systems employed for the management of Generation Meter Data shown in Section 1.2.

The diagram below shows an overview of data flow, validation, storage and backup arrangements.



## 1.7 Breaches or Breach Allegations

The Electricity Authority confirmed there are no breach allegations against Contact for the audit period.

## 1.8 ICP Data

Contact provided a list as at April 2017. The table below shows ICPs by status.

ICP Status	Number of ICPs 2017	Number of ICPs 2016	Number of ICPs 2015	Number of ICPs 2014
Active (2)	425,323	427,257	443,255	449,440
Inactive - new connection in progress (1,12)	0	0	1	2
Inactive - de-energised remotely by AMI meter (1, 7)	1,678	1,283	0	0
Inactive – disconnected at meter box (1,11)	0	0	0	5
Inactive – vacant (1,4)	8,135	8,564	7,569	7,795
Inactive - reconciled elsewhere (1,5)	2	4	2	3
Inactive – ready for decommissioning (1,6)	1,951	2,876	2,538	2,516
Inactive – disconnected at pole fuse (1, 8)	103	2	1	-
Inactive – de-energised due to meter disconnected (1, 9)	1	1	-	-
Decommissioned (3)	45,670	42,970-	40,528	37,326

The active ICPs were examined. This list is summarised by Metering Category in the table below.

Category	2017	2016	2015	2014	2013	2012	2011
1	417,819	419,055	434,214	440,325	446,700	451,110	462,647
2	5,201	5,460	5,753	5,848	5,531	5,876	5,718
3	942	990	1,003	1,074	1,072	1,018	1,034
4	383	388	375	378	363	307	285
5	52	49	58	57	18	15	17
9	250	273	355	377	-	-	-
Blank	676	1,042	1,497	1,408	-	-	-
0	N/A	NA	NA	NA	1038	830	866

## 1.9 Authorisation Received

Contact provided a letter of authorisation to Veritek, permitting the collection of data from other parties for matters directly related to the audit.

## 2. Operational Infrastructure

### 2.1 Relevant Information (Clause 10.6 of Part 10 & Clause 11.2 of Part 11 & 15.2 of Part 15)

*A participant must take all practicable steps to ensure that information that the participant is required to provide to any person under Part 15 is:*

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

*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**

The process to find and correct incorrect information was examined. The list file was examined to confirm that all information was correct and not misleading. The registry validation process was examined in detail in relation to the achievement of this requirement. The list file was examined to identify any registry discrepancies.

#### **Audit Commentary**

Registry data is verified against Contact's own records on a regular basis. All fields in the registry are validated against SAP. Contact demonstrated a comprehensive schedule detailing fields that are validated monthly and other fields that are validated on a more frequent basis determined by the discrepancy being assessed. This includes the submission aggregation factors. The reporting continues to be reviewed and amended to include all known discrepancies. The resulting discrepancies identified are not always being actioned within a reasonable timeframe, leading to late updates to the registry.

The list file from May 2017 was analysed and I found the following issues.

	Quantity			
Issue	2017	2016	2015	Comments
ICP at status "new connection in progress" (1,12)	0	0	1	No evidence of this occurring.
Active date variance with Initial Energisation Date	50	658	859	Some incorrect dates by Contact
Active ICPs with profile RPS HHR	10	41	92	These are being corrected in SAP but an automated process overwrites with the profile with RPS HHR after each billing cycle. A solution is being explored to correct this.
Cat 3 metered with NHH submission flag	0	2	1	
Blank ANZSIC codes	0	0	1	
ANZSIC "T999" not stated	161	54	137	See section 3.6 "ANZSIC Codes" below.
ANZSIC "T994" don't know	524	448	755	See section 3.6 "ANZSIC Codes" below.

	Quantity			
Issue	2017	2016	2015	Comments
ANZSIC "T998 "response outside of scope	1	0	1	See section 3.6 "ANZSIC Codes" below.
ANZSIC "T997 "response unidentifiable	0	1	0	
Cat 3 with Residential ANZSIC code	1	2	-	See section 3.6 "ANZSIC Codes" below.
Active ICP with no MEP	116	1	1	See sections 2.9, 2.10 and 3.4
Category 9 but MEP MNON nominated and UML "N"	72	1	3	See sections 2.9, 2.10 and 3.4
ICPs with Distributor unmetered load populated but retail unmetered load is blank	31	33	74	See section 3.7 "Maintaining Unmetered Load".
ICPs with shared unmetered load flag Y but load is recorded as zero	0	0	12	
ICPs with incorrect shared unmetered load	7	11	4	See section 5.1 "Maintaining Shared Unmetered Load".
ICPs have UML flag N and no unmetered load but Dist field shows shared unmetered load.	14	4	12	See section 5.1 "Maintaining Shared Unmetered Load".
Status 1,11, disconnected at meter box	0	0	0	No ICPs at 1, 11.
Submission against the RPS profile where the registry has a controlled profile.	19,821	4,510	13,277	

Non-compliance	Description		
<b>With:</b> Clause 11.2 of part 11  <b>From/to:</b> 01/07/16 to 30/06/17	Some registry discrepancies. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because there are some improvements that can be made to them. Also, whilst identification of issues is sound, there are some delays in resolving them.  The audit risk rating is low, because the impact on submission information and other participants is minor.		
Actions taken to resolve the issue		Completion date	Remedial action Status



<p><u>Active date variance with Initial Energisation</u></p> <p>Contact is investigating its reporting capabilities and accuracy around the IED, Status (active) date, and Orb completion date to actively monitor and resolve mismatches between the various systems involve in the new connection process.</p> <p><u>ANZSIC code discrepancies</u></p> <p>CTCT has implemented reporting and a process to identify all ICP's which has an ANZSIC code miss-match or a 'T9' series ANZSIC code applied at time of switch gain and these are being corrected via a manual correction process.</p> <p>This manual process has resolved the backlog identified in this audit report and an exception list is worked regularly to update the registry within the required timeframes.</p> <p><u>Unmetered and Shared Unmetered load</u></p> <p>The UML errors were due to ta combination of failed registry updates and also user errors. A clean up of these exceptions is underway and a more regular reconciliation of Contacts systems to the Registry will be undertaken</p>	<p>July 2017</p>	<p>Identified</p>
<p><b>Preventative actions taken to ensure no further issues will occur</b></p>	<p><b>Completion date</b></p>	
<p>ANZSIC code discrepancies</p> <p>CTCT has raised a system enhancement to eliminate the 'T9' series ANZSIC codes from being populated within our systems as part of a switch gain to avoid these codes being applied in the future.</p> <p>Unmetered load</p> <p>A more regular reconciliation of Contacts systems to the Registry will be undertaken</p>	<p>TBA – system change awaiting prioritisation</p>	

## 2.2 Provision of information (Clause 15.35)

*If an obligation exists to provide information in accordance with Part 15, a participant must deliver that information to the required person within the timeframe specified in the Code, or, in the absence of any such timeframe, within any timeframe notified by the Authority. Such information must be delivered in the format determined from time to time by the Authority.*

### **Audit Observation**

Processes to provide information were reviewed and observed throughout the audit.

### **Audit Commentary**

This area is discussed in a number of sections in this report and compliance is confirmed with regard to timeliness and format of information in accordance with Part 15.

## 2.3 Data Transmission (Clause 20 of Schedule 15.2)

*Transmissions and transfers of data related to metering information between reconciliation participants or their agents, for the purposes of the Code, must be carried out electronically using systems that ensure the security and integrity of the data transmitted and received.*

### **Audit Observation**

I observed the relevant SFTP folders for each agent and MEP, and traced five reads from each through to SAP.

### **Audit Commentary**

All HHR data and NHH data is provided by SFTP and the checks mentioned above confirmed compliance.

## 2.4 Audit Trails (Clause 21 of Schedule 15.2)

*Each reconciliation participant must ensure that a complete audit trail exists for all data gathering, validation, and processing functions of the reconciliation participant.*

*The audit trail must include details of information:*

- *provided to and received from the registry*
- *provided to and received from the reconciliation manager*
- *provided and received from other reconciliation participants and their agents.*

*The logs must include (at a minimum) the following:*

- *an activity identifier (clause 21(4)(a))*
- *the date and time of the activity (clause 21(4)(b))*
- *the operator identifier (clause 21(4)(c)).*

### **Audit Observation**

A complete audit trail was checked for all data gathering, validation and processing functions. I reviewed audit trails for a small sample of events. Large samples were not necessary because audit trail fields are expected to be the same for every transaction of the same type.

### **Audit Commentary**

A complete audit trail was viewed for all data gathering, validation and processing functions. The logs of these activities for Contact and all agents include the activity identifier, date and time and an operator identifier.

## **2.5 Retailer Responsibility for Electricity Conveyed - Participant Obligations (Clause 10.4)**

*If a participant must obtain a consumer's consent, approval, or authorisation, the participant must ensure it:*

- *extends to the full term of the arrangement*
- *covers any participants who may need to rely on that consent.*

### **Audit Observation**

I reviewed Contact's current terms and conditions.

### **Audit Commentary**

Contact's terms and conditions include arrangements for meter access and shutdowns and these clauses extend to Contact's agents and are mirrored in agreements with MEPs. Compliance is confirmed.

## **2.6 Retailer Responsibility for Electricity Conveyed - Access to Metering Installations (Clause 10.7(2),(4),(5) and (6))**

*The responsible reconciliation participant must, if requested, arrange access for the metering installation to the following parties:*

- *the Authority*
- *an ATH*
- *an auditor*
- *an MEP*
- *a gaining metering equipment provider.*

### **Audit Observation**

I reviewed Contact's current terms and conditions, and discussed compliance with these clauses.

### **Audit Commentary**

Contact's contract with their customers includes consent to access for authorised parties for the duration of the contract. Contact confirmed that they have been able to arrange access for other parties when requested. This was observed with the meter reading process and with the field services process. Compliance is confirmed.

## 2.7 Physical Location of Metering Installations (Clause 10.35(1)&(2))

*A reconciliation participant responsible for ensuring there is a category 1 metering installation or category 2 metering installation must ensure that the metering installation is located as physically close to a point of connection as practical in the circumstances.*

*A reconciliation participant responsible for ensuring there is a category 3 or higher metering installation must:*

- (a) if practical in the circumstances, ensure that the metering installation is located at a point of connection; or*
- (b) if it is not practical in the circumstances to locate the metering installation at the point of connection, calculate the quantity of electricity conveyed through the point of connection using a loss compensation process approved by the certifying ATH.*

### **Audit Observation**

A discussion was held regarding knowledge of any ICPs with loss compensation present. The presence of loss compensation factors was also checked with the HHR data team.

### **Audit Commentary**

Contact is not responsible for any metering installations with loss compensation factors.

## 2.8 Trader Contracts to Permit Assignment by the Authority (Clause 11.15B of Part 11)

*A trader must at all times ensure that the terms of each contract between a customer and a trader permit the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default*

### **Audit Observation**

I reviewed Contact's current terms and conditions.

### **Audit Commentary**

Contact's terms and conditions contain the appropriate clauses to achieve compliance with this requirement. Compliance is confirmed

## 2.9 Electrical Connection of an ICP (Clause 10.32)

*A reconciliation participant must only request electrical connection of a point of connection if they:*

- accept responsibility for the ICP and the obligations under Parts 10 and 11, and, under Part 15; and*
- have an arrangement with an MEP to provide metering at the point of connection under Part 15.*

### **Audit Observation**

The new connection process was examined in detail to evaluate the strength of controls. The list file and event detail report for the six months from 01/01/17 to 31/03/17 were analysed to confirm process compliance and that controls are functioning as expected.

### **Audit Commentary**

The new connection process is compliant and contains a step for Contact to accept responsibility. I checked 25 NHH and 10 HHR new connections and in all cases, Contact had accepted responsibility.

Contact has arrangements in place with all MEPs, either a signed contract or an exchange of emails confirming an “arrangement” to provide services while the contract is being finalised. The list file contained 72 ICPs where the metering category was “9” indicating meters removed but where unmetered load was not present. I checked 10 ICPs and although Contact had nominated the incorrect MEP for one ICP, there was still an arrangement with the MEP that installed metering. I also checked 20 of 116 ICPs where the MEP field was blank. By the time of the audit five ICPs had been updated on the registry but 15 ICPs still had a blank MEP field. Three incorrect nominations had occurred, but there was still an arrangement in place with the installing MEP. The incorrect nomination issue is raised as non-compliance in Section 3.4.

Compliance is confirmed for these clauses.

## **2.10 Metering Certification (Clause 10.33(2))**

*A reconciliation participant may energise or authorise the energisation of a connection only if the reconciliation participant has accepted responsibility for the point of connection if one or more certified metering installations are in place.*

### **Audit Observation**

The new connection process was examined in detail and the list file as at April 2017 and event detail report for the period January 2017 - March 2017 was analysed.

### **Audit Commentary**

Contact had accepted responsibility for all newly energised ICPs. The analysis showed that one ICP was not certified within five business days of energisation. The ICP is shown below.

ICP	Energisation date	Certification date	Trader
0000438431MPC63	25/06/16	07/07/16	Contact

Non-compliance	Description	
<b>With:</b> Clause 10.33(2) of part 10  <b>From/to:</b> 25/06/16 to 07/07/16	One metering installation not certified within 5 business days of energisation. <b>Potential impact:</b> Medium <b>Actual impact:</b> None <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating: 1</b>	
Audit Risk Rating	Rationale for audit risk rating	
Low	The controls are rated as strong because the new connections process has good reporting in place to identify anomalies. There was no impact on settlement because the certification tests confirmed the installation was recording accurately. The audit risk rating is low.	
Actions taken to resolve the issue		Completion date
Contact has discussed this ICP with the MEP concerned and is also working with its ATH and Field Service Providers to ensure that the ICP is certified within 5 business days of the ICP being Livened		Ongoing
Preventative actions taken to ensure no further issues will occur		Completion date
Regular operational meetings are facilitated with our field service contractors which allows for compliance issues such as this to be discussed in relation to the required timelines required under the code.		Ongoing
		Identified

## 2.11 Arrangements for Line Function Services (Clause 11.16)

*A reconciliation participant must ensure it has an arrangement with the relevant network prior to accepting responsibility for an installation.*

### **Audit Observation**

The process to ensure an arrangement is in place before trading commences on a Network was examined and controls within SAP were checked.

### **Audit Commentary**

Contact demonstrated the existence of either a UoSA or other trading arrangement for all relevant networks. Compliance is confirmed.

## 2.12 Arrangements for Metering Equipment Provision (Clause 10.36)

*A reconciliation participant must ensure it has an arrangement with the relevant MEP prior to accepting responsibility for an installation.*

### **Audit Observation**

The process to ensure an arrangement is in place with the metering equipment provider before an ICP can be created or switched in was checked and a check of controls within SAP.

### **Audit Commentary**

Contact has an arrangement in place with all MEPs that manage metering in relation to their customer base. The new connection process also contains a step that requires nomination of an MEP. MEP MN rejections are monitored to ensure correction occurs if the incorrect MEP is nominated. There were four incorrect nominations during the audit period that were subsequently corrected. Compliance is confirmed.

## 3. Maintaining Registry Information

### 3.1 Obtaining ICP Identifiers (Clause 11.3 of Part 11)

*The following participants must obtain an ICP identifier for any point of connection, as defined in clause 11.3(3) of part 11, to any local network or embedded network:*

- a. a trader who has agreed to purchase electricity from an embedded generator or sell electricity to a consumer*
- b. an embedded generator who sells electricity directly to the clearing manager*
- c. a direct purchaser connected to a local network or an embedded network*
- d. an embedded network owner in relation to a point of connection on an embedded network that is settled by differencing*
- e. a network owner in relation to a shared unmetered load point of connection to the network owner's network*
- f. a network owner in relation to a point of connection between the network owner's network and an embedded network.*

### **Audit Observation**

The "new connections" process was examined in detail to confirm compliance with the requirement to obtain ICP identifiers for points of connection to local or embedded networks.

### **Audit Commentary**

A walkthrough of the process confirmed that this requirement is well understood and managed by Contact. There were no connections to networks identified without ICPs. Compliance is confirmed.

## 3.2 Provision of Information to the Registry (Clause 11.7(2))

*Each trader must provide information to the registry about each ICP at which it trades electricity in accordance with Schedule 11.1.*

### **Audit Observation**

The new connection process was examined in detail. The list file was analysed in conjunction with the event detail report for the audit period to evaluate the updating of the registry in relation to new connections. This clause links directly to Section 3.5 below. The findings for the accuracy and timeliness of updates is detailed there.

### **Audit Commentary**

This clause links directly to Section 3.5 below. The findings for the accuracy and timeliness of updates is detailed there.

## 3.3 Changes to Registry Information (Clause 10 Schedule 11.1)

*If information provided by a trader to the registry about an ICP changes, the trader must notify the registry of the change no later than five business days after the change.*

### **Audit Observation**

The event detail report was analysed for the period of January to March 2017 to identify late registry updates for status changes. A selection of late updates for all changes was evaluated.

### **Audit Commentary**

The tables below show the level of compliance for changes to Active, Inactive and Inactive – ready for decommissioning.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to active-Reconnections	2014	84	60	24	14.4	71%
	2015	2447	1991	456	8.7	81%
	2016	3,249	2,760	489	7.6	85%
	2017	4,134	3,578	556	12.7	91%
Change to de-energised – all statuses except new connection in progress and ready for decommissioning	2014	9	4	5	170.0	44%
	2015	956	889	67	3.9	93%
	2016	4,138	3,978	160	9.6	96%
	2017	4,993	4,915	78	1.2	98%
Change to de-energised ready for decommissioning	2014	36	2	34	14.7	6%%
	2015	1050	323	727	58.1	31%
	2016	483	181	302	90	38%
	2017	515	269	246	34.8	52%



The level of compliance has improved for all categories of status change. I checked a sample of late registry notifications and the findings are summarised below:

- I checked 11 reconnection examples and found that nine related to various different system issues and two related to data entry errors
- I checked 10 disconnection examples and found that two related to data entry, three were due to system issues, which were not picked up for several months afterwards, four related to safety disconnections and late notification by distributors and one related to a building being demolished without Contact's knowledge
- I checked 10 ready for decommissioning examples and found that three related to data entry or system issues, two related to processing delays, four related to late field notification and one was delayed by the field contractor.

Non-compliance	Description
<b>With:</b> Clause 10 of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Registry information not provided within 5 business days of change. <b>Potential impact:</b> Medium <b>Actual impact:</b> Low <b>Audit history:</b> Multiple <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2
Audit Risk Rating	Rationale for audit risk rating
Low	Status changes can have a minor impact on settlement outcomes if consumption information is provided based on the registry status and then needs to be corrected. Market participants can be affected if a switch out occurs for an ICP with the incorrect status. Customers can be affected if invoicing is based on the incorrect ICP status.
Actions taken to resolve the issue	
Completion date	Remedial action Status

<p>Contact completes a monthly reconciliation to identify ICP's where the connection status loaded within the Electricity Registry does not match the connection status within SAP. This reconciliation is to identify ICP's which have been disconnected or connected physically at site however the applicable Registry status event has not been created and sent to the Electricity Registry.</p> <p>Contact's system also identifies all ICP's which have been disconnected or connected physically at site, where the status event created and sent to the Electricity Registry has been returned with a negative acknowledgment. SAP raises an exception (BPEM - Business Process Exception Management) for all negative acknowledgements, these BPEMs are investigated daily based on priority (submission impacts and compliance), and corrections are made accordingly.</p> <p>Contact still has a small number of data cleanse tasks to complete, and has undertaken some root cause analysis of the issues that result in late notifications being sent to the Electricity Registry. I.e. Receiving late notification of connection state changing from contractors and Networks, as well as internal data issues. This root cause analysis will allow Contact to undertake discussions with the relevant parties to seek an improvement in these processes.</p> <p>Contact investigates exceptions identified on an individual ICP basis, determining the root cause, so the appropriate conversations with the relevant areas can be undertaken to prevent a further non-compliance from occurring.</p>	Ongoing	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
The disconnection/connection process is reviewed throughout the year via internal audits, with changes being implemented to resolve any reoccurrence of non-compliances and concerns identified.	TBA	

### 3.4 Trader responsibility for an ICP (Clause 11.18)

*A trader becomes responsible for an ICP when the trader is recorded in the registry as being responsible for the ICP. The responsible trader must ensure that an MEP is recorded in the Registry.*

*A trader ceases to be responsible for an ICP if another trader accepts responsibility in the registry; the ICP is decommissioned. If decommissioning an ICP, the trader must ensure that a final meter interrogation takes place, and that the MEP is notified.*

#### **Audit Observation**

### Retailers Responsibility to Nominate and Record MEP in the Registry

The new connection process was discussed and the list file, as at May 2017, was examined to identify that all active ICPs have an MEP recorded. This analysis found 116 active ICPs that do not have an MEP recorded in the registry. A sample of 20 using the typical case sampling methodology were checked.

### ICP Decommissioning

The process for the decommissioning of ICPs was examined. A selection of ten decommissioned ICPs was checked using the typical case method of sampling to prove the process and confirm controls are in place.

### Audit Commentary

### Retailers Responsibility to Nominate and Record MEP in the Registry

20 of the 116 ICPs with no MEP recorded in the registry were examined, which confirmed that all ICPs had an MEP nominated but the incorrect MEP was nominated in four cases. There are seven ICPs where Contact is making enquiries with the relevant MEPs to confirm whether the correct MEP has been nominated.

Contact use BPEMs (Business Process Exception Management) generated in SAP to manage any MEP rejections. There were four rejections identified in the event detail report and in all cases, a subsequent nomination was made, confirming the process is in place and is identifying rejections.

### ICP Decommissioning

Contact continues with their obligations under this clause. ICPs that are vacant and active, or inactive are still maintained in SAP.

In all cases, an attempt is made to read the meter at the time of removal and if this is not possible then the last actual meter reading is used. This last actual reading is normally the one taken at the time of de-energisation. Contact also advise the MEP responsible that a site is to be decommissioned. A sample of ten ICPs was examined to confirm an attempt to read the meter was made at the time of removal. Actual readings were obtained for nine ICPs. For one ICP, the meter was removed by unknown parties so billing and submission occurred up until the last actual read prior to the meter removal. In all cases, the MEP was notified. Compliance is confirmed.

Non-compliance	Description
<b>With:</b> Clause 11.8 of part 11  <b>From/to:</b> 19/12/13 to 30/06/17	Four incorrect MEP nominations. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2
<b>Audit Risk Rating</b>	<b>Rationale for audit risk rating</b>

Low	<p>The controls are rated as moderate, because some of the ICPs without an MEP have been present for several years.</p> <p>There is no actual impact on settlement because billing and submission is still occurring, so the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action Status
The four incorrect MEP nominations were as a result of human error. There errors have now been corrected		Resolved	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact is looking into creating a quarterly reconciliation to identify ICP's Contact trade on where no MEP metering asset data has been applied in the Electricity Registry (MN acceptance sent).		TBA	

### 3.5 Provision of Information to the Registry (Clause 9 Schedule 11.1)

*The content of files provided to the registry contains the information set out in clause 9 of schedule 11.1.*

#### **Audit Observation**

The new connection process was examined in detail. The list file was analysed in conjunction with the event detail report for the period from 10/01/17 to 31/03/17 to evaluate the updating of the registry in relation to new connections. I used the extreme case methodology examining a sample of ten ICPs that were updated greater than 20 days from the event date. I checked a sample using the typical case methodology of ten ICPs with a variance between the active date and the initial energisation date and meter certification. I checked 14 late MEP nominations using the typical case methodology. I checked ten HHR new connections using the typical case methodology. I checked all registry records for possible discrepancies, using a standard set of queries.

#### **Audit Commentary**

#### **New Connections**

##### **Half Hour**

Half hour connections are managed by the HDM team in Contact. The new connection process was examined and I found that in some cases, the Sales team were not completing the 'move in' process in a timely manner therefore SAP did not send a notification to the registry. The new connection process in SAP requires a customer to be moved in before it will trigger a registry update.

I checked ten new connections to ensure the dates were correct and that the registry was updated within five business days. The results are shown in the table below, indicating that eight of ten updates were late and that one active date is unclear. Four initial energisation dates appear to be incorrect.

ICP	Energisation date	Updated on the Registry	Business Days count	Comments
0000039549HB094	17/03/17	28/03/17	7	Active date is correct.
0007179198RNF5F	20/03/17	27/03/17	5	Data is available from 20/03/17 in period 35. Contact initially appears correct with their date; however zeros are available from the "meter livening" date of 21/02/17 which is the IED. It is unclear which date is the actual energisation date. It is possible energisation may have occurred at the time the meters were installed then the switch may have been turned off.
0000039110HBACC	10/01/17	03/02/17	14	Active date is correct.
0000054169NTD3F	06/04/17	18/04/17	6	Active date is correct.
0001308004EN0A0	31/01/17	16/02/17	11	Active date is correct.
0007179197RN081	27/03/17	05/04/17	7	Active date is correct. Distributor has 15/03/17 as IED.
0007179198RNF5F	20/03/17	27/03/17	5	Active date is correct. Distributor has 21/02/17 as IED.
0007179310RN206	07/03/17	27/03/17	14	Active date is correct.
0007179359RNEF2	23/03/17	07/04/17	11	Active date is correct. Distributor has 17/03/17 as IED.
1099575651CN944	03/03/17	19/04/17	31	Active date is correct. Distributor has 02/03/17 as IED.

The HDM team continue to work with the sales team ensuring that they are aware of the timeframe that Contact have to update the registry. They actively monitor any ICPs at "Ready" that have an initial energisation date populated by the Distributor. As Contact does not use the "New connection in progress" status, the nomination of the MEP will be late for any ICPs not updated within the required timeframe.

#### Non-half hour

Contact does not use the status "new connection in progress" (1,12); they claim ICPs from the "ready": status and change them to active once energisation has occurred.

The table below shows that the registry was updated within five business days for 89% of new connections. This is an improvement on previous years and reflects the success of the improvements with regard to management of the field contract services. The average days to notify the registry has also improved.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Change to active - New connections	2014	63	40	23	6.9	63%
	2015	1,587	1,077	510	9.7	68%
	2016	1,252	985	267	5.6	79%
	2017	1,275	1,138	137	3.1	89%

A sample of the newly connected ICPs backdated greater than 20 days was checked and found that five related to late paperwork back from the field and five related to system or data issues preventing the record from automatically populating the registry. These were then found as part of status validation. There are currently 6,461 registry rejections still to be worked on.

I checked 10 ICPs where the active date was different to the initial energisation date or the certification date. I found the following issues:

- Contact's active date was incorrect for eight of ten examples. Six of the incorrect records were due to unclear or incorrect information provided from the field. One date was incorrect because the distributor had used an incorrect ready date, which was one day later than the energisation date. One record is correct in SAP but incorrect on the registry.
- The initial energisation date is incorrect for three ICPs.
- The certification date is missing or incorrect for six ICPs.

The table below shows the ICPs checked.

ICP	Initial Energisation	Certification	Active	Comments
0000008362TE5DE	22-Feb-17		23-Feb-17	SAP has 22/02/17. Network ready date is 23/02/17 so Contact cannot populate an active date for 22/02/17.
0000008421TE4B9	31-Mar-17	21-Mar-17	21-Mar-17	22/03/17 is the correct date.
0000054170NT9C3	16-Mar-17	17-Mar-17	17-Mar-17	16/03/17 is the correct date and the registry has now been updated.
0000202517MP7B6	14-Mar-17		15-Mar-17	Incorrect date from contractor.
0000202544MP37E	23-Mar-17	22-Mar-17	22-Mar-17	22/03/17 is the correct date.
0000278311MP4C6	15-Mar-17	15-Mar-17	16-Mar-17	Incorrect date from contractor.
0000293194MP459	16-Mar-17		17-Mar-17	Incorrect date from contractor.
0000293195MP81C	16-Mar-17		17-Mar-17	Incorrect date from contractor.
0000348433WTF15	08-Mar-17	08-Mar-17	03-Mar-17	Incorrect date from contractor.
0000952080LN6E6	10-Feb-17		22-Feb-17	SAP corrected for 09/02/17 but the registry still has 22/02/17.

Contact was monitoring the difference between the initial energisation date and the active date but this process has been discontinued. I recommend this check is re-established and that the meter certification date is also included in the check. This will help to identify the correct active date. I also recommend Contact requires their energisation agent to provide better clarity with the energisation dates.

Recommendation	Description	Audited party comment	Remedial action
Regarding: Clause 9 of schedule 11.1.	Re-establish monitoring of the accuracy of active dates vs IED and certification dates. Require energisation agents to provide better clarity with dates.	Monitoring has now been re established	Cleared

### **MEP nomination**

As Contact does not use the “New connection in progress” status, the nomination of the MEP will be late for any ICPs not updated within the required timeframe. The records for 14 late MEP nominations were examined with the following findings:

- late notification from the field for five ICPs
- incorrectly populated ANZSIC codes led to two file rejections - the files had 0 instead of 000000 for residential ICPs
- incorrect MEPs were nominated for three ICPs leading to backdated MEP nominations for the new MEP
- processing delays caused three late MEP nominations
- the update file was rejected for one ICP because the network had reversed their ready date, taking the ICP back to new.

Non-compliance	Description
<b>With:</b> Clause 9 of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Some late changes to Active. Some late MEP notifications. Some incorrect Active dates. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating: 2</b>
<b>Audit Risk Rating</b>	<b>Rationale for audit risk rating</b>

Low	<p>The controls are rated as moderate because there are some improvements that can be made to them, e.g. monitoring of Active date accuracy. Also, whilst identification if issues is sound, there are some delays in resolving them.</p> <p>The audit risk rating is low, because the impact on submission information is low. Late changes to Active can mean submission information is not provided at the earliest opportunity. Billing will also be delayed for some ICPs.</p>		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact will review its prioritisation of new connection exceptions in order to reduce the short term impacts to submission information			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>HHR</p> <p>The HDM team actively monitor any ICPs at "Ready" that have an initial energisation date populated by the Distributor. Where this occurs the field contractor is then followed up regarding late paperwork before Contacts systems are population and the ICP is claimed on the Registry and the MEP is nominated</p> <p>NHH</p> <p>Contact is trying to identify solution to the number of automated workflow process failures and also the small number of registry notification failure. Once we have identified a system solution we will prioritise its implementation</p>		Ongoing	

### 3.6 ANZSIC Codes (Clause 9 (1(k) of Schedule 11.1)

*Traders must populate the relevant ANZSIC code for all ICPs for which they are responsible.*

#### **Audit Observation**

The process to capture and manage ANZISC codes was examined. A Registry List was reviewed to check ANZSIC codes. Google streetview was examined for 20 ICPs.

#### **Audit Commentary**

The list file was analysed and I found the following issues:

- 524 ICPs with code T994 "Don't know"
- 161 ICPs with code T999 "Not stated"
- one ICP with metering category of 3 but a residential ANZSIC code
- one ICP with code T998 "Response outside of scope".



The controls in place include a check between the registry and SAP, plus a check between business class and ANZSIC code. By the time of the on-site audit the quantity of ANZSIC code errors was down to under 100. I checked google streetview for 20 ICPs and I could determine the ANZSIC code for 10 of the 20.

Active ICPs with the incorrect ANZSIC code is recorded as non-compliance.

Non-compliance	Description	
<b>With:</b> Clause 9(1)(k) of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Some incorrect ANZSIC codes. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1	
Audit Risk Rating	Rationale for audit risk rating	
Low	By the time of the on-site audit, the controls were strong and the number of incorrect codes was less than 100. There is no impact on settlement outcomes from incorrect ANZSIC codes but there is a low impact on the Electricity's reporting accuracy, therefore the audit risk rating is low.	
Actions taken to resolve the issue		Completion date
Contact has implemented weekly and monthly reporting and a process to identify all ICP's which has an ANZSIC code miss-match or a 'T9' series ANZSIC code applied at time of contract move in and these are being corrected via a manual correction process. This manual process has resolved the backlog identified in this audit report and an exception list is worked regularly to update the registry within the required timeframes.		31 July 2017
Preventative actions taken to ensure no further issues will occur		Completion date
CTCT has raised a system enhancement) to eliminate the 'T9' series ANZSIC codes from being populated within our systems as part of a switch gain to avoid these codes being applied in the future.		TBA – system change awaiting prioritisation
		Identified

### 3.7 Changes to Unmetered Load (Clause 9(1)(f) of Schedule 11.1)

*Traders must populate the unmetered load details for all ICPs with unmetered load for which they are responsible.*

#### **Audit Observation**

The process to manage unmetered load was examined. The list file as at May 2017 was examined to identify any ICPs where:

- Unmetered load is identified by the Distributor but none is recorded by Contact
- Contact's unmetered load figure doesn't match with the Distributor's figure (where it's possible to calculate this if the Distributor is using the recommended format) and the variance is greater than 1.0kWh per day. 1.0 kWh per day was chosen as a sample only; this does not indicate compliance is achieved if an error is found that is less than 1.0 kWh per day.

#### **Audit Commentary**

All unmetered load new connections or capacity changes require an application to Contact, which then follows the "new connections" process. This includes a verification process, which includes the step of questioning whether the ICP can be metered, and if not then the appropriate information is collected to ensure the daily kWh is correct. There is also a check to ensure any unmetered new connections have an annual consumption less than 3,000 kWh per annum, or between 3,000 and 6,000 kWh for approved load types.

Contact has 1,481 ICPs with standard unmetered load.

I conducted a manual calculation from the distributors' information where this was possible (350 out of 1,481 ICPs) and found a difference greater than 1.0 kWh per day for one ICP (0000714305NVD59 has 1.056 and should have 5.28). Standard unmetered load corrections occur from the point of the change, revisions are not conducted. In total the under submission for the one ICP is 4.22 kWh per day.

There are 31 ICPs where the distributor has unmetered load recorded and Contact does not. Two ICPs were correct in SAP but the registry notification had failed, one was incorrect in SAP because the notification to SAP from the registry failed, seven have incorrect distributor details and 21 are still being investigated, but appear to be genuine unmetered load.

Contact has reporting in place to identify when a distributor makes changes to their unmetered field or where there is distributor information but SAP does not have the unmetered field populated. In addition to this reporting, I recommend validation reporting is developed as an additional step to ensure accuracy of unmetered load fields.

Non-compliance	Description		
<b>With:</b> Clause 9(1)(f) of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Daily unmetered kWh figures incorrect for some ICPs. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because there are some improvements that can be made to them, e.g. monthly validation of outstanding discrepancies. Also, whilst identification if issues is sound, there are some delays in resolving them.  The audit risk rating is low, because the impact on submission information is minor as only a small number of ICPs are affected.		
Actions taken to resolve the issue		Completion date	Remedial action Status
The UML errors were due to ta combination of failed registry updates and also user errors. A clean up of these exceptions is underway and a more regular reconciliation of Contacts systems to the Registry will be undertaken		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
A more regular reconciliation of Contacts systems to the Registry will be undertaken		TBA	

### 3.8 Management of “Active” Status (Clause 17 Schedule 11.1)

*Before being given an “Active” status the retailer is required to ensure that the ICP has only one customer, embedded generator, or direct purchaser; and that the electricity consumed is quantified by a metering installation(s) or other approved method of calculation.*

#### **Audit Observation**

The new connection process was examined in detail as discussed in Sections 2.9 & 3.5 above. The list file as at May 2017 was examined to identify any ICPs still at the status “Inactive - new connection in progress” with an initial energisation date populated.

The process for the management of ICP reconnection was examined. The event detail report for the audit period was analysed and the findings in relation to the timeliness of updates to registry is recorded in Section 3.3 Changes to registry information.

#### **Audit Commentary**

The status of an ICP is only changed to “Active” once confirmation has been received by a contractor. Submission information is provided for all “Active” ICPs.

Before being given an “Active” status the trader is required to ensure that the ICP has only one customer, embedded generator, or direct purchaser; and that the electricity consumed is quantified by a metering installation(s) or other Authority approved method of calculation. SAP will not allow more than one party per ICP nor will it allow an ICP to be set up without either a meter or if it is unmetered, the daily kWh.

As mentioned in Section 3.5, Contact’s active date was incorrect for eight of ten examples where the initial energisation date was different to the active date. Six of the incorrect records were due to unclear or incorrect information provided from the field. One date was incorrect because the distributor had used an incorrect ready date, which was one day later than the energisation date. One record is correct in SAP but incorrect on the registry.

Non-compliance	Description		
<b>With:</b> Clause 17 of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Some incorrect Active dates. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because there are some improvements that can be made to them, e.g. monitoring of Active date accuracy. Also, whilst identification if issues is sound, there are some delays in resolving them.  The audit risk rating is low, because there is either no impact on submission information or a minor impact on submission information related to consumption being apportioned to the incorrect month as a result of incorrect start dates.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact will review its prioritisation of new connection exceptions in order to reduce the impacts to submission information		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Regular operational meetings are facilitated with our field service contractors which allows for compliance issues such as this to be discussed in relation to the accuracy and clarity of the meter install date, energisation date and certification date.		Ongoing	

### 3.9 Management of “Inactive” Status (Clause 19 Schedule 11.1)

*The ICP status of “inactive” must be managed by the relevant trader and indicates that:*

- electricity cannot flow at that ICP; or
- submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information.

### **Audit Observation**

An event detail report for the period of January to March 2017 was reviewed, to identify all changes to inactive during that period.

The inactive status of “new connections in progress” was examined for new connections. The list file was examined to identify any ICPs that had been at “Inactive - new connection in progress” for greater than 24 months.

The process to manage ICPs at the other inactive statuses was examined by conducting a walk-through of the process. The findings in relation to the timeliness of updates to registry is recorded in Section 3.3 Changes to registry information.

### **Audit Commentary**

The status of “Inactive” is only used once a Contact approved contractor has confirmed that the ICP has been disconnected. Contact continues to read all de-energised ICPs. A report was supplied with 1,515 ICPs where consumption is confirmed to have been recorded for Inactive ICPs. There are a number of reasons, which are summarised in the table below.

Quantity	Reason	Total kWh	Comments
16	Consumption after ARCM remote disconnection	159	Consumption not submitted
7	Cannot determine	289,811	It's likely that most of this consumption is not genuine and may relate to incorrect meter readings.
18	Data defect	6,861,975	It's likely that most of this consumption is not genuine
1	Faulty meter	26	Meter appears to be creeping with no load
259	Consumption older than 14 months	97,878	This consumption needs to be submitted
1	Multiple issues	63	This consumption needs to be submitted
29	Process issues	87,318	This consumption needs to be submitted
2	Incorrect disconnection read	2,028,697	This is not genuine consumption
1	Illegal reconnection	102,554	This consumption needs to be submitted
1,181	Unknown	541,865	These will be analysed and resolved by Contact.

The table above shows that there are some scenarios where submission has not occurred and the kWh figure is 287,972, with possibly a further 551,865 kWh related to the unknown scenarios. It appears the status on the registry is incorrect for some ICPs if consumption has occurred.

Contact conducted further analysis prior to the finalisation of this audit report and the following statistics were provided:

- Total exceptions – 1,288

- Quantity investigated – 753 (59%)
- 139,460,097 kWh relates to non-genuine consumption due to misreads or meter faults.
- 155,614 kWh has now been corrected and will be included in the next submission opportunity.
- 297,463 kWh relates to outstanding exceptions of which;
  - 27,623 kWh relates to consumption older than 14 months
  - 6,405 kWh relates to consumption recorded due to gaining traders reconnecting ICPs on a date prior to the actual switch date.

I examined the registry update processes for credit disconnections along with a sample of 10 ICPs provided by Contact. When a credit disconnection occurs, the registry is not updated at that time. Once it's clear that an arrangement is not going to be made with the customer, the customer is "moved out" in SAP and the registry is updated at that point. The 10 ICPs checked confirm this process. The process does not achieve compliance with the requirement to ensure status information is correct.

Consumption for all vacant, "Active" ICPs where consumption is recorded is included in the relevant submission files.

Non-compliance	Description
<b>With:</b> Clause 19 of schedule 11.1  <b>From/to:</b> 01/07/16 to 30/06/17	Incorrect de-energised status for some ICPs. Credit disconnections not recorded immediately in the registry. <b>Potential impact:</b> High <b>Actual impact:</b> Medium <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 4
Audit Risk Rating	Rationale for audit risk rating
Medium	Contact has strengthened their controls in relation to this issue and I consider the current controls to be moderate.  The audit risk rating is medium because there is still up to 300,000 kWh potentially under submitted.
Actions taken to resolve the issue	
Completion date	Remedial action Status

<p>Contact has implemented a reconciliation to identify potential consumption on inactive sites in order to investigate and resolve these as soon as practicable and before the 14 month wash up opportunity where possible.</p> <p>Contact has extended its process documentation and is providing further training for users to eliminate.</p> <p>Further reporting is being developed to identify failed registry status updates so that these are corrected in a more timely manner</p>	Ongoing	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Contact has initiated a review of its processes around credit disconnections to improve registry reporting timeframes	TBA	

### 3.10 ICPs at New or Ready Status for 24 months (Clause 15 Schedule 11.1)

*If an ICP has had the status of "New" or "Ready" for 24 calendar months or more, the distributor must ask the trader whether it should continue to have that status, and must decommission the ICP if the trader advises the ICP should not continue to have that status.*

#### **Audit Observation**

Whilst this is a Distributor's code obligation, I investigated whether any queries had been received from Distributors in relation to ICPs at the "New" or "Ready" status for more than 24 months and what process is in place to manage and respond to such requests.

#### **Audit Commentary**

Contact does not have reporting in relation to this clause, however there is no evidence of non-compliance.

### 3.11 Change of MEP (Clause 10.22(1)(a)(i))

*If the MEP for an ICP which is not also an NSP changes, the trader must notify the registry of the gaining MEP in accordance with Part 11.*

#### **Audit Observation**

The process to manage a change of MEP on an existing ICP was examined. The accuracy and timeliness of these being updated on the registry is recorded in Section 3.3 above.

#### **Audit Commentary**

This clause does not place a responsibility on Contact; it only states that the MEP changes once Contact has advised the registry. Registry advice is covered by Part 11.

## 4. Performing Customer and Embedded Generator Switching

The switching process was examined for NHH ICPs, using the historic switch breach report for the 12 months of the audit period and a three-month snapshot of the event detail report for the period of January to March 2017. A breakdown of this information is provided in the relevant sections of the report.

Contact's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. Contact does not "hold" the NT files for the five business day "cooling off" period. The withdrawal process is used if a customer indicates they do not wish to switch.

As of October 9<sup>th</sup>, 2015, the code requires that all category 1 and 2 half hour sites are switched using the transfer or move in switch process regardless. Contact now has to process all the half hour certified category 1 and 2 sites manually as their system requires them to insert a read for all transfer and move in switches, where previously HHR reconciled category 1 & 2 sites were switched using the half hour switch process.

### NHH Transfer Switching

#### 4.1 Inform Registry of Switch Request for ICPs (Clause 2 of Schedule 11.3)

*The standard switch process applies where a trader and a customer or embedded generator enters into an arrangement in which the trader commences trading electricity with the customer or embedded generator at a non-half hour or unmetered ICP at which another trader supplies electricity, or the trader assumes responsibility for such an ICP.*

*If the uninvited direct sale agreement applies to an arrangement described above, the gaining trader must identify the period within which the customer or embedded generator may cancel the arrangement in accordance with section 36M of the Fair Trading Act 1986. The arrangement is deemed to come into effect on the day after the expiry of that period.*

*A gaining trader must advise the registry of a switch no later than 2 business days after the arrangement comes into effect and include in its advice to the registry that the switch type is TR and 1 or more profile codes associated with that ICP.*

#### **Audit Observation**

The switch gain process was examined to determine when Contact deems all conditions to be met. A sample of five ICPs using the typical sampling methodology was checked to confirm that these were notified to the registry within two business days.

#### **Audit Commentary**

All NT files were sent within two business days of conditions being met. Compliance is confirmed.



## 4.2 Losing Trader Response to Switch Request (Clauses 3 & 4 of Schedule 11.3)

*Within three business days after receipt of notification of a switch from the registry, the losing trader must establish a proposed event date. The event date must be no more than 10 business days after the date of receipt of such notification, and in any 12 month period, at least 50% of the event dates must be no more than five business days after the date of notification.*

*The losing trader must then provide acknowledgement of the switch request by providing the proposed event date to the registry and a valid switch response code; or providing a request for withdrawal.*

### **Audit Observation**

An event detail report for the audit period was reviewed, to identify AN files issued by Contact during the audit period. A sample of two ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach detail report was examined for the audit period.

The event detail report was analysed to assess compliance with the requirement to meet the setting of event dates.

### **Audit Commentary**

The switching process was examined in relation to Contact as the “losing trader” for a sample of NHH ICPs, and in all cases, the correct codes were used. Compliance is confirmed.

The switch breach report for the audit period recorded was examined. All AN files were sent on time. Compliance is confirmed.

Event dates set by the losing trader must be within 10 business days of receipt of a NT file. Over a 12 month period 50% of event dates must be within five business days.

SAP will not allow an event date of greater than ten days to be entered. The event detail report contained 1,641 transfer switches. 14 had an event date between five and ten days. Based on this evidence, Contact is likely to achieve compliance with the requirement to ensure 50% of event dates are within five business days. Compliance is confirmed.

## 4.3 Losing Trader Must Provide Final Information (Clause 5 of Schedule 11.3)

*If the losing trader provides information to the registry in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than five business days after the event date, the losing trader must complete the switch by providing a CS file.*

### **Audit Observation**

An event detail report for the audit period was reviewed, to identify CS files issued by Contact during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption (this is based on the most recent read to read consumption).

I checked a further 10 ICPs where the average daily consumption was zero and five ICPs where the average daily consumption was over 300 kWh.

The process to manage the sending of the CS file within five business days of the event date was examined.

The switch breach history report for the audit period was reviewed to identify late CS files.

### **Audit Commentary**

The accuracy of the content of CS files was confirmed by checking a sample. The content checked included:

- correct identification of meter readings and correct date of meter readings for all NHH and Cat 1 & 2 AMI sites
- accuracy of meter readings
- accuracy of average daily consumption (this is based on the most recent read to read consumption).

Compliance is confirmed for the file content, including for the 15 ICPs where average daily consumption was evaluated.

The switch breach report contained six late files. Four were late by one day, mainly due to waiting for an AMI switch read. Two were Category 2 HHR sites and the Code does not allow the HHR process to be used. These were backdated switches and the gaining trader sent them as TR rather than MI so Contact could never be compliant unless the switches were withdrawn. Contact attempted to withdraw one switch, but the gaining trader rejected the withdrawal.

Non-compliance	Description
<b>With:</b> Clause 5 of schedule 11.3  <b>From/to:</b> 05/08/16 to 24/02/17	6 late CS files. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1
Audit Risk Rating	Rationale for audit risk rating
Low	The controls are strong and only 4 files were genuinely late and only by one day, therefore the impact on settlement outcomes is minor.

Actions taken to resolve the issue	Completion date	Remedial action Status
These breaches were due to either outstanding customer detail related queries with other retailers or metering related issues. In these cases Contact persisted with completing the switch a day or two late and incur a timing related breach rather than initiate a switch withdraw and the re request the ICP in order to reset the switching timeframe as this results in a negative experience for the customer concerned.		Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Contact intends to review and revise our reporting of TR related switches in progress to better reflect when a withdrawal is required in order to reset the switching timeframe where there are outstanding clarifications required regarding metering set up differences between Contact's systems and the Registry.		

#### 4.4 Retailers Must Use Same Reading (Clause 6 & 6A Of Schedule 11.3)

*If the validated meter reading or permanent estimate provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader for a Transfer Switch event, the gaining trader uses the losing trader's validated meter reading or permanent estimate as the switch event meter reading.*

##### **Audit Observation**

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

A sample of five read change requests from the event detail report was selected using the diverse sample methodology. I also checked two of the 36 late RR files to confirm the reasons.

Contact rejected two RR files and I checked both of these, along with a sample of ten RR files rejected by other traders.

### **Audit Commentary**

In cases where Contact is the gaining trader and they dispute the switch meter reading because the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more, they attempt to provide to the losing trader a changed switch meter reading supported by two validated meter readings within four calendar months of the actual event date as required by this clause.

The “switch breach report” recorded 36 late RR files. This is a decrease from the 53 late RRs recorded in 2016. The most common cause for late RR files is lack of meter readings following the switch. The content of RR files is compliant.

Contact rejected two RR files, one because the read was already an AMI read and the other because the other trader was looking at the incorrect meter. Compliance is confirmed.

Ten examples of Contact's RR files being rejected were examined. In all cases there was a genuine reason for Contact's RR and in all cases the readings were changed following negotiation.

The late sending of some RR files is recorded as non-compliance below.

Non-compliance	Description		
<b>With:</b> Clause 6 of schedule 11.3  <b>From/to:</b> 18/04/16 to 17/03/17	36 Late RR files. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are strong and the main issue leading to late files is lack of meter readings, which is a different process. The impact on settlement is minor because the number of ICPs is low; therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action Status
These primarily relate to access issues of some type which has delayed our ability to identify a switch read issue. In these cases our current preference is to maintain accuracy of the registry switch read to ensure the customer is not adversely impacted rather than be compliant with switch timeframes which would deliver an adverse outcome for the customer concerned wherever possible.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact is looking at how to improve the read attainment for newly switch sites to ensure switch read change requests are undertaken in a timelier manner		TBA	

## 4.5 NHH Switch Event Meter Reading (Clause 6(2) and (3) Schedule 11.3)

*If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y on the registry: and*

- the gaining trader will trade electricity from a meter with a half hour submission type in the registry;*
- the gaining trader within five business days after receiving final information from the registry, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

### **Audit Observation**

The process for the management of read requests was examined. The event detail report and switch breach report were analysed. There were only two RR files sent by HHR traders and I examined both of these.

### **Audit Commentary**

Two examples were present in the event detail report, one was accepted and the other one did not relate to the Contact switch, it related to an earlier switch. Compliance is confirmed.

## 4.6 Disputes (Clause 7 of Schedule 11.3 & Clause 15.29 of Part 15)

*A losing trader or gaining trader may notify the other that it disputes a switch event meter reading, notified under clauses 1 to 6. Such a dispute must be resolved in accordance with clause 15.29.*

### **Audit Observation**

Confirm with Contact whether any disputes have needed to be resolved in accordance with this clause.

### **Audit Commentary**

Contact confirms that no disputes have needed to be resolved in accordance with this clause

## NHH Switch Move

## 4.7 Gaining Trader Informs Registry of Switch Request (Clause 9 of Schedule 11.3)

*The code requires that “for each ICP, to which a switch relates, the gaining trader must advise the registry of the switch no later than two business days after the arrangement with the customer or embedded generator comes into effect.”*

### **Audit Observation**

The switch gain process was examined to determine when Contact deems all conditions to be met. A sample of five ICPs using the typical sampling methodology was checked to confirm that these were notified to the registry within two business days.

#### **Audit Commentary**

All NT files were sent within two business days of conditions being met. Compliance is confirmed.

### **4.8 Losing Trader Provides Information (Clause 10 of Schedule 11.3)**

*After receiving notification of a switch request from the registry, the losing trader must respond to the switch request within five business days.*

#### **Audit Observation**

An event detail report for the period January to March 2017 was reviewed to identify AN files issued by Contact during the audit period. A sample of two ANs per response code were reviewed to determine whether the codes had been correctly applied.

The switch breach history report for the audit period was reviewed in relation to late AN files.

CS files are examined in Section 4.10.

#### **Audit Commentary**

The switch breach report for the audit period recorded was examined. All AN files were sent on time.

All AN file content was correct. Compliance is confirmed.

### **4.9 Losing trader determines a different switch date (Clause 10 Schedule 11.3)**

*If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry as described in sub-clause (1)(a):*

- the event date proposed by the losing trader; and*
- a valid switch response code; and*
- final information as required under clause 1.*

#### **Audit Observation**

The setting of event dates for move switches was examined. The event detail report for the audit period was examined comparing the NT requested event date with the AN event date sent by Contact for any switches dated earlier than the NT requested date. The report was also checked to for any event dates that were set greater than ten days from the NT receipt date.

#### **Audit Commentary**

No event dates were set earlier than the requested date. Four were later than 10 business days, but these were not set by Contact, they were set by the gaining trader. Compliance is confirmed.

## 4.10 Losing Trader Must Provide Final Information (Clause 11 of Schedule 11.3)

*If the losing trader has provided information to the registry in accordance with clause 10(a), within three business days after the later of the actual event date or date of receipt of the switch request, the losing trader must provide a CS file.*

An event detail report for the audit period was reviewed, to identify CS files issued by Contact during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of five records. The content checked included:

- correct identification of meter readings and correct date of last meter reading
- accuracy of meter readings
- accuracy of average daily consumption (this is based on the most recent read to read consumption).

I checked a further 10 ICPs where the average daily consumption was zero and five ICPs where the average daily consumption was over 300 kWh.

The process to manage the sending of the CS file within five business days of the event date was examined.

The switch breach history report for the audit period was reviewed to identify late CS files.

### **Audit Commentary**

The accuracy of the content of CS files was confirmed by checking a sample. The content checked included:

- correct identification of meter readings and correct date of meter readings for all NHH and Cat 1 & 2 AMI sites
- accuracy of meter readings
- accuracy of average daily consumption (this is based on the most recent read to read consumption).

Compliance is confirmed for the file content, including for the 15 ICPs where average daily consumption was evaluated.

The switch breach report contained 30 late CS files. I checked all 30 on the registry and they were all sent on time. The switch breach history detail report is incorrect. Compliance is confirmed.

## 4.11 Gaining Trader Changes to Switch Meter Reading (Clause 12 Schedule 11.3)

*The gaining trader may use the switch event meter reading supplied by the losing trader or may, at its own cost, obtain its own switch event meter reading. If the gaining trader elects to use this new switch event meter reading, the gaining trader must notify the losing trader of the switch event meter reading and the actual event date to which it refers as follows:*

- if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
  - if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 4 calendar months of the actual event date, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 2 validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
    - notify the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
    - if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader (clause 12(3)(b))*
- 12(2A) If the losing trader trades electricity from a non-half hour meter, with a switch event meter reading that is not from an AMI certified meter flagged Y on the registry,*
- the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 12(2A)(b));*
  - the gaining trader no later than five business days after receiving final information from the registry, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading (clause 12(2B)).*

### **Audit Observation**

The process for the management of read requests was examined.

The event detail report and switch breach report were analysed to identify all read change requests and acknowledgements during the audit period.

A sample of five read change requests from the event detail report was selected using the diverse sample methodology. I also checked for late RR files in the switch breach report.

Contact rejected two RR files and I checked both of these, along with a sample of ten RR files rejected by other traders.

### **Audit Commentary**

The “switch breach report” contained 122 late RR files. I checked nine of these and found that there were three main issues. Backdates switches, meter reading delays and negotiation of reads with the other trader taking a long time.

The content of RR files is compliant.



Contact rejected two RR files, one because the read was already an AMI read and the other because the other trader was looking at the incorrect meter. Compliance is confirmed.

Ten examples of Contact's RR files being rejected were examined. In all cases there was a genuine reason for Contact's RR and in all cases the readings were changed following negotiation.

Non-compliance	Description		
<b>With:</b> Clause 12 of schedule 11.3  <b>From/to:</b> 02/04/16 to 29/03/17	122 Late RR files. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are strong and the main issue leading to late files is lack of meter readings, which is a different process. The impact on settlement is minor because the number of ICPs is low; therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action Status
A significant proportion of the MI switch read requests are due to backdated switch requests where a read amendment is required. The majority of the balance relate to access issues of some type. In these cases our current preference is to maintain accuracy of the Registry switch read process rather than be compliant with switch timeframes but deliver an adverse outcome for the customer concerned wherever possible		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact is reviewing its meter reading set up and attainment processes for recently switched ICPs with known access issues to investigate what improvements can be done to improve reading attainment		TBA	

## Gaining Trader (HH) Switching

### 4.12 Gaining Trader Informs Registry of Switch Request (Clause 14 of Schedule 11.3)

*The gaining trader switch process applies where a trader and a customer or embedded generator enters into an arrangement in which the trader commences trading electricity with the customer or embedded generator to trade electricity through or assume responsibility for:*

*- a half hour metering installation that is not a category 1 or 2 metering installation, that has an ICP with a submission type half hour on the registry and an AMI flag of "N"; or*

- a half hour metering installation that has a submission flag of half hour and an AMI flag of "N" and is traded by the losing trader as non-half hour; or
- a non-half hour metering installation at an ICP with the losing trader trades through a half hour metering installation with an AMI flag of "N".

#### **Audit Observation**

The HHR switch process was examined and a sample of five ICPs using the typical sampling methodology were checked to confirm that these were notified to the registry within two business days.

#### **Audit Commentary**

All NT files are sent within three days of pre-conditions being met. Compliance is confirmed.

### **4.13 Losing Trader Provision of Information (Clause 15 of Schedule 11.3)**

*Within three business days after the losing trader is informed about the switch by the registry, the losing trader must:*

- 15(a) - provide to the registry a valid switch response code as approved by the Authority; or*
- 15(b) - provide a request for withdrawal of the switch in accordance with clause 17.*

#### **Audit Observation**

The HHR switch process was examined and the event detail report and switch breach report were analysed to identify all HHR switch files sent during the audit period.

#### **Audit Commentary**

The switch breach report for the audit period was examined. All AN files were sent on time. Compliance is confirmed.

### **4.14 Gaining Trader to Notify Registry (Clause 16 of Schedule 11.3)**

*The gaining trader must complete the switch no later than three business days, after receiving the valid switch response code, by advising the registry of the event date.*

#### **Audit Observation**

The HHR switching process was examined and the switch breach report was analysed. The switch breach report recorded one late CS file.

#### **Audit Commentary**

There was one late CS file recorded on the switch breach report for the audit period.

Non-compliance	Description		
<b>With:</b> Clause 16 of schedule 11.3  <b>From/to:</b> 20/03/17	1 Late CS file. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> None <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are strong and the file was only 2 days late. There was no impact on settlement; therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action Status
There are strong reporting and controls in place to ensure that all C&I TOU Switch files are processed in required timeframes.  This CS file was completed 2 days late due to a team member delays in their investigation/resolution of system error. This is a non-standard error and required actions were not identified and actioned in time to ensure CS files processed within 5 business days.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Full knowledge/awareness within the team of this type of issue and the required steps to resolve from a switching compliance perspective.  This includes the creation and publishing of a new process document and providing the tools for all team members to resolve this issue in a timelier manner when encountered in the future.		TBA	

## 4.15 Withdrawal of Switch Requests (Clauses 17 & 18 of Schedule 11.3)

*A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of two calendar months after the event date of the switch.*

*Within five business days after receiving a notification from the registry of a switch, the trader receiving the withdrawal must notify the registry that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal.*

*On receipt of a rejection notification from the registry, a trader may re-submit the switch withdrawal request for an ICP. All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request.*

*If the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 2 business days after receipt of notification from the registry in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16.*

### **Audit Observation**

The switch withdrawal process was examined. The content of a sample of two ICPs from the event detail report for each withdrawal code was checked using the typical sampling methodology. A sample of ten switch rejections were checked using the typical sample methodology. The event detail report was also analysed to confirm timeliness of switch requests, as this is not currently being identified in the switch breach report. This identified 73 ICPs that were backdated greater than two months from the event date. The switch breach report was checked for any late switch withdrawal acknowledgements and found none were recorded.

### **Audit Commentary**

The content of ten NW files was compared to details in SAP, and in all cases, the withdrawal reasons provided by Contact were accurate.

All NW rejections by Contact were based on sound information supported by good notes in SAP.

For the NW rejections by other traders, Contact had good reasons, supported by notes in SAP at the time of sending the NW.

The switch breach report was examined and found no AW breaches.

73 NW files were sent later than two calendar months.

Non-compliance	Description		
<b>With:</b> Clause 17 of schedule 11.3  <b>From/to:</b> 01/07/16 to 30/06/17	73 Late NW files. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> None <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are strong for the management of withdrawals. Whilst the files were late most relate to wrong properties, which often only become clear after billing has occurred and then an investigation is completed. There was a minor impact on settlement due to the correction of consumption information. There was also a minor impact on the customer; therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action Status

As the auditor noted most of these relate to wrong property switch which are not generally identified until after the first bill is produced. In order to restore ICPs impacted by wrong property switch, Contact will initiate a NW request		Identified
Preventative actions taken to ensure no further issues will occur	Completion date	

## 4.16 Metering information (Clause 21 Schedule 11.3)

*For an interrogation or validated meter reading or permanent estimate carried out in accordance with Schedule 11.3:*

- *the trader who carries out the interrogation, switch event meter reading must ensure that the interrogation is as accurate as possible, or that the switch event meter reading is fair and reasonable.*
- *the cost of every interrogation or switch event meter reading carried out in accordance with clauses 5(b) or 11(b) or (c) must be met by the losing trader. The costs in every other case must be met by the gaining trader.*

### **Audit Observation**

The meter reading process in relation to meter reads for switching purposes was examined. Examples to confirm this procedure have been examined as part of the sending of final information for switches and read requests made.

### **Audit Commentary**

Whilst some meter readings have been changed as part of the switching process, the estimation methodology is considered sound. Compliance is confirmed.

## 4.17 Switch Saving Protection (Clause 11.15AA to 11.15AD of Part 11)

*A trader that buys electricity from the clearing manager may elect to have a switch saving protection by giving notice to the Authority in writing.*

*If a protected trader enters into an arrangement with a customer of another trader (the losing trader), or a trader enters into an arrangement with a customer of a protected trader, to commence trading electricity with the customer, the losing trader must not, by any means, initiate contact with the customer to attempt to persuade the customer to terminate the arrangement during the period from the receipt of the NT to the event date of the switch including by:*

- 11.15AB(4)(a) - making a counter offer to the customer; or*
- 11.15AB(4)(b) - offering an enticement to the customer.*

### **Audit Observation**

The Electricity Registry switch save protected retailer list was examined to confirm that Contact is not a save protected retailer.

Win-back processes were examined to determine whether they are compliant.

I checked the event detail report for all withdrawn switches from the audit period to identify any withdrawn switches with a CX code applied prior to the switch completion date in relation to any switch save protected retailers.

#### **Audit Commentary**

There were no examples of NW CX files being sent prior to the switch completion. Compliance is confirmed.

## **5. Maintenance of Unmetered Load**

### **5.1 Maintaining Shared Unmetered Load (Clause 11.14 of Part 11)**

*The trader must adhere to the process for maintaining shared unmetered load.*

#### **Audit Observation**

The registry list was reviewed and found Contact has 240 ICPs with shared unmetered load.

I reviewed processes to identify shared unmetered load and I checked the accuracy of the daily unmetered figure and registry population for all 240 ICPs.

#### **Audit Commentary**

Contact has 240 ICPs with shared unmetered load indicated by the Distributor. Identification of shared unmetered load is included in the registry discrepancy process, but as is evident below the discrepancies are not always being actioned in a timely manner. Analysis of the list file found:

- seven ICPs have a 0.1 kWh difference between the Distributor's record and Contact's calculated load
- 14 ICPs have UML flag N and no unmetered load. These were examined on site and although BP EMs were created to correct these they have not been actioned.

The discrepancies identified above are recorded as non-compliance.

Non-compliance	Description	
<p><b>With:</b> Clause 11.14 of part 11</p> <p><b>From/to:</b> 01/07/16 to 30/06/17</p>	<p>21 incorrect shared unmetered load fields.</p> <p><b>Potential impact:</b> Low</p> <p><b>Actual impact:</b> Low</p> <p><b>Audit history:</b> Multiple times</p> <p><b>Controls:</b> Moderate</p> <p><b>Breach Risk Rating:</b> 2</p>	
Audit Risk Rating	Rationale for audit risk rating	
Low	<p>The controls are rated as moderate because 8 of 14 ICPs with blank unmetered load are still present at the time of the draft report and the 6 that have been corrected took between 6 and 8 weeks to correct.</p> <p>The impact on settlement is only 1.7 kWh per day (under submission), which I consider to be minor, therefore the audit risk rating is low.</p>	
Actions taken to resolve the issue	Completion date	Remedial action Status
<p>Unfortunately these discrepancies are due to gaps in training and also some failed trader events.</p> <p>Contact has recently reviewed all our unmetered documentation and setup a shared access folder so all the staff are able to access the required information. We are also in the process of applying evidenced based training alongside the current peer on peer training the staff receive. This will ensure staff have shown they understand the concepts of unmetered calculations before updating live data The UML errors were due to ta combination of failed registry updates and also user errors.</p> <p>A clean up of these exceptions is underway and a more regular reconciliation of Contacts systems to the Registry will be undertaken</p>	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>In addition to provider some refresher training to users, a more regular reconciliation of Contacts systems to the Registry will be undertaken to ensure all UML is accounted for.</p>	Oct 2017	

## 5.2 Unmetered Threshold (Clause 10.14(2)(b) of Part 10)

*The reconciliation participant must ensure that unmetered load does not exceed 3,000 kWh per annum, or 6,000 kWh per annum if the load is predictable and of a type approved and published by the Authority.*

### **Audit Observation**

Examination of the list file found four active ICPs with unmetered load greater than 6,000 kWh per annum. There are 28 records with consumption between 3,000 and 6,000 kWh per annum. These were all examined.

### **Audit Commentary**

The four ICPs with consumption over 6,000 kWh per annum are shown in the table below.

ICP	Daily kWh	Retailer Field	Comments
0900262060LC870	16.8	0700; 24.0; UML	Investigation is underway. It is a Council ICP
0005872540AL7D8	36	36kw;24;TDC Chlorinator	The Council intends to have this metered within a short timeframe.
0016100062EL8BD	41.4	3600;11.5;36xUnder Veranda Light Twin 40 (100w)	The intention is to have this metered or to replace with LEDs to lower the wattage.
0080354599WE303	74.75	6.5kw;11.5 Park Row Lights Memorial Drive	Installation of metering is proposed for this ICP.

There are 28 ICPs with annual consumption between 3,000 and 6,000 kWh per annum and these are all approved load types.

Non-compliance	Description
<b>With:</b> Clause 10.14(2)(b) of part 10  <b>From/to:</b> 01/07/16 to 30/06/17	4 unmetered ICPs with consumption greater than 6,000 kWh per annum. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1
Audit Risk Rating	Rationale for audit risk rating
Low	The controls are strong with regard to identifying and attempting to resolve the issues associated with these ICPs. Resolution actions have been underway for some time.  There is no suggestion that settlement is inaccurate, therefore the impact is considered minor and the audit risk rating is low.
Actions taken to resolve the issue	
Contact is working with these customers to validate the UML details and also to look at what options are available to the customer in order to achieve compliance	Ongoing
Preventative actions taken to ensure no further issues will occur	Completion date
Remedial action Status	
Identified	



## 5.3 Unmetered Threshold Exceeded (Clause 10.14 (5))

*If the unmetered load limit is exceeded the retailer must:*

- *within 20 business days, commence corrective measure to ensure it complies with Part 10*
- *within 20 business days of commencing the corrective measure, complete the corrective measures*
- *no later than 10 business days after it becomes aware of the limit having been exceeded, advise each participant who is or would be expected to be affected of:*
  - *the date the limit was calculated or estimated to have been exceeded*
  - *the details of the corrective measures that the retailer proposes to take or is taking to reduce the unmetered load.*

### **Audit Observation**

Examination of the list file found four active ICPs with unmetered load greater than 6,000 kWh per annum. These were all examined.

### **Audit Commentary**

Corrective measures commenced within 20 business days but the corrective measures were not complete within a subsequent 20 business days. No other participants are affected so no notification is required.

Non-compliance	Description
<b>With:</b> Clause 10.14(5) of part 10  <b>From/to:</b> 01/07/16 to 30/06/17	4 unmetered ICPs with consumption greater than 6,000 kWh per annum and not resolved within 20 business days. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1
Audit Risk Rating	Rationale for audit risk rating
Low	The controls are strong with regard to identifying and attempting to resolve the issues associated with these ICPs. Resolution actions have been underway for some time but were not completed within 20 business days.  There is no suggestion that settlement is inaccurate, therefore the impact is considered minor and the audit risk rating is low.
Actions taken to resolve the issue	
Contact is working with these customers to validate the UML details and also to look at what options are available to the customer in order to achieve compliance	Ongoing
Preventative actions taken to ensure no further issues will occur	Completion date
Remedial action Status	
Identified	

## 5.4 Distributed Unmetered Load (Clause 11 of Schedule 15.3)

*An up-to-date database must be maintained for each type of distributed unmetered load for which the retailer is responsible. The information in the database must be maintained in a manner that the resulting submission information meets the accuracy requirements of clause 15.2.*

*A separate audit is required for distributed unmetered load data bases.*

*The database must satisfy the requirements of Schedule 15.5 with regard to the methodology for deriving submission information.*

### **Audit Observation**

Contact has responsibility for a large number of distributed unmetered load databases. All have been audited during the audit period. The findings are detailed in the table at the end of this section.

### **Audit Commentary**

Audits were conducted either by Veritek or by Contact's internal audit function. The internal audits were conducted by Allie Jones. I evaluated the audits conducted by Contact's internal audit function against the NZICA Auditing Standard AS-604 and a summary of this evaluation is supplied with each audit.

The process for converting DUML database reports into submission volume was checked and found to be accurate.

The table below shows the DUML issues identified in relation to submission accuracy.

Database	Issue	Submission Impact	Current status
Napier NZTA	Under submission due to incorrect ballast	-1,305 kWh PA	In progress
Wellington CC	Some lamps with a blank wattage field in the database	-3,000 kWh PA	In progress
Upper Hutt CC	Some incorrect wattages	-700 kWh PA	In progress
Tararua DC	Reporting not provided, therefore LED replacements not identified.	+576,400 kWh for 14 month period	In progress
Palmerston North CC	Incorrect gear wattage	-17.112 kWh PA	Submission corrected in 201612
Russell wharf lights 0000910450TE75D	Database inaccuracies	-4,100 kWh PA	In progress

Non-compliance	Description		
<b>With:</b> Clause 11 of schedule 15.3  <b>From/to:</b> 01/07/16 to 30/06/17	Inaccurate submission information for several databases. <b>Potential impact:</b> High <b>Actual impact:</b> Medium <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 4		
Audit Risk Rating	Rationale for audit risk rating		
Medium	The controls in place mitigate risk most of the time, but errors still occur, therefore the control rating is moderate.  There is a moderate impact on settlement outcomes because there are examples of over submission and under submission; therefore the audit risk rating is medium.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact has committed a significant amount of time and effort to engage with our DUMML customers to address these non-compliances. By undertaking a large proportion of the audits ourselves we have been able to build appropriate relationships at an operational level that has resulted in the resolution of some longstanding non compliances  Contact is actively engaging with the DUMML database owners on a regular schedule to address and resolve the non-compliances and where required perform market wash ups to limit the market impact which can be seen by the reduction in assessed submission impact identified by the auditor.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact is actively engaging with DUMML owners to ensure as they roll out LED lighting programs that their systems and processes meet the regulatory requirements going forward.		Ongoing	

The table below shows the additional items from the current DUMML audit reports, which affect submission information:

.

Database	Last audit 11(5) of schedule 15.3	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c) of schedule 15.3	Capacity of load 11(2)(d) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3
Timaru DC	22/03/17	No	Yes	Yes	Yes	Yes	No	Yes
Mackenzie DC	22/03/17	No	Yes	Yes	Yes	Yes	No	Yes
Napier NZTA	28/02/17	No	Yes	Yes	Yes	No	No	Yes
Kapiti Coast DC	29/09/16	No	No	Yes	No	No	No	Yes
Queenstown Lakes DC	20/03/17	No	Yes	Yes	Yes	No	No	Yes
Tasman NZTA	22/07/16	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tasman DC	22/07/16	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mainpower NZTA	24/03/17	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wellington CC	16/05/17	No	Yes	Yes	No	No	No	Yes
Upper Hutt CC	16/05/17	No	Yes	Yes	Yes	Yes	Yes	Yes
Tararua DC	27/09/16	No	No	Yes	No	Yes	No	Yes
Waitaki DC	16/03/17	Yes	Yes	No	Yes	Yes	No	No
Dunedin CC	24/03/17	Yes	Yes	Yes	No	No	No	No
Marlborough DC	21/07/16	Yes	No	No	Yes	No	No	Yes
Masterton DC	16/09/15	Yes	No	Yes	Yes	Yes	Yes	Yes
South Wairarapa DC	24/08/16	Yes	Yes	Yes	Yes	Yes	No	Yes
Carterton DC	26/09/16	Yes	Yes	Yes	Yes	No	Yes	Yes
Palmerston North CC	27/09/16	No	No	Yes	No	No	No	Yes
Waimea Village 0000036536NT7F0	22/07/16	No	No	No	No	No	No	No
Russell wharf lights 0000910450TE75D	24/05/17	No	Yes	Yes	Yes	No	No	Yes
Kapiti Retirement Trust 0015768900ELB35	2016	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auckland Transport	19/11/15	No	No	No	No	No	No	No

Database	Last audit 11(5) of schedule 15.3	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c) of schedule 15.3	Capacity of load 11(2)(d) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3
Burnham Military Camp 0006432514RNA15	15/03/16	No	No	Yes	Yes	Yes	No	Yes
NZDF Woodbourne 0004450017ML9D6	21/08/16	Yes	Yes	Yes	Yes	Yes	Yes	Yes

## 6. Gathering and Storing Raw Meter Data

### 6.1 Electricity Conveyed & Notification by Embedded Generators (Clause 10.13, Clause 10.24 and 15.13)

*A trader must ensure that for each energised ICP that electricity is conveyed is in accordance with the code.*

*A participant is not required to quantify the electricity at a point of connection if the electricity is supplied by an embedded generator who has given the Reconciliation Manager a notification under clause 15.13 of Part 15.*

#### **Audit Observation**

The process to manage distributed generation was examined. The list file was analysed and all ICPs where the Distributor has indicated distributed generation were identified. This was further broken down to identify any ICPs with a non distributed generation profile. The metering configuration for these ICPs was analysed to confirm if an injection channel was present and therefore distributed generation is present.

There were 357 examples of bridged meters during the audit period. I examined 23 examples to identify the reasons for bridging and whether compliance had been achieved.

#### **Audit Observation**

A trader must ensure that for each energised ICP that electricity is conveyed is in accordance with the code. A participant is not required to quantify the electricity at a point of connection if the electricity is supplied by an embedded generator who has given the Reconciliation Manager a notification under clause 15.13 of Part 15.

Contact's list file was examined in relation to ICPs with generation listed by the Distributor. 3,784 were identified. 68 did not have a PV1 profile at the time of the initial analysis, raising a question about whether the generation volume is being recorded. Analysis of the 68 during the audit found the following:

- 10 with import/export metering had been updated to PV1 since the initial analysis was conducted
- the customer confirmed Solar is not present at nine ICPs
- 22 ICPs now have import/export metering and PV1 profile
- service orders issued for import/export metering for four ICPs
- customer has been contacted and the matter is ongoing for 23 ICPs.

Contact has a process in place to identify ICPs where distributed generation possibly exists. They monitor changes to the registry by distributors and then conduct outbound communication inviting them to apply to Contact for approval to supply Contact with their generated quantities. All ICPs have some sort of correspondence in existence regarding the progress of the relevant steps to ensure the agreement is in place, metering is in place and the profile is correct. Compliance is confirmed.

Contact's new connection process includes a check that metering is installed before energisation occurs, or that any unmetered load is quantified. There are three ICPs where subtraction occurs and exemptions are in place for all of these.

Contact's records contained 357 ICPs where remotely disconnected meters had been bridged as a means of reconnecting. When the bridge is removed, Contact is submitting consumption information for the period the bridge is in place. This was not occurring during the previous audit, but it has been resolved now.

I checked the registry for a sample of 23 ICPs and found the following points:

- eight metering installations were not recertified at the time the bridge was removed
- six ICPs were at the incorrect status during the period the ICP was remotely disconnected
- five ICPs had switched in with the bridge in place and the losing trader had not used the PD code in the AN file.

The practice of bridging raises the following compliance issues:

Party Not Compliant	Clauses	Comments
Contact	10.12 of part 10	Contact has interfered with the metering installation without permission from the MEP for some ICPs.
	10.24 of part 10	Contact has not ensured all electricity conveyed is quantified in accordance with the Code.
Various losing traders	19 of schedule 11.1	Status is not changed to 1,7 (de-energised remotely by AMI meter).
MEPs	19(1) and 19(2)(d)&(f) of schedule 10.7	Metering installations have been modified and therefore certification is cancelled. Modification has occurred because wiring has been reconfigured and interference has occurred that affects the accuracy of the metering installation.
	20(2) of schedule 10.7	Registry has not been notified of cancellation of certification.

Non-compliance	Description	
<b>With:</b> Clause 10.24 of part 10  <b>From/to:</b> 01/07/16 to 30/06/17	Meters bypassed leading to no consumption being recorded for the bypassed period. <b>Potential impact:</b> High <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating: 2</b>	
Audit Risk Rating	Rationale for audit risk rating	
Low	The controls in place still allow bridging to occur in some cases, therefore the control rating is moderate.  Estimation occurs for the period the bypass is in place, so the impact on settlement is the difference between actual consumption and estimated consumption, which is considered minor, therefore the audit risk rating is low.	
Actions taken to resolve the issue	Completion date	Remedial action Status
		Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
The issue of bypassing smart meters is a wider issue than those sites identified and resolved by Contact. We will be providing inputs into the Part 10 operational review which has already identify bypassed meters as an industry issue.  In the meantime Contact has incorporated outside business hours arrangements with smart meter providers to reduce the number of remotely disconnected meters being bypassed outside business hours.	Ongoing	

## 6.2 Responsibility for Metering at GIP (Clause 10.26 of Part 10)

*For each proposed metering installation or change to a metering installation that is a connection to the grid, the participant, must:*

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least three months for the grid owner to review and comment on the design*
- *respond within three business days of receipt to any request from the grid owner for additional details or changes to the design*
- *ensure any reasonable changes from the grid owner are carried out.*

*The participant responsible for the metering installation must:*

- *advise the reconciliation manager of the certification expiry date not later than 10 business days after certification of the metering installation*
- *become the MEP or contract with a person to be the MEP*
- *advise the reconciliation manager of the MEP identifier no later than 20 days after entering into a contract or assuming responsibility to be the MEP.*



### **Audit Observation**

The NSP table on the Authority's website was checked to confirm updates had occurred as required. Certification records were checked to confirm the correct dates were loaded.

### **Audit Commentary**

Contact is responsible for the GIPs shown in the table below.

Responsible party	Description	NSP	MEP	Certification expiry date (NSP table)
CTCT	CLYDE	CYD2201CTCTGG	ACCM	12-01-18
CTCT	OHAAKI	OKI2201CTCTGG	ACCM	10-11-17
CTCT	POIHIPI	PPI2201CTCTGG	ACCM	23-11-19
CTCT	ROXBURGH	ROX1101CTCTGG	ACCM	15-01-18
CTCT	ROXBURGH	ROX2201CTCTGG	ACCM	14-01-18
CTCT	STRATFORD	SFD2201CTCTGG	CTCT	03-09-17
CTCT	TE MIHI	THI2201CTCTGG	ACCM	30-09-18
CTCT	WHIRINAKI	WRK2201CTCTGG	ACCM	19-10-19
CTCT	WAIRAKEI	WRK2201CTCTGG	ACCM	30-10-17

All grid connection points have current certification recorded on the network supply point (NSP) table where CTCT is recorded as the responsible party.

Contact has not had any new connections to the grid during the audit period.

There have not been any new or modified metering installations during the audit period.

## **6.3 Certification of Control Devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)**

*The reconciliation participant must advise the metering equipment provider if a control device is used to control load or switch meter registers.*

*The reconciliation participant must ensure the control device is certified prior to using it for reconciliation purposes.*

### **Audit Observation**

A registry list with history was reviewed for the audit period to confirm what profiles were being used by Contact. Then a check was conducted with the reconciliation team to identify ICPs with relevant profiles where control devices were not certified.

### **Audit Commentary**

Contact reported 19,821 ICPs where the registry contained a profile requiring a certified control device. In all cases, Contact submits consumption information using the RPS profile for these ICPs, but the registry is not changed to RPS. This is recorded as non-compliance in Section 3.5.

## 6.4 Reporting of Defective Metering Installations (Clause 10.43(2) and (3))

*If a participant becomes aware of an event or circumstance that lead it to believe a metering installation could be inaccurate, defective, or not fit for purpose they must:*

- advise the MEP
- include in the advice all relevant details.

### **Audit Observation**

Processes relating to defective metering were examined.

Examples of defective meters were reviewed, specifically those where bridging had occurred, and I checked whether the MEP had been notified.

### **Audit Commentary**

Contact has processes in place to report defective metering to MEPs and they were notified for the 10 examples checked.

## 6.5 Collection of Information by Certified Reconciliation Participant (Clause 2 of Schedule 15.2)

*A reconciliation participant must obtain raw meter data used to determine volume information from the services access interface. Except when only the Metering Equipment Provider can electronically interrogate a metering installation for which it is responsible and they have an arrangement with the reconciliation participant which prevents them from interrogating the metering installation themselves.*

### **Audit Observation**

The data collection process was examined. A sample of five meter reads per agent, and MEP, were checked using the typical case sample methodology.

### **Audit Commentary**

All information used to determine volume is collected by Contact, or one of their agents. Agent reports are attached as appendices.

A sample of five readings each for AMS (HHR and AMI), EDMI, Smartco, Metrix and Arc, were traced from the source reading files to Contact's systems. Compliance is confirmed.

## 6.6 Derivation of Meter Readings (Clause 3(1), 3(2) and 5 Schedule 15.2)

*All meter readings must in accordance with the participants certified processes and procedures and using its certified facilities be sourced directly from raw meter data and, if appropriate, be derived and calculated from financial records.*

*All validated meter readings must be derived from meter readings.*

*A meter reading provided by a consumer may be used as a validated meter reading only if another set of validated meter readings not provided by the consumer are used during the validation process.*

*During the manual interrogation of each NHH metering installation the reconciliation participant must:*

- (a) obtain the meter register*
- (b) ensure seals are present and intact*
- (c) check for phase failure (if supported by the meter)*
- (d) check for signs of tampering and damage*
- (e) check for electrically unsafe situations*

*if the relevant parts of the metering installation are visible and it is safe to do so.*

### **Audit Observation**

The data collection process was examined. A sample of five meter reads per MEP, seven meter reads for Wells, and five meter reads for Datacol were checked from the read file to SAP using the typical case sample methodology.

Processes for customer reads were reviewed.

### **Audit Commentary**

A sample of at least five reads received from each agent and MEP were compared with records contained in SAP, including manual and AMI readings. In all cases, the readings matched and were labelled correctly. Some data from agent's systems was compared to that in SAP and a "match" was found in all cases.

During manual interrogation, the meter register value is collected and entered into a hand held device. This reading enters Contact's SAP system and is labelled as a reading, which denotes that it is a meter reading collected and validated, by a meter reader.

I saw evidence of checks completed by Wells and Datacol to:

- obtain the meter register
- ensure seals are present and intact; and
- check for signs of tampering and damage.

I reviewed a sample of read files and confirmed that the meter register number is included.

I reviewed four examples of broken seals and suspected tampering:

- in two cases a job was completed to check and reseal the meter
- two cases from March and April 2017 (0000360966ENF3D and 0000060093CPB0A) are being investigated by the revenue assurance team

Audits of the meter reading agents found that Wells and Delta have processes in place to identify and record phase failure but Datacol does not have a process in place.

Non-compliance	Description		
<b>With:</b> Clause 5 of schedule 15.2  <b>From/to:</b> 01/07/16 to 30/06/17	Phase failure monitoring not in place for all regions. <b>Potential impact:</b> Medium <b>Actual impact:</b> Low <b>Audit history:</b> None <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	The controls are rated as moderate because processes are in place for two of three agents. The impact on settlement is recorded as minor because there were not examples of phase failure found, therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action Status
As a meter reading agent Datacol provide services for a small number of embedded networks. Further the number of CT metered sites read by Datacol is extremely small.  Contact will initiate discussions with Datacol to identify and return the relevant information back to Contact via a Meter Condition Code in its Meter Read Files for Broken/Missing Seals and also identify and return the relevant information back to Contact via a Meter Condition Code in its Meter Read Files for Phase Failure and then for the code to be interrogated accordingly and passed to a back office team to investigate further			Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
		Ongoing	

Customer reads are provided in the meter reader notes fields by Wells and Datacol, and treated as a “no read”. An estimate read is entered by Contact.

## 6.7 NHH Meter Reading Application (Clause 6 of Schedule 15.2)

*For NHH switch event meter reads, for the gaining trader the reading applies from 0000 hours on the day of the relevant event date and for the losing trader at 2400 hours at the end of the day before the relevant event date.*

*In all other cases, All NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.*

### **Audit Observation**

The process of the application of meter readings was examined.

An event detail report for the audit period was reviewed, to identify CS files issued by Contact during the audit period. A sample of five CS files containing actual reads were reviewed to determine whether the data provided was complete and accurate.

### **Audit Commentary**

All NHH readings apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation except in the case of a switch event meter reading which applies to the end of the day prior to the event date for the losing trader and the start of the event date for the gaining trader as required by this clause. Application time of reads was also checked in relation to historic estimate calculations in section 12.11. Compliance is confirmed.

I checked the process for NHH to HHR meter changes in relation to this clause. The industry has adopted a process that achieves accuracy in relation to submission information and ICP days, but compliance with this clause does not appear to be possible. The process is to “remove” the NHH meter from the registry and from relevant databases on the day before the meter change, and then the ICP becomes HHR all day on the day of the meter change, with the trading periods up until the meter change being populated with zeros. Both a NHH and HHR meter cannot be “present” on the same day in most databases and the registry will not allow two MEPs on the same day. This is raised as an issue for the Authority to resolve.

Issue	Description
Regarding: Clause 6 of schedule 15.2	NHH readings apply to the end of the previous day for NHH to HHR meter changes to ensure accuracy of submission and ICP days files.

## **6.8 Interrogate Meters Once (Clauses 7(1) & (2) of Schedule 15.2)**

*A validated meter reading must be obtained in respect of every meter register for every non half hour metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant, unless exceptional circumstances prevent this from occurring. This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.*

*The NHH meter reading frequency guidelines published by the Electricity Authority define “Exceptional circumstances” as meaning “circumstances in which access to the relevant meter is not achieved despite the reconciliation participant’s best endeavours”. “Best endeavours” is defined as “Where a reconciliation participant failed to interrogate an ICP as a result of access issues, the reconciliation participant had made a minimum of three attempts to contact the customer, by using at least two methods of communication”.*

### **Audit Observation**

The process to manage missed reads was examined. The Automated Meter Reading Compliance (MRC) Process documentation was reviewed.

Contact provided a list of ICPs not read during the period of supply. The extreme case sampling method was used to select the ten ICPs with the longest period of supply which were unread.

### **Audit Commentary**

A validated meter reading must be obtained in respect of every meter register for every non half hour metered ICP for which the participant is responsible, at least once during the period of supply to the ICP by the reconciliation participant, unless exceptional circumstances prevent this from occurring. This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

The process to manage missed reads was examined.

AMI reads are managed in the SmartReads Management Console. The SmartReads Management Console records the percentage of reads attained in each file. If the percentage is less than 100%, the file is held for three days prior to being imported, in case further reads are recovered on subsequent interrogations. After three days or when 100% of reads are obtained, whichever is sooner, the file is imported into SAP and any missing reads are estimated. If a whole file is missing, the field services team receives an email notification so that it can be followed up.

For all NHH non AMI reads, the Automated Meter Reading Compliance (MRC) Process applies. This is discussed further in section 6.9. The process begins 130 days after an estimated read is entered, so ICPs supplied for shorter periods do not usually have any action taken, and the best endeavours requirement is unlikely to be achieved. Non-compliance is recorded below.

Contact provided a list of 50 ICPs not read during the period of supply as at April 2017. This was analysed:

- the average time supplied by Contact was 130 days, and the median time supplied by Contact was 33.5 days
- 22 (44%) of the unread ICPs had been supplied by Contact for 30 days or less
- two of the ICPs had been with Contact for more than a year and the best endeavours were not met for these ICPs.

Non-compliance	Description
<b>With:</b> Clauses 7(1) & (2) of schedule 15.2  <b>From/to:</b> 01/07/16 to 30/06/17	The requirement to use best endeavours to obtain a read for all ICPs not read during the period of supply was not met. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2
Audit Risk Rating	Rationale for audit risk rating
Low	Most ICPs unread during the period of supply were supplied for a relatively short period.

Actions taken to resolve the issue	Completion date	Remedial action Status
<p>Due to the relatively short period of time we get to complete a switch (5 - 10 days) it becomes difficult to obtain a read within such a short period of time. This is especially true for sites that have already got access issues.</p> <p>We will look further at our high priority final read process to see where further improvements can be made.</p> <p>However a count of 50 ICPs where this requirement was not met and of these 22 were with Contact for less than 30 days indicates our overall performance is strong given the switching volumes Contact has experienced.</p>	Ongoing	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	

## 6.9 NHH Meters Interrogated Annually (Clauses 8(1) & (2) of Schedule 15.2)

*At least once every 12 months, each reconciliation participant must obtain a validated meter reading for every meter register for non-half hour metered ICPs, at which the reconciliation participant trades continuously for each 12 month period.*

*If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 8(1).*

### **Audit Observation**

The process to manage missed reads was examined. The Automated Meter Reading Compliance (MRC) Process documentation was reviewed.

Contact provided a list of ICPs not read during the past 12 months. The extreme case sampling method was used to select the ten ICPs with the longest time unread.

### **Audit Commentary**

At least once every 12 months, a validated meter reading must be obtained for every meter register for NHH metered ICPs, at which Contact supplies continuously for each 12 month period, and other than those ICPs for which exceptional circumstances prevent such an interrogation.

Documentation on the Automated Meter Reading Compliance (MRC) Process was provided. The process is:

- Process initiation occurs on the day an estimated reading is entered
- Letter 1 is sent if the process is still active after 130 days
- Letter 2 is sent if the process is still active 70 days after letter 1 was issued

- Request a high priority (out of cycle) meter reading if the process is still active 70 days after letter 2 is issued
- A Business Progress Exception Management event (BPEM) is raised if the process is still active 60 days after the high priority read is requested. Manual intervention is required to attempt to gain a read, and enter a permanent estimate if an actual reading cannot be obtained.

The MRC process is terminated when the customer switches out, or an actual reading was received. Prior to 11/04/17 the process was incorrectly terminating where a customer read was received. I saw evidence of testing and approval to move the process change into production. A sample of 10 ICPs not read during the previous year were investigated, and I found that the best endeavours requirement was not met for three of them, largely due to the historic defect in the MRC process terminating the process early. This is recorded as non-compliance.

ICPs are excluded from the meter reading compliance process if they are vacant disconnected, the meter is AMI capable, or they are currently on a meter reader exclusion list (e.g. currently in a dummy route or health and safety issues are present).

In addition to the MRC process, Contact monitors the meter read frequency reports provided to the Electricity Authority. Contact has put considerable effort into obtaining reads for difficult to read sites, including attempting after hours contact and reading, and investigating upgrades to AMI metering. Contact provided a set of meter reading frequency reports, which show the level of compliance with clauses 8(1) & (2) of schedule 15.2. A summary is shown below:

Month	1yr ICP Count	1yr # Read	1yr # Not Read	1yr Read Rate	1yr Reads Required to Reach Target
Sep-16	352,770	350,314	2,456	99%	2,456
Oct-16	352,192	349,863	2,329	99%	2,329
Nov-16	351,739	349,441	2,298	99%	2,298
Dec-16	351,712	349,512	2,200	99%	2,200
Jan-17	351,934	349,746	2,188	99%	2,188
Feb-17	351,622	349,408	2,214	99%	2,214
Mar-17	351,802	349,670	2,132	99%	2,132

Some potential report accuracy issues with the ICP level read attainment reporting were identified, and require further investigation:

- The read compliance reports appear to be based on the actual reads received, rather than the actual reads loaded in SAP. Each read must be entered against a valid read request. Where an estimated read is entered against the request prior to the actual being received, the actual read is not entered unless it is sufficiently different to require the invoice to be reversed and rebilled.
- Where an ICP switches out and back in, the report is including the switched out period in the period of supply. For example, ICP 0000030230DE03A was supplied 01/04/1999-04/06/15



and 21/04/17 onwards. The last actual read on the detailed report shows 17/05/15 - before the most recent start date.

- Prepay meters are not included in the report.

Recommendation	Description	Audited party comment	Remedial action
<b>Regarding:</b> Clause 8(1) & (2) of Schedule 15.2	<p>Review the meter read compliance reports to confirm whether</p> <ul style="list-style-type: none"> <li>- They are based on actual reads loaded in SAP. The report should include any actual read used for reconciliation.</li> <li>- Period of supply includes periods where ICPs were switched out or inactive. It should only include periods where the ICP is continuously active.</li> </ul>		Investigating

Non-compliance	Description		
<p><b>With:</b> Clauses 8(1) &amp; (2) of schedule 15.2</p> <p><b>From/to:</b> 01/07/16 to 30/06/17</p>	<p>The requirement to use best endeavours to obtain a read for all ICPs annually was not met for 3 of 10 ICPs sampled.</p> <p>NHH pre-pay meters not included in the reporting to the authority.</p> <p><b>Potential impact:</b> Low</p> <p><b>Actual impact:</b> Low</p> <p><b>Audit history:</b> Once</p> <p><b>Controls:</b> Moderate</p> <p><b>Breach Risk Rating:</b> 2</p>		
Audit Risk Rating	Rationale for audit risk rating		
Low	<p>The best endeavours requirement was not met primarily due to a defect in the MRC process, which has now been resolved.</p> <p>Prepay meters normally receive regular readings, so that credit can be managed.</p> <p>The impact on settlement is minor, therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action Status
The changes to the automated meter reading Compliance (MRC) process will take time to fully work through the process. We expect improvements to this process will be fully realised over the next year.		Ongoing	Identified
Contact has raised an internal change request to adjust its systems to include Pre- Paid meters into its meter reading systems. This is a large change system for Contact to undertake due to Contact currently using vend derived reads for its settlement and reconciliation purposes.			
Preventative actions taken to ensure no further issues will occur		Completion date	

Contact is looking at moving to read pre-Pay meters as part of its normal read rounds – system changes are required to make this happen - a systems change request has been raised to address this issue	TBA	
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## 6.10 NHH Meters 90% Read Rate (Clauses 9(1) & (2) of Schedule 15.2)

*In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each four months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every four months for 90% of the non-half hour ICPs.*

*A report is to be sent to the market administrator providing the percentage, in relation to each NSP, for which consumption information has been collected no later than 20 business days after the end of each month.*

*If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 9(1).*

### **Audit Observation**

The process to manage missed reads was examined. The Automated Meter Reading Compliance (MRC) Process documentation was reviewed.

Contact provided a list of ICPs not read during the past four months. The typical case method was used to select ten ICPs.

### **Audit Commentary**

This clause requires that a validated meter reading be obtained once every four months for 90% of ICPs per NSP, unless exceptional circumstances prevent this from occurring.

Contact provided a set of meter reading frequency, which show the level of compliance with clauses 8(1) & (2) of schedule 15.2. A summary is shown below:

Month	4mth ICP Count	4mth # Read	4mth # Not Read	4mth Read Rate	4mth Reads Required to Reach Target
Sep-16	395,387	388,804	6,583	98%	16
Oct-16	396,396	389,691	6,705	98%	115
Nov-16	397,058	390,707	6,351	98%	2
Dec-16	397,869	391,710	6,159	98%	15
Jan-17	398,816	392,746	6,070	98%	3
Feb-17	398,450	392,225	6,225	98%	10

As noted in Section 6.8 above, the MRC process begins 130 days after an estimated read is entered, therefore exceptional circumstances could not be proved for the ICPs not read at four months. This is recorded as non-compliance.

Non-compliance	Description		
<b>With:</b> Clauses 9 of schedule 15.2  <b>From/to:</b> 01/07/16 to 30/06/17	The requirement to use best endeavours to obtain a read for 90% of ICPs every four months was not met. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Three times previously <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	Where NSPs have a small numbers of ICPs supplied, the best endeavours requirement will not be met primarily due to the late start of the MRC process. This impacts a small number of ICPs.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact accepts the non-compliance and will work with its meter reading service providers to see how we can address this issue going forward		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact recognises that a significant number of the NSPs identified as being noncompliance are associated with embedded networks where access to meter rooms can be problematic. Contact is encouraging distributors for all new embedded networks to ensure that fully functioning AML meters are installed and certified prior to the creation of new embedded networks.  Contact is also reviewing the meter read frequency for NSP's with a small number of ICPs where read attainment is below 90% to increase the opportunities to retrieve a meter read.		Ongoing	

## 6.11 NHH Meter Interrogation Log (Clause 10 Schedule 15.2)

*The following information must be logged as the result of each interrogation of the NHH metering:*

*10(a) - the means to establish the identity of the individual meter reader*

*10(b) - the ICP identifier of the ICP, and the meter and register identification*

*10(c) - the method being used for the interrogation and the device ID of equipment being used for interrogation of the meter*

*10(d) - the date and time of the meter interrogation.*

### **Audit Observation**

NHH data is collected by AMS, Smartco, Metrix, Arc, Wells and Datacol. The data collection processes were reviewed as part of their MEP and agent audits.

A sample of five readings each for AMS, EDMI, Smartco, Metrix and Arc, were traced from the source reading files to Contact's systems including review of the content of the files provided.

### **Audit Commentary**

Compliance with this clause has been demonstrated by all agents and is discussed in their audit reports, which are attached as appendices.

The content of the meter interrogation logs meets the requirements of this clause. Compliance is confirmed.

## **6.12 HHR Data Collection (Clause 11(1) of Schedule 15.2)**

*Raw meter data from all electronically interrogated metering installations must be obtained via the services access interface. This may be carried out by a portable device or remotely.*

### **Audit Observation**

HHR data is collected by AMS, AMCI, EDM and EMS. I traced volumes from source files through to reconciliation submissions for five ICPs for March 2017. The data collection processes were reviewed as part of their MEP and agent audits.

Processes to provide HHR generation information were reviewed. I traced volumes through Oracle, MV090 and SAP for one meter. This process is automated so a small sample is considered appropriate.

### **Audit Commentary**

This clause requires that data from all half hour metering must be obtained by electronic interrogation of meters or data loggers. The clause also allows manual data collection to occur. These processes were reviewed as part of the MEP and agent audits.

Back-up meters are installed at every generation installation, which eliminates the requirement for manual data interrogation, and processes have therefore not been established for this activity. The backup meters are off the same measuring transformers. There are also backup Scada installations with separate CTs, VTs and meters.

Compliance is confirmed for HHR data collection.

## **6.13 HHR Interrogation Data Requirement (Clause 11(2) of Schedule 15.2)**

*The following information is collected during each interrogation of HHR metering:*

- *the unique identifier (device ID) of the meter or data logger;*
- *the connection time, disconnection time and recorder time;*
- *the half-hour metering information for each trading period;*
- *events log.*

*The interrogation log must be examined by the reconciliation participant responsible for collecting the data and appropriate action must be taken if problems are apparent or an automated software function flags exceptions.*

### **Audit Observation**

Data interrogation requirements were reviewed as part of the MEP and agent audits.

Interrogation logs for generation station metering were reviewed.

### **Audit Commentary**

#### **Generation data**

The following information is collected during each automated interrogation of HHR generation metering:

- the unique identifier (Serial no) of the meter or data logger
- the connection time, disconnection time and recorder time
- the half-hour metering information for each trading period
- events log.

The list of events includes the following:

- hardware errors
- firmware errors
- ROM and RAM memory errors
- power supply events
- programming events
- programming errors
- EEPROM and cartridge messages
- status input monitoring
- control relay states
- time and clock messages
- interval value monitoring.

Event log information is provided to the appropriate generation station for review. If any actions are required the instruction will be provided by station personnel as required.

#### **HHR data**

Data interrogation requirements are covered in the MEP and agent audits.

Manual data collection processes were also examined and compliance is confirmed. In the previous audit, non-compliance was recorded because event logs were not provided by EDM I where data was collected manually. This issue has now been cleared, event logs and clock synchronisation information were confirmed to be provided to EDM I and passed on to their customers during the EDM I audit.

## 6.14 HHR interrogation log requirements (Clause 11(3) Schedule 15.2)

*The interrogation log forms part of the interrogation audit trail and, as a minimum, must contain the following information:*

*11(3)(a) - the date of interrogation*

*11(3)(b) - the time of commencement of interrogation*

*11(3)(c) - the operator identification (if available)*

*11(3)(d) - the unique identifier of the meter or data storage device*

*11(3)(e) - the clock errors outside the range specified in Table 1 of clause 2*

*11(3)(f) - the method of interrogation*

*11(3)(g) - the identifier of the reading device used for interrogation (if applicable).*

### **Audit Observation**

A walkthrough of the HHR data collection function was performed to confirm compliance.

Agents and MEPs are responsible for meeting the meter interrogation log requirements, and this is reviewed as part of their own audits.

### **Audit Commentary**

#### **Generation Data**

For generation metering an interrogation log is generated to record details of all interrogations and the audit confirmed that appropriate action is taken where problems are apparent. The interrogation log contains the following information:

- the date of interrogation
- the time of commencement of interrogation
- the operator identification (for non-scheduled data collection)
- the unique identifier of the meter or data logger
- the clock errors outside the range specified in clause 12
- the method of interrogation.

#### **HHR data**

All agents demonstrated compliance with this clause.

## 7. Storing raw meter data

### 7.1 Trading period duration (Clause 13 Schedule 15.2)

*The trading period duration, normally 30 minutes, must be within  $\pm 0.1\%$  ( $\pm 2$  seconds).*

#### **Audit Observation**

A sample of interrogation logs for each agent providing HHR data were checked, to ensure that trading periods are 30 minutes in duration.

Data processes for agents were reviewed as part of their agent audits. These reports are attached as appendices.

#### **Audit Commentary**

Trading period duration is 30 minutes. Compliance is confirmed.

### 7.2 Archiving and storage of raw meter data (Clause 18 Schedule 15.2)

*A reconciliation participant who is responsible for interrogating a metering installation must archive all raw meter data and any changes to the raw meter data for at least 48 months, in accordance with clause 8(6) of Schedule 10.6.*

*Procedures must be in place to ensure that raw meter data cannot be accessed by unauthorised personnel.*

*Meter readings cannot be modified without an audit trail being created.*

#### **Audit Observation**

Processes to archive and store raw meter data were reviewed.

#### **Audit Commentary**

Compliance with this clause has been demonstrated by all agents.

#### **HHR data**

Contact operates a portal for electronic readings. Meter data providers log into the portal using an ID and password, and the portal contains a full audit trail compliant with the requirements of the code.

Data is imported from the portal into HDM. The transaction IDs used are the same as are used by the portal, so data can be tracked between the systems.

HHR information is retained for more than 48 months in HDM. I observed the process to enter and correct data, and confirmed that data cannot be modified without an audit trail being created. Compliance is confirmed.

### **Generation data**

Generation data is retained for more than 48 months. I observed the process to enter and correct data, and confirmed that data cannot be modified without an audit trail being created. Compliance is confirmed.

### **AMI and meter reader data**

Reading files are transferred from agents to Contact via SFTP, which is considered a secure method. I saw evidence of SFTP logs to confirm the files are transferred securely.

A sample of 24 readings received from Contact's agents and MEPs were compared to information contained in SAP, and the readings were the same, confirming the security of this process. Compliance is confirmed.

I observed the process to enter and correct data, and confirmed that data cannot be modified without an audit trail being created. Compliance is confirmed.

## **7.3 Non Metering Information Collected / Archived (Clause 21(5) Schedule 15.2)**

*All relevant non-metering information, such as external control equipment operation logs, used in the determination of profile data must be collected, and archived in accordance with clause 18.*

### **Audit Observation**

Processes to record non-metering information were reviewed.

### **Audit Commentary**

The main non-metering information is on/off time logs for distributed unmetered load and SCADA records supporting on/off times for NHH profiles. This data is received in a password protected email and loaded into SAP to create interval profiles. The data is stored securely and is retained indefinitely. I confirmed data was available from at least 2013 to confirm compliance.

## **7.4 Data Storage Device Clock Synchronisation (Clause 2(5)&(6) of Schedule 15.2)**

*When electronically interrogating the meter the participant must ensure that the clock is synchronised and correct the clock and raw data where necessary.*

### **Audit Observation**

Clock synchronisation processes for agents were reviewed as part of their agent audits. These reports are attached as appendices.

Agents are to advise Contact of clock synchronisation discrepancies and adjustments. I reviewed a sample of ten notifications, confirming that these notifications are being received and actioned by Contact.



## Audit Commentary

### HHR and AMI

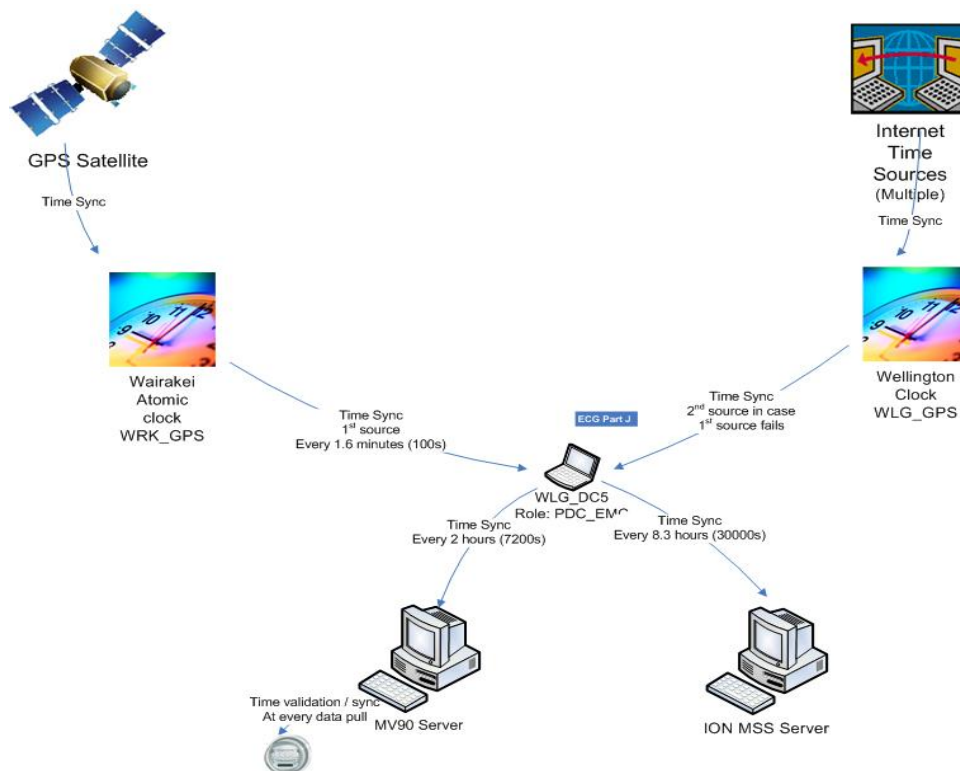
Agents and MEPs monitor clock synchronisation, this is covered as part of their audits.

I saw five examples of clock synchronisation reports each for AMS and EDMI. In all cases reviewed, no corrective action was required by Contact.

An issue was raised in the previous audit that when HHR data is collected manually by Metrix or FCLM and supplied to EDMI as an agent to Contact, the event logs are not provided and clocks are not synchronised. This non-compliance has now been cleared. Clock synchronisation data is now provided for manual reads, this was checked during EDMI's audit.

### Generation

The diagram below shows Contact's timekeeping process for generation metering.



As shown above the MV90 server is synchronised every two hours and prior to the commencement of any interrogation. WLG-DC5 time is manually checked on a periodic basis and this event is recorded.

During interrogation, a comparison occurs between data logger and MV90 clocks. MV90 is set to automatically synchronise all data logger clocks where time errors are less than or equal to five seconds. Where time errors exist which are greater than five seconds, but less than or equal to 60 seconds, the error is recorded in the events log and this event is noted as a "failed task". A time synchronisation is still performed automatically and the data is accepted as it is considered by Contact that the data has not been "affected" by the time error. If the time error is greater than 60

seconds, then the data is downloaded; however the time is not synchronised and the data is deemed “invalid”. An investigation then occurs which may result in data correction. Compliance is confirmed.

## 8. Creating and managing (including validating, estimating, storing, correcting and archiving) volume information

### 8.1 Correction of NHH meter readings (Clause 19(1) Schedule 15.2)

*If errors are detected during validation of non-half hour meter readings, one of the following must be undertaken:*

- confirmation of the original meter reading by carrying out another meter reading*
- replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date)*
- if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted and the estimated reading is marked as an estimate and it is subsequently replaced in accordance with clause 4(2).*

#### **Audit Observation**

Processes for correction of NHH meter readings were reviewed. Examples of five corrections for stopped meters, two incorrect multipliers and five bridged meters were reviewed. This included checking that updated consumption data flowed through to revision reconciliation submissions.

#### **Audit Commentary**

Where errors are detected during validation of non-half hour meter readings, then firstly a check reading is performed. If an original meter reading cannot be confirmed by a check reading then an estimated reading is used and is labelled as an estimate in SAP.

A spreadsheet template is used to estimate consumption in situations where meters are determined to be recording incorrectly, or are stopped. The template uses historic consumption where it is available and future consumption from check reads where historic consumption is not available. This activity is conducted by a limited number of experienced staff to ensure accuracy and consistency. Once estimation is complete a “reverse and rebill” is conducted in SAP or the faulty meter is removed with an estimated reading based on the consumption from the estimation template.

Correction occurs within the 14 month period if the loss event is for a period longer than 14 months. This means all consumption is accounted for, even if the loss period is longer than 14 months.

If the customer is not billed for the entire amount of the loss, this correction is made with a credit note, not by adjusting consumption. The calculations appeared to be correct and the consumption figures flow correctly through to submission files for all examples checked. Compliance is confirmed.

There is sometimes a delay in reporting consumption which has occurred while the ICP was meant to be disconnected. The status of the ICP must be corrected back to active before the consumption will be reported. Contact maintains a report of inactive sites with consumption, which is refreshed every two months. Each ICP is investigated prior to being corrected to determine whether it is genuine

consumption or a meter reading error. In some cases an IT job must be raised to ensure consumption is reported correctly, which can cause further delays. Compliance is confirmed.

## 8.2 Correction of HHR metering information (Clause 19(2) Schedule 15.2)

*If errors are detected during validation of half hour metering information the correction must be as follows:*

- if a check meter or data storage device is installed at the metering installation, data from this source may be substituted*
- in the absence of any check meter or data storage device, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on the meter, if available, and the pattern of consumption is considered materially similar to the period in error.*

### **Audit Observation**

Processes for correction of HHR meter readings were reviewed.

Five HHR corrections were reviewed. This included checking that updated consumption data flowed through to revision reconciliation submissions.

Two generation corrections were reviewed.

### **Audit Commentary**

#### **HHR Data**

Compliance with this clause is confirmed in the agents audit reports attached as appendices. There are instances when data is corrected based on information provided by agents. When this occurs an error correction journal is created which contains:

- date
- time
- operator ID
- data Corrected
- technique used
- reason for alteration.

In all cases, the original data is still available.

Five correction examples were examined during the audit and in all cases the correction was made accurately, and with an appropriate audit trail.

#### **Generation data**

Where errors are detected during validation of half-hour generation metering information the first course of action is to use data from back-up metering that is installed at all metering installations. In the unlikely event that back-up data is not available, estimation is performed using SCADA data. Corrections are made by the "ICT-AMS" team based on instructions from generation station staff.

In all cases a “Revenue metering error correction journal” is created which notes the following:

- date
- time
- operator ID
- data Corrected
- technique used
- reason for alteration.

I checked two generation data correction examples, and found the corrections were accurate and compliant journals were created. These generation data corrections are discussed further in section 10.2.

Compliance is confirmed.

### 8.3 Error and Loss Compensation Arrangements (Clause 19(3) Schedule 15.2)

*If error compensation and loss compensation are carried out as part of the process of determining accurate data, the compensation process must be documented and must comply with audit trail requirements.*

#### **Audit Observation**

Error and loss compensation was discussed, and processes in place reviewed.

#### **Audit Commentary**

Contact does not deal with any loss and compensation arrangements. If a compensation arrangement was in place, this would be identified through the load check process employed at the time of certification or recertification. Compliance is confirmed.

### 8.4 Correction of HHR and NHH Raw Meter Data (Clause 22(1) And (2) Schedule 15.2)

*In correcting a meter reading in accordance with clause 19, the raw meter data must not be overwritten. If the raw meter data and the meter readings are the same, an automatic secure backup of the affected data must be made and archived by the processing or data correction application. If data is corrected or altered, a journal must be generated and archived with the raw meter data file. The journal must contain the following:*

*22(2)(a) - the date of the correction or alteration*

*22(2)(b) - the time of the correction or alteration*

*22(2)(c) - the operator identifier of the reconciliation participant*

*22(2)(d) - the half-hour metering data or the non-half hour metering data corrected or altered, and the total difference in volume of such corrected or altered data*

*22(2)(e) - the technique used to arrive at the corrected data*

*22(2)(f) - the reason for the correction or alteration.*

### **Audit Observation**

The correction process was reviewed. A sample of corrections were reviewed in sections 8.1 and 8.2, which confirmed that raw meter data is not overwritten as part of the correction process.

Raw meter data retention for agents was reviewed as part of their agent audits. These reports are attached as appendices.

I checked that journals are created if meter reading data is corrected or altered.

### **Audit Commentary**

Compliance is confirmed, as discussed in sections 8.1 and 8.2.

## **9. Estimating and Validating Volume Information**

### **9.1 Identification of Readings (Clause 3(3) Schedule 15.2)**

*All estimated readings and permanent estimates must be clearly identified as an estimate at source and in any exchange of metering data or volume information between participants.*

### **Audit Observation**

Provision of estimated reads to other participants during switching was reviewed in sections 4.3, 4.4, 4.10 and 4.11.

Creation of estimated reads for corrections is discussed in sections 8.1 and 8.2.

Estimate and permanent estimate reads were checked to confirm they were correctly identified.

### **Audit Commentary**

All meter readings reviewed during the audit were correctly identified as actual, estimated or permanent estimates. Compliance is confirmed.

### **9.2 Derivation of Volume Information (Clause 3(4) Schedule 15.2)**

*Volume information must be directly derived, in accordance with Schedule 15.2, from:*

*3(4)(a) - validated meter readings*

*3(4)(b) - estimated readings*

*3(4)(c) - permanent estimates.*

### **Audit Observation**

Consumption for a sample of 24 NHH and five HHR ICPs was reviewed to ensure that it is calculated based on validated meter readings, estimated readings and permanent estimates as appropriate.

### **Audit Commentary**

Volume information is directly derived from validated meter readings. estimates or permanent estimates. Compliance is confirmed.

## **9.3 Meter Data Used to Derive Volume Information (Clause 3(5) Schedule 15.2)**

*All raw meter data that is used to derive volume information must not be rounded or truncated from the stored data from the metering installation.*

### **Audit Observation**

Meter reading data was traced from the source files to SAP for each MEP and agent, to determine whether the data is rounded or truncated.

### **Audit Commentary**

For generation data I traced a sample of reads from MV90 to SAP for one day and confirmed that reading data is not rounded or truncated. HHR meter data is not rounded or truncated.

Manual meter readings do not record decimal places, and are not rounded or truncated on import into SAP. AMI data is truncated on import into SAP, readings are recorded to 0 decimal places, but the raw meter data is not truncated. Compliance is confirmed.

## **9.4 Half Hour Estimates (Clause 15 Schedule 15.2)**

*If a reconciliation participant is unable to interrogate an electronically interrogated metering installation before the deadline for providing submission information, the submission to the reconciliation manager must be the reconciliation participant's best estimate of the quantity of electricity that was purchased or sold in each trading period during any applicable consumption period for that metering installation.*

*The reconciliation participant must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.*

### **Audit Observation**

The process to create HHR estimates for customer ICPs was reviewed. A sample of five HHR estimates were reviewed, to ensure that the best estimate of consumption provided, and are accurate within 10%.

Estimates for generation stations are fairly rare due to the high degree of metering accuracy and use of check metering as described in section 9.6. A sample of two estimates was reviewed.

### **Audit Commentary**

#### **HHR data**

Contact's HDM system will automatically create an estimate in situations where data is temporarily not available. This estimate is based on historic data and this process is considered compliant with the requirement to use "reasonable endeavours" to ensure the estimated data is accurate to within 10%.

Five estimates were checked. Not all were accurate to within 10%, however as noted above the process passes the "best endeavours" test. There is a "peer review" of all estimates over 1,000 kWh. Compliance is confirmed.

#### **Generation data**

Estimates are fairly rare for generation metering. All estimates identified had zero volumes, and were mainly due to temporary communication failures, where data was later able to be retrieved.

A sample of two estimates was reviewed. I found that the estimates had associated journals supported by spreadsheets containing workings and checks, and audit trails which include the original and changed data, the reason for the change, user, date and time. The estimates were appropriately approved by Contact's Energy Reconciliation Manager, and replaced with actuals where they later became available.

- In the first example, data could not be retrieved in time for submission due to a telecommunications fault. Data was estimated as 0, because there was no generation at the time. Once the telecommunications error was resolved and the data retrieved, revised files were submitted.
- In the second example, Contact received instruction from Accucal to estimate using data from another meter due to meter maintenance on the primary meter.

Compliance is confirmed.

## **9.5 NHH Metering Information Data Validation (Clause 16 Schedule 15.2)**

*Each validity check of non-half hour meter readings and estimated readings must include the following:*

*16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register*

*16(2)(b) - checks for invalid dates and times*

*16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend*

*16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected zero values.*

#### **Audit Observation**

I reviewed system documentation confirming the meter reading validations configured in SAP.

I reviewed the NHH data validation process, including checking a sample of ICPs which failed data validations to confirm that exceptions are managed in a compliant manner.

### **Audit Commentary**

Data validation for NHH metering information occurs at multiple levels. Firstly, at the handheld level where a localised validation occurs to ensure the reading is within expected high/low parameters. This is described further in the agents' audit reports.

Agents are required to provide "condition code" information if any metering related issues are found in the field. Examples are stopped or damaged meters. A selection of condition codes from one of Contact's agents were examined in SAP and in all cases the matters were acted upon appropriately. A selection of meter reads from agents was also checked to prove the security of transmission arrangements, and in all cases, the meter readings matched those held in SAP.

The second level of validation occurs when the data reaches Contact. This validation looks for obvious file errors or file corruption and invalid metering information. Contact provided a copy of the process documentation for this activity. Business Process Exception Management is used to manage workflow. When exceptions are generated a notification is sent to the appropriate work queue within SAP. I reviewed examples of these work queues within SAP.

The final level of validation occurs during the "billing validation" process. This information is reviewed and actioned line by line. Any exceptions are investigated and resolved.

The validation settings fall into the following main categories:

- high consumption
- low consumption
- zero consumption
- negative consumption
- vacant consumption >0 units
- disconnected consumption >2 units
- short or long bill period.

In addition to these checks above, there are separate reports for the following issues that are monitored by the Revenue Assurance Team:

- long term zero consumption
- consumption on vacant premises
- consumption on disconnected vacant premises.

Contact has a weekly report containing ICPs with zero consumption. This is filtered to exclude ICPs where zero is expected (season tariffs or holiday homes etc.), then investigations occur for the remainder. Corrections to consumption are conducted in accordance with the process described in Section 8.1.

Contact provided a report of Pre Payment ICPs where a "vend" had not occurred for a three month period. This report is run quarterly and the most recent report for December 2016 contained 316



records. The results of this reporting are currently not being analysed due to resourcing constraints. I recommend this matter is resolved, because consumption could be occurring without being recorded.

Recommendation	Description	Audited party comment	Remedial action
<b>Regarding:</b> Clause 16 of schedule 15.2	Re-establish the management of pre-pay no vend examples.	Contact plans to re-establish the monitoring of the no vend report.	Identified

ICPs that are vacant and either active or de-energised are still included in the meter reading process. Submission occurs from readings and is not reliant on billing. I confirmed that vacant consumption is included in submission files by checking several examples. As mentioned in Section 8.1, consumption information is not being submitted for ICPs where the status is not "Active". The status needs to be changed to "Active" back to the estimated date the consumption commenced.

Contact compares their multipliers with those on the registry on a periodic basis to identify discrepancies. A contractor is sent to inspect all Category 2 ICPs that switch in. This is to check the integrity of the metering installation including potential fuses and multipliers. Compliance is confirmed.

## 9.6 Electronic Meter Readings and Estimated Readings (Clause 17 Schedule 15.2)

*Each validity check of electronically interrogated meter readings and estimate readings must be at a frequency that will allow a further interrogation of the data storage device before the data is overwritten within the data storage device and before this data can be used for any purpose under the Code.*

*Each validity check of a meter reading obtained by electronic interrogation or an estimated reading must include:*

*17(4)(a) - checks for missing data*

*17(4)(b) - checks for invalid dates and times*

*17(4)(c) - checks of unexpected zero values*

*17(4)(d) - comparison with expected or previous flow patterns*

*17(4)(e) - comparisons of meter readings with data on any data storage device registers that are available*

*17(4)(f) - a review of meter and data storage device event list. Any event that could have affected the integrity of metering data must be investigated.*

### **Audit Observation**

I walked through the electronic data validation process, including checking a sample of ICPs for each validation to confirm that exceptions are managed in a compliant manner.

System documentation confirming exception parameters was reviewed.

## **Audit Commentary**

Contact receives electronic readings for generation station meters, half hour meters and AMI meters.

### **Generation data**

For generation station metering, interrogation occurs every half hour so there is little risk that data will be overwritten. The installed data loggers have a data storage capacity of at least 30 days, which provides an additional level of security in relation to this clause. Data is received hourly by the Oracle database, and updated in SAP four times daily. I saw evidence of these updates during the audit.

Contact's validation process is unique in that each metering installation contains primary metering and back-up metering, plus SCADA data. The SCADA system generally uses a separate set of CTs and its own VT.

This arrangement reduces the need for an "analysis" based data validation process; at the end of each month, Contact conducts a comparison between the "primary" data in MV90 and the SCADA data in Oracle. I observed this process. If there are any exceptions data from the primary meter, check meter and SCADA are compared to identify where the issue lies. This level of validation, in conjunction with a review of the event list, achieves compliance with the intent of this clause. Corrections to generation data are discussed in section 10.2.

### **HHR data**

A HHR load check occurs on switch in. This is discussed further in section 8.3.

On business day one of each month, data is received from MEPs and agents via a portal, and imported into HDM. The validation processes used by Contact's agents reviewed during their agent audits; these reports are attached as appendices.

A further level of validation occurs when data is uploaded into the HDM system, and exception reports are generated. These exceptions are reviewed, and action is taken to either approve or resolve any issues identified. The NEO graphing tool is used to chart HDM information to assist with analysis. I walked through the validation process, including reviewing historic exceptions.

The following checks are performed:

- File format errors.
- Consumption averages are inconsistent with the previous three months. These exceptions are investigated by reviewing historic consumption patterns using the NEO graphing tool, and asking the Account Manager to confirm the consumption with the customer. If there is a suspected meter accuracy issue, a field services job will be raised with the MEP.
- Consecutive zeros. If the consecutive zeros are consistent with the customer's previous consumption, they will pass validation. If consecutive zeros are unexpected, they will fail validation. I reviewed an example where an ICP suddenly dropped to zero during the month, and saw evidence of the Account Manager's correspondence with the customer, confirming that the site was closed, and zero consumption was expected.

- Data spikes in KVARH or kWh inconsistent with the previous month: either two instances where variance is more than 50%; four instances where variance is more than 30%; or seven instances where variance is more than 20%. Spikes are graphed and reviewed against surrounding data and each other to determine whether they are reasonable or further investigation is required.
- Insufficient data for validation. This check identifies sites with less than three months of consumption history available for checking. These ICPs are reviewed manually to determine whether consumption appears reasonable.
- All new connections, switch ins, upgrades, downgrades, meter reprograms and meter changes processed are independently checked by the HDM Team Leader or HDM Team Analyst. Sharepoint is used to track this approval and management process, and I saw evidence of the review process.

Overall, the level of validity checking is viewed as being of a high industry standard. Validations are split between the team, and there is good consultation between team members.

MV90 stores all meter event log information, and these logs are checked daily using a report which summarises the information from the event logs to allow more efficient review. I sighted event logs during the audit, and observed the process to review them, and action taken as a result of this review. Compliance is confirmed.

### **AMI**

The Code requires “...a review of meter and data storage device event log. Any event that could have affected the integrity of metering data must be investigated.”

Meter event detail reports are received from AMS and Smartco. Emails containing information on time synchronisation, faults and possible tampering events are sent by AMS, ARC and Metrix. These event emails are sent to the appropriate teams such as field services and revenue assurance for review and action. I saw examples of these emails and action taken as a result during the audit.

The event detail reports are loaded into the COLA database. Contact has recently developed processes to allow them to efficiently review the event detail information that they receive for critical events. Further enhancement is required in order to be fully compliant, especially with the evaluation of possible theft events. This is recorded as non-compliance.

Non-compliance	Description		
<p><b>With:</b> Clause 17 of schedule 15.2</p> <p><b>From/to:</b> 01/07/16 to 30/06/17</p>	<p>AMI event information is monitored but further enhancement is required in order to fully achieve compliance</p> <p><b>Potential impact:</b> Low</p> <p><b>Actual impact:</b> Low</p> <p><b>Audit history:</b> Multiple times</p> <p><b>Controls:</b> Moderate</p> <p><b>Breach Risk Rating:</b> 2</p>		
Audit Risk Rating	Rationale for audit risk rating		
Low	<p>The controls are moderate because critical events are being monitored. Enhancements are underway in order to be able to evaluate all events.</p> <p>The impact on settlement could be minor, therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action Status
<p>A proof of concept monitoring reporting for event logs was implemented in July 2017. This reporting is monitoring the significant events such as phase failure, Reverse rotation (generation sites where metering is not capable of measure export volumes) and clock synchronisation.</p> <p>Contact is trialling further combination of events to capture situations such as bypassed or stopped meters as well as fraud scenarios.</p>		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact plans to operationalise this event log monitoring as part of a wider system project which is expected to be completed by the end of the year.		Dec 2017	

## 10. Provision Of Metering Information to the Pricing Manager in Accordance With Subpart 4 Of Part 13 (Clause 15.38(1)(F))

Generation information is reported by EMS, as agent to Contact. Their report is attached as an appendix to this report.

### 10.1 Generators to Provide HHR Metering Information (Clause 13.136)

*Each generator must give the relevant grid owner half-hour metering information under clause 13.136 in relation to generating plant that is subject to a dispatch instruction—*

- (a) that injects electricity directly into a local network or an embedded network; or*
- (b) if the meter configuration is such that the electricity flows into a local network without first passing through a grid injection point or grid exit point metering installation.*

#### **Audit Observation**

Provision of HHR metering information is provided by EMS. Review of the EMS audit report confirmed that this process is managed in a compliant manner.

#### **Audit Commentary**

Generation is sent to EMS directly from SAP, according to a system schedule. EMS monitors to ensure that the data is received on time, and Contact staff also complete monitoring to ensure that all data is released prior to leaving for the day. Compliance is confirmed.

### 10.2 Unoffered & Intermittent Generation Provision of Metering Information (Clause 13.137)

*Each generator must give the relevant grid owner half-hour metering information for:*

- any unoffered generation from a generating station with a point of connection to the grid 13.137(1)(a)*
- any electricity supplied from an intermittent generating station with a point of connection to the grid 13.137(1)(b)*
- electricity supplied from a type B industrial co-generating station with a point of connection to the grid 13.137(1)(c).*

*To avoid doubt, each generator must give the relevant grid owner the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.*

*If the half-hour metering information is not available, the generator must give the relevant grid owner a reasonable estimate of such data.*

#### **Audit Observation**

This process is managed by EMS on behalf of Contact. Review of the EMS audit report confirmed that this process is managed in a compliant manner.

#### **Audit Commentary**

This process is managed by EMS on behalf of Contact. Review of the EMS audit report confirmed that this process is managed in a compliant manner.

### 10.3 Loss Adjustment of HHR Metering Information (Clause 13.138)

*The generator must provide the information required by clauses 13.136 and 13.137, 13.138(1)(a) - adjusted for losses (if any) relative to the grid injection point or, for embedded generators the grid exit point, at which it offered the electricity 13.138(1)(b) - in the manner and form that the pricing manager stipulates 13.138(1)(c) - by 0500 hours on a trading day for each trading period of the previous trading day. The generator must provide the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of the generator's volume information.*

#### **Audit Observation**

This process is managed by EMS on behalf of Contact. Review of the EMS audit report confirmed that this process is managed in a compliant manner.

#### **Audit Commentary**

EMS manage this process for Contact, their agent audit report is attached as an appendix.

In most instances, EMS collects the data as an agent for generators. Interrogation begins at midnight and is complete before 0500 on each day. Some data is provided by the generator to EMS and this data was provided by 0430 for a selection of days checked.

Any loss adjustment relative to the grid injection point is normally made within the metering installation at the time of installation and commissioning.

Compliance is confirmed.

### 10.4 Notification of The Provision of HHR Metering Information (Clause 13.140)

*If the generator provides half-hourly metering information to the grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.*

#### **Audit Observation**

This process is managed by EMS on behalf of Contact. Review of the EMS audit report confirmed that this process is managed in a compliant manner.

#### **Audit Commentary**

EMS is the agent to the grid owner and they have the data by 0500, therefore notification is not required.

Contact receives an email when data sent to EMS has failed or needs to be estimated. I saw evidence of this process working, and noted a manual email was also received from EMS requesting

data to be re-uploaded, after a batch failed over a weekend while system maintenance was taking place. I saw evidence that the missing data was resent. Compliance is confirmed.

## 11. Provision of Submission Information for Reconciliation

### 11.1 Buying and Selling Notifications (Clause 15.3)

*Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must notify the reconciliation manager if it is to commence or cease trading electricity at a point of connection using a profile with a profile code other than HHR, RPS, UML, EG1, or PV1 at least five business days before commencing or ceasing trader.*

*The notification must comply with any procedures or requirements specified by the reconciliation manager.*

#### **Audit Observation**

A registry list was examined, to identify profiles used by Contact.

I checked process documentation in relation to buying and selling notification and confirmed that notifications were in place for all affected NSPs.

#### **Audit Commentary**

Trading notifications are now managed within SAP, so external validation processes are not required.

Checks that valid trading notifications are in place are part of the reconciliation report validation checks, discussed in section 12.2. In addition, the Reconciliation Portal will not accept any submission where a valid trader notification is not in place.

Compliance is confirmed.

### 11.2 Calculation of ICP Days (Clause 15.6)

*Each retailer and direct purchaser (excluding direct consumers) must deliver a report to the reconciliation manager detailing the number of ICP days for each NSP for each submission file of submission information in respect of:*

*15.6(1)(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*

*15.6(1)(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

#### **Audit Observation**

The process for the calculation of ICP days was examined by checking five NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct.

I reviewed variances for 16 months of GR100 reports, and investigated any large discrepancies.

### **Audit Commentary**

The process for the calculation of ICP days was examined by checking five NSPs with a small number of ICPs. The ICP days calculation was confirmed to be correct.

During the previous audit, an issue with ICP days calculation was present. If the historic tariff or meter configuration changes are made up to and including the day of a meter change, rather than the day prior to the meter change, the two readings on one day resulted in SAP not calculating an ICP day for the day of the meter change. This issue was cleared in August 2016. I saw evidence of the system resolution including test results, approval for the change to be migrated into production and system release information.

The following table shows the ICP days difference between Contact files and the RM return file (GR100) for all available revisions for several months. Negative percentage figures indicate that the Contact ICP days figures are higher than those contained on the registry. The discrepancies are very small and generally stable.

Month	Initial	1-Mth	3-Mth	7-Mth	14-Mth
Oct-15	0.14%	0.14%	0.10%	0.05%	-0.02%
Nov-15	0.17%	0.00%	0.08%	-0.01%	-0.02%
Dec-15	0.20%	0.15%	0.07%	-0.02%	-0.02%
Jun-16	0.12%	0.01%	0.00%	0.00%	
Jul-16	0.05%	0.05%	0.02%	-0.01%	
Aug-16	0.09%	0.09%	0.04%		
Sep-16	0.10%	0.08%	0.02%		
Oct-16	0.06%	0.07%	-0.01%		
Oct-15	0.14%	0.14%	0.10%	0.05%	-0.02%
Nov-15	0.17%	0.00%	0.08%	-0.01%	-0.02%

## **11.3 Electricity Supplied Information Provision to the Reconciliation Manager (Clause 15.7)**

*A retailer must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each NSP, aggregated by invoice month, for which it has provided submission information to the reconciliation manager, including revised submission information for that period as non-loss adjusted values in respect of:*

*15.7(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*

*15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*



### **Audit Observation**

The process for the calculation of electricity supplied was examined by checking five NSPs with a small number of ICPs to confirm the AV120 billed calculation was correct.

Review the GR130 reports for November 2015 onwards to confirm whether the relationship between billed and submitted data appears reasonable.

### **Audit Commentary**

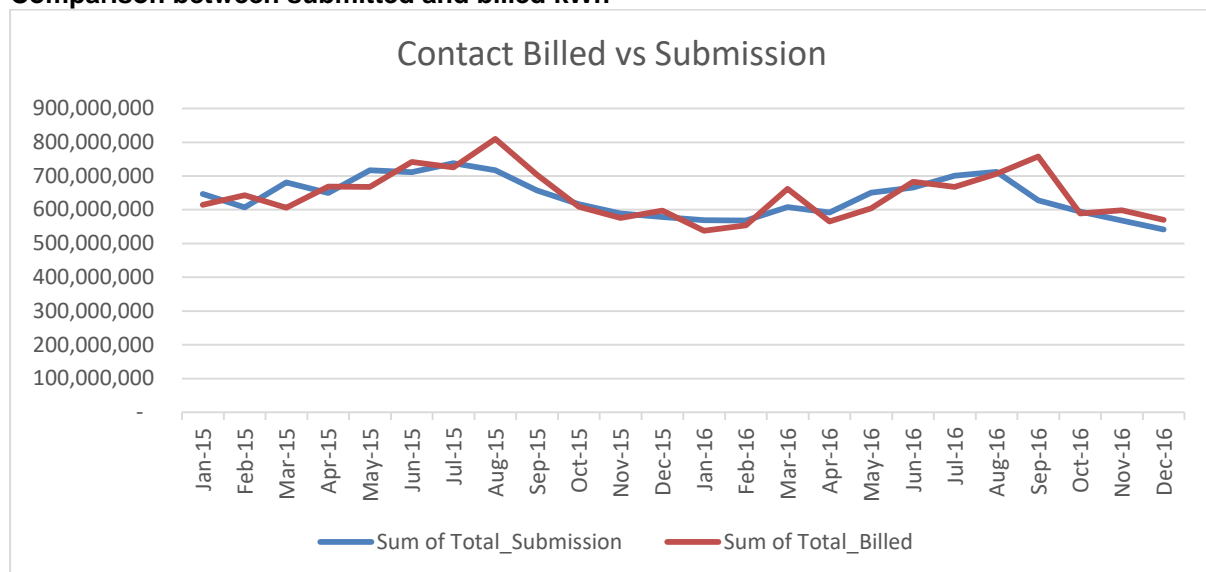
The accuracy of the NHH and HHR electricity supplied information was checked by examining five NSPs with a small volume and checking all invoices in SAP. Compliance is confirmed.

The process for calculating and submitting electricity supplied information was reviewed. Contact provided data showing a comparison between submission information and electricity supplied information for the period January 2015 to December 2016. The variation between the two sets of data is 1.00% with the electricity supplied information being higher than the submission information.

Contact monitors the GR130, and compares AV120 data to previous submissions when the reports are created. I investigated larger monthly differences between billed and submitted data and found that most were timing differences, influenced by when billing runs occurred, forward estimates, seasonal consumption patterns, and correction of historic issues relating to some reversals not being included in the billed data.

During the previous audit, an issue with as billed submissions was present. When an invoice was reversed in SAP and re-invoiced the same day, the reversal did not flow through to the electricity supplied file, only the new invoice did. This issue was cleared in March 2016, and remediation work to fix historic issues before the system change was completed by 25/10/2016. I saw evidence of the system resolution including test results, approval for the change to be migrated into production and system release information.

### **Comparison between submitted and billed kWh**



## 11.4 HHR Aggregates Information Provision to the Reconciliation Manager (Clause 15.8)

*A retailer or direct purchaser (excluding direct consumers) must deliver to the reconciliation manager its total monthly quantity of electricity supplied for each half hourly metered ICP for which it has provided submission information to the reconciliation manager, including:*

*15.8(a) - submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period*

*15.8(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.*

### **Audit Observation**

I confirmed that the process for the calculation and aggregation of HHR data is correct by matching HHR aggregates information with the HHR vols data. Only tiny rounding differences were present and compliance is confirmed. I also traced volume data through to volume information received from MEPs and agents for six ICPs for May 2017.

The “ICP Missing” files were examined for the audit period. An extreme case sample of the five ICPs with the largest number of months containing missing data were reviewed.

### **Audit Commentary**

The ICP missing report is monitored by the HDM team, who take action to resolve any action required to resolve the discrepancy and track progress with the resolution.

The “ICP Missing” files were examined for the audit period and they contained examples where the registry was populated incorrectly or late, but there were no examples of submission information missing for other reasons other than backdated events, or incorrect submission flags on the registry. Registry inaccuracies are discussed in other sections of this report.

The HHR Aggregates files are prepared at ICP level based on submission information. Clause 15.8 states that the aggregates file should contain electricity supplied information rather than submission information. Electricity supplied information is defined as shown below:

**electricity supplied** means, for any particular period, the information relating to the quantities of **electricity** supplied by **retailers** across **points of connection** to **consumers**, sourced directly from the **retailer’s** financial records, including quantities—

- (a) that are metered or unmetered; and
- (b) supplied through normal **customer** supply and billing arrangements; and
- (c) supplied under sponsorship arrangements; and
- (d) supplied under any other arrangement

This differs from the Reconciliation Manager Functional Specification. In Section 3 of the Reconciliation Manager Functional Specification, HHR Aggregates information is described as: “...HHR submission information that is aggregated per ICP for the whole month (not half-hourly)”, which suggests an intention that this information should be sourced from submission information not electricity supplied information, which is covered by clause 15.7.

Type of information that is submission information	Description	Source	Classification in this document
information	electricity supplied information.		supplied
Monthly half-hour ICP aggregates	This is equivalent to the HHR submission information that is aggregated per ICP for the whole month (not half-hourly).	Purchasers (excluding direct consumers)	Monthly half-hour ICP aggregates

Data from the aggregates file is used to support other reporting by the Reconciliation Manager and will be of little value if it is based on Electricity Supplied data rather than submission data. Electricity Supplied data has a one month offset and invoicing is not required to occur within any specific timeframes.

Whilst the Code clearly states this file should be derived from financial records, I recommend Contact liaises with other participants to consider recommending a Code change which will allow for the aggregates files used in the industry to remain unchanged.

Non-compliance	Description		
<b>With:</b> Clause 15.8 of part 15  <b>From/to:</b> 01/07/16 to 30/06/17	HHR aggregates file does not contain electricity supplied information. <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Once <b>Controls:</b> Strong if code is changed <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	Contact is reporting submission volumes at ICP level as expected by the reconciliation manager.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact plans to work with Traders to propose a change to correct this issue in the Code.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

## 12. Submission Computation

### 12.1 Daylight Saving Adjustment (Clause 15.36)

*The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using one of the techniques set out in clause 15.36(3) specified by the Authority.*

#### **Audit Observation**

Data processes for agents were reviewed as part of their agent audits. These reports are attached as appendices.

A diverse characteristics sample of four daylight savings adjustments, covering going into and coming out of daylight savings for each data provider was examined.

#### **Audit Commentary**

Data processes for agents were reviewed as part of their agent audits. These reports are attached as appendices, and processes were confirmed to be compliant.

All HHR data provided to Contact is daylight savings adjusted using the “trading period run on” technique. This was confirmed by checking the files for the start and end of daylight saving. The correct number of trading periods were recorded in all cases.

Compliance is confirmed.

### 12.2 Creation of Submission Information (Clause 15.4)

*By 1600 hours on the 4th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all NSPs for which the reconciliation participant is recorded in the registry as having traded electricity during the consumption period immediately before that reconciliation period (in accordance with Schedule 15.3).*

*By 1600 hours on the 13th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all points of connection for which the reconciliation participant is recorded in the registry as having traded electricity during any consumption period being reconciled in accordance with clauses 15.27 and 15.28, and in respect of which it has obtained revised submission information (in accordance with Schedule 15.3).*

#### **Audit Observation**

I compared the actual submission dates and times on the allocation portal against a list of expected submission dates and times for a sample of five submission months.

A list of breaches was obtained from the Electricity Authority. There were no breaches for late provision of submission information.

A sample of HHR ICPs were checked to ensure that volumes were correctly recorded in section 11.4.

A sample of NHH ICPs were checked to make sure they are handled correctly, including unmetered load, distributed generation, and vacant ICPs. Further information on calculation of historic estimate is recorded in section 12.11.

A sample of corrections were reviewed to ensure that they flowed through to revision submissions in section 8.1 and 8.2.

### **Audit Commentary**

No breaches had been recorded for late provision of submission information. I checked reconciliation submission dates and times on the allocation portal against a list of expected due dates and times for submissions made in February 2017, March 2017, April 2017 and May 2017. All submissions were made on time.

Contact prepares submission information for each NSP for the relevant consumption period, the submission information should include:

- HHR volume information
- NHH volume information (forward or historic estimates); and
- unmetered load quantities for each ICP that has unmetered load associated with it.

### **HHR Submissions**

HHR submission is accurate and contains a number of validation steps to ensure accuracy.

- For initial AV090 submissions, consumption is graphed at NSP level and checked for reasonableness against the previous month's submission. Consumption per NSP and loss factor is checked to identify changes of more than 10% from the previous month, which is then examined and comments are added to the file. Once this review is complete it is independently checked by the HDM Team Leader.
- Initial AV140 submissions are compared against the business day 13 submission for the previous month. Any anomalies are investigated using the NEO graphing tool.
- For revision AV090 submissions, data is reviewed against the previous submission for the month. Any differences over approximately 15% are reviewed, and an informal materiality limit is applied to approve small kWh differences. Once this review is complete it is independently checked by the HDM Team Leader.

### **NHH submissions**

Contact runs the submission through an Access database for review prior to submission. I walked through these pre-submission checks to ensure that NHH submissions are accurate. In some cases issues are found with consumption that cannot be corrected in time for submission. In these cases, Contact manually estimates the consumption to ensure the issues does not affect submission accuracy thresholds. The submission file is generated from the reviewed access submission.

The pre submission checks completed in the Access database include:

- ICPs using over 10,000 kWh per month are checked against a list of known high consumers. Any ICPs not found to be on the list are investigated.

- Identifying distributed generation issues, including invalid flow direction, inconsistency between profile and direction, no contract set up, or contract set up and no data in report.
- Identifying invalid profiles, such as HHR. I checked that a correction to profile flowed through to the March 2017 submission.
- Identifying invalid loss codes, which are either missing or inconsistent with the network. I checked two examples were appropriately corrected for May 2017.
- Identifying NSPs with no contract set up. Contact will issue a trading notification prior to submission to allow submission.
- Identifying instances of historic estimate > total estimate. This can occur where forward estimate is negative. The data is corrected in the database so that the forward estimate matches the historic estimate.
- Identifying missing profiles, to ensure data is reported for each of Contact's expected profiles.
- Identifying ICPs with potential consumption data defects, transposed reads, meter reader errors and AMI reads where unexpected errors are provided. These ICPs are investigated and their consumption is manually estimated to ensure the issues do not affect submission accuracy thresholds.

Once reviewed and any data issues have been resolved, a revised AV080 is produced from the database. This is entered into an Excel based AV080 check worksheet for further review. This NSP level check includes:

- Initial submission – comparison to the previous month, which flags any variances greater than  $\pm 50,000$  kWh and  $\pm 5\%$ .
- Revision submissions – comparison to the previous submissions for the month, which flags any variances  $\pm 50,000$  kWh and  $\pm 5\%$ .

Anomalies are investigated at a more detailed level to confirm whether there is an issue that requires further investigation or correction.

Once all checks are complete, the file is saved as csv, run through the file checker and submitted.

Submission information is provided to the reconciliation manager in the appropriate format. The AV080 report is rounded to two decimal places.

As recorded in Section 3.9, there are 1,288 ICPs where consumption is recorded for Inactive ICPs. There are some scenarios where submission had not occurred. 155,614 kWh will be submitted in the next revision files and further exceptions are yet to be evaluated totalling 297,463 kWh.

Non-compliance	Description		
<b>With:</b> Clause 15.4 of part 15  <b>From/to:</b> 13/01/15 to 20/03/17	No submission for some disconnected ICPs where consumption is present. <b>Potential impact:</b> Medium <b>Actual impact:</b> Medium <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 4		
Audit Risk Rating	Rationale for audit risk rating		
Medium	There is good reporting in place to identify consumption on disconnected ICPs but the controls related to the resolution of these matters do not have the same strength.  There is a moderate impact on settlement because submission information is provided late or in some cases may be outside the 14-month window.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact has implemented a reconciliation to identify potential consumption on inactive sites in order to investigate and resolve these as soon as practicable.  Contact has extended its process documentation and is providing further training for users to eliminate.  Further reporting is being developed to identify failed registry status updates so that these are corrected in a more timely manner		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact will review it process around credit disconnections to improve registry reporting timeframes		TBA	

## 12.3 Allocation Of Submission Information (Clause 15.5)

*In preparing and submitting submission information, the reconciliation participant must allocate volume information for each ICP to the NSP indicated by the data held by the registry for the relevant consumption period at the time the reconciliation participant assembles the submission information. Volume information must be derived in accordance with Schedule 15.2.*

*However, if, in relation to a point of connection at which the reconciliation participant trades electricity, a notification given by an embedded generator under clause 15.13 for an embedded generating station is in force, the reconciliation participant is not required to comply with the above in relation to electricity generated by the embedded generating station.*

### **Audit Observation**

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in section 2.1.

The process to ensure that AV080 submissions are accurate was discussed. The process for aggregating the AV080 was examined by checking five NSPs with a small number of ICPs.

The GR170 to AV080 files for three months were compared, to confirm zeroing occurs.

### **Audit Commentary**

The process for the calculation of NHH volumes was examined by checking five NSPs with a small number of ICPs. NHH volume calculation was confirmed to be correct.

GR170 and AV080 files for 14 month revisions for March 2016 and November 2016 were compared, and found to contain the same NSPs. There was one exception for October 2016, which was a timing difference relating to a backdated switch effective 15/09/16, processed on 21/11/17.

Aggregation was checked for 23 NSPs and found to be compliant.

All active ICPs with category 3 or higher meters have submission type HHR.

Compliance is confirmed.

## **12.4 Grid Owner Volumes Information (Clause 15.9)**

*The participant (if a grid owner) must deliver to the reconciliation manager for each point of connection for all of its GXPs, the following:*

- submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.9(a))*
- revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.9(b)).*

### **Audit Observation**

Contact is not a grid owner.

### **Audit Commentary**

This clause does not apply.

## **12.5 Provision of NSP submission information (Clause 15.10)**

*The participant (if a local or embedded network owner) must provide to the reconciliation manager for each NSP for which the participant has given a notification under clause 25(1) Schedule 11.1 (which relates to the creation, decommissioning, and transfer of NSPs) the following:*

- submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.10(a))*



- revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.10(b)).

#### **Audit Observation**

Contact is not an embedded network owner.

#### **Audit Commentary**

This clause does not apply.

## **12.6 Grid Connected Generation (Clause 15.11)**

*The participant (if a grid connected generator) must deliver to the reconciliation manager for each of its points of connection, the following:*

- submission information for the immediately preceding consumption period, by 1600 hours on the 4th business day of each reconciliation period (clause 15.11(a))
- revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period (clause 15.11(b)).

#### **Audit Observation**

This process is managed by EMS on behalf of Contact. Data is no longer required to be sent to the Pricing Manager, only the Grid Owner.

#### **Audit Commentary**

EMS are responsible for submitting generation submissions, and this was covered in their agent audit report. No issues were noted, and compliance is confirmed.

## **12.7 Accuracy of Submission Information (Clause 15.12)**

*If the reconciliation participant has submitted information and then subsequently obtained more accurate information, the participant must provide the most accurate information available to the reconciliation manager or participant, as the case may be, at the next available opportunity for submission (in accordance with clauses 15.20A, 15.27, and 15.28).*

#### **Audit Observation**

Submission dates and times were reviewed on the allocation portal, to confirm that revised submissions are provided at the next available opportunity.

A sample of corrections were reviewed to ensure that they flowed through to revision submissions in sections 8.1 and 8.2.

#### **Audit Commentary**

Revisions were submitted as required and corrections flowed through to these revision submissions. Compliance is confirmed.

## 12.8 Permanence of Meter Readings for Reconciliation (Clause 4 Schedule 15.2)

*Only volume information created using validated meter readings, or if such values are unavailable, permanent estimates, has permanence within the reconciliation processes (unless subsequently found to be in error).*

*Volume information created using estimated readings must be subsequently replaced at the earliest opportunity by the reconciliation participant by volume information that has been created using validated meter readings or permanent estimates by, at the latest, the month 14 revision cycle.*

*A permanent estimate may be used in place of a validated meter reading, but only if, despite having used reasonable endeavours; the reconciliation participant has been unable to obtain a validated meter reading.*

### **Audit Observation**

Three AV080 14 month revisions were reviewed to identify any forward estimate still existing.

Review of documentation on the Automated Meter Reading Compliance (MRC) Process.

### **Audit Commentary**

Review of AV080 14 month revisions showed forward estimates remained at the time of the 14 month revision. Not all estimated meter readings had been replaced with validated meter readings, primarily due to meter access issues. This is recorded as non-compliance below.

An Automated Meter Reading Compliance (MRC) Process has been implemented to improve meter reading attainment; this is discussed further in section 6.9. If a read cannot be attained through the process a permanent estimate is entered. I reviewed five examples of these permanent estimates and noted that in all cases, a previous actual read was present, which was used to validate the permanent estimate.

Non-compliance	Description		
<b>With:</b> Clause 4 of schedule 15.2 and clause 15.2 of part 15  <b>From/to:</b> November 2015, December 2015 and January 2016	Some estimates not replaced at R14.  <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Multiple times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	A process has been implemented to enter permanent estimates by the time of the 14 month revision, it is expected that the volume of forward estimate at the 14 month revision will reduce over time.		
Actions taken to resolve the issue		Completion date	Remedial action Status

Contact has implemented a system enhancement that will ensure a permanent estimate read is applied for sites with no actual read for 12 months once best endeavours has been achieved	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
A system fix has been implemented to address this issue – but will take 14 months for these improvements to feed into the wash up process.	Ongoing	

## 12.9 Creation of Submission Information (Clause 2 Schedule 15.3)

*If a reconciliation participant prepares submission information for each NSP for the relevant consumption periods in accordance with the Code, such submission information must comprise the following:*

- *half hour volume information for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a))*
- *for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(b)):*
  - *half hour volume information for the ICP; or*
  - *non half hour volumes information calculated under clauses 4 to 6 (as applicable).*
- *unmetered load quantities for each ICP that has unmetered load associated with it derived from the quantity recorded in the registry against the relevant ICP and the number of days in the period, the distributed unmetered load database, or other sources of relevant information (clause 2(1)(c))*
- *to create non half hour submission information a reconciliation participant must only use information that is dependent on a control device if (clause 2(2)):*
  - (a) *the certification of the control device is recorded on the registry; or*
  - (b) *the metering installation in which the control device is location has interim certification.*
- *to create submission information for a point of connection the reconciliation participant must apply to the raw meter data (clause 2(3)):*
  - *for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))*
  - *for each NSP the compensation factor that is recorded in the metering installations most recent certification report (clause 2(3)(b)).*

### **Audit Observation**

The registry list was reviewed to confirm whether ICPs with category 3 higher metering installations have half hour data provided.

Aggregation AV090 and AV140 submissions is covered in section 11.4. Aggregation of AV080 submissions is covered in section 12.3. Submission of unmetered load is discussed in section 12.2 and historical estimate for unmetered load is discussed in section 12.10.

ICPs where profiling is dependent on the control device were identified on a registry list. A sample of 242 of these ICPs were then matched to a registry event detail report to confirm whether the control devices were appropriately certified.

### **Audit Commentary**

The registry list was reviewed to ensure that all ICPs with category 3 higher metering installations have half hour data provided. There were no active ICPs with meter category 3 or higher that did not have HHR data reported.

Aggregation AV090 and AV140 submissions is covered in section 11.4. Aggregation of AV080 submissions is covered in section 12.3. Submission of unmetered load is discussed in section 12.2 and historical estimate for unmetered load is discussed in section 12.10.

Contact is aware of the requirement for control devices to be certified, and metering installations to have certification. Of the sample of 242 ICPs checked:

- 26 were found not to have a certified control device as shown below:

Registry Profile Code	Count of ICPs without a certified control device
RPS E08 PV1	13
RPS E11	1
RPS E11 PV1	2
RPS T07 PV1	1
T07 T23 PV1	4
TOC TON PV1	5

- Six ICPs were found to have expired certifications

ICP	Certification Type	Expiry	Control device certified	Profile
0000028563NT296	F	22/02/2001	Y	RPS E08 PV1
0000118238TP249	I	31/03/2015	N	RPS E08 PV1
0000000325NT377	F	1/04/2015	N	RPS E08 PV1
0000134163WA37E	F	1/04/2015	N	RPS E08 PV1
0000201185MP635	F	1/04/2015	N	RPS E08 PV1
0000563352TPACA	I	1/04/2015	Y	RPS E08 PV1

Contact is submitting consumption information under the RPS profile for all of these ICPs, but the registry has not been updated with the correct profile. This is recorded as non-compliance in section 2.1. There are 19,821 ICPs with the incorrect profile.

Compensation factors were reviewed in section 2.1 and the relevant validations are compliant.

## 12.10 Historical Estimates and Forward Estimates (Clause 3 Schedule 15.3)

*For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates (clause 3(1)).*

*Each estimate that is a forward estimate or a historical estimate must clearly be identified as such (clause 3(2)).*

*If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings (clause 3(3)).*

### **Audit Observation**

Review nine AV080 submissions for revisions 3 to 14, to confirm that historic estimates are included and identified.

Permanence of meter readings is reviewed in section 12.8. The methodology to create forward estimates is reviewed in section 12.11.

### **Audit Commentary**

I reviewed nine AV080 submissions for a diverse sample of months and revisions and confirm that forward and historic estimates are included, and identified as such. Compliance is confirmed.

## 12.11 Historical Estimate Process (Clause 4 And 5 Schedule 15.3)

*The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historic estimates of volume information for each ICP when the relevant seasonal adjustment shape is available.*

*If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities  $kWh_{Px}$  must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by  $kWh_{Px}$*

### **Audit Observation**

To assist with determining compliance of the Historical Estimate (HE) processes, Contact was supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted, and compared to the result from Contact's system.

The process for managing shape files was examined.

### **Audit Commentary**

The table below shows that all scenarios are compliant. Where the actual scenario had not occurred during the audit period, Contact provided an example from their test system. The check of

calculations included confirming that readings and shape files were applied correctly. For one example checked under test B (ICP 0150821506LC1D3) a read on 15/09/17 was applied when calculating historic estimate, this read was no longer available in SAP and did not match to the read files received. The calculation itself was working as expected, and this was confirmed by reviewing other examples where an ICP became active or inactive during a month. It is unclear whether there is a problem with this ICP or not, so a recommendation is made in case the issues has an impact on other ICPs.

Recommendation	Description	Audited party comment	Remedial action
<b>Regarding:</b> Clause 4 of schedule 15.3	Confirm whether the 35 kWh recorded on 15/09/16 for ICP 0150821506LC1D3 is valid and supported by a validated meter reading.		Investigating

The process for managing shape files was examined. There is an automated process where the RM web server is polled for new files. The new files overwrite the old files, and if a new file is not available, the most recent file remains. I viewed the data capture process and noted that files had been processed as expected. Manual intervention is only required where a file has failed to upload. Typically failures occur only if a data value in one of the fields is not set up in SAP. The user will enter the data value in SAP's maintenance tables, and then move the file back to the source folder, so that it will be picked up for import.

Meter rollovers are normally identified though the negative consumption check in meter reading exception process discussed in section 9.6. These exceptions are sent to the Installation Data Management Team (IDM) for investigation and resolution. There can be delays in resolving meter rollover issues, in some cases the number of dials needs to be confirmed with the MEP before SAP can be corrected.

Test	Scenario	Test expectation	Result
A	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant
B	ICP becomes Active then Inactive within a month.	Consumption is only calculated for the Active portion of the month.	Compliant
C	ICP becomes Inactive, then Active, then Inactive again within a month.	Consumption is only calculated for the Active portion of the month.	Compliant
D	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Compliant
E	ICP Starts on the 1st day of a month.	Consumption is calculated to include the 1st day of responsibility.	Compliant
F	ICP Ends on the Last Day of the month.	Consumption is calculated to include the last day of responsibility.	Compliant
G	ICP Starts part way through a month.	Consumption is calculated to include the 1st day of responsibility.	Compliant
H	ICP Ends part way through a month.	Consumption is calculated to include the last day of	Compliant

Test	Scenario	Test expectation	Result
		responsibility.	
I & J	ICP is Lost and Won Back in a month.	Consumption is calculated for each day of responsibility.	Compliant
K	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Compliant
L	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Compliant
M	ICP Starts on 1st and Ends on Last day of month.	Consumption is calculated for each day of responsibility.	Compliant
N	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Compliant

## 12.12 Forward Estimate Process (Clause 6 Schedule 15.3)

*Forward estimates may be used only in respect of any period for which an historical estimate cannot be calculated.*

*The methodology used for calculating a forward estimate may be determined by the reconciliation participant, only if it ensures that the accuracy is within the percentage of error specified by the Authority.*

### **Audit Observation**

The process to create forward estimates was reviewed.

Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions over the audit period.

### **Audit Commentary**

Contact's forward estimates are based on either:

- daily average consumption with temperature adjustment from an average at the same time the previous year, or if this isn't available then;
- daily average consumption from the previous read to read period with temperature adjustment, or if this isn't available then;
- the average daily consumption for the particular billing class.

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15% and within 100,000kWh. The table below shows the number of balancing areas where this target was not met.

### Quantity of balancing areas with differences over 15% and 100,000 kWh

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total
Sept 2015	0	2	2	3	181
Oct 2015	1	2	1	1	183
Nov 2015	2	3	3	3	186
Jun 2016	1	2	2	-	205
Jul 2016	0	0	0	-	207
Aug 2016	0	0	0	-	207
Sep 2016	0	1	-	-	211
Oct 2016	0	0	-	-	220
Nov 2016	0	0	-	-	221

The total variation between revisions at an aggregate level is shown below.

Month	Revision 1	Revision 3	Revision 7	Revision 14
Sept 2015	0.33%	0.61%	0.70%	0.83%
Oct 2015	0.23%	2.34%	2.38%	2.61%
Nov 2015	2.24%	3.08%	2.80%	3.15%
Jun 2016	0.82%	0.90%	1.02%	-
Jul 2016	0.15%	-2.26%	-2.40%	-
Aug 2016	0.39%	-1.16%	-1.42%	-
Sep 2016	1.92%	3.24%	-	-
Oct 2016	0.67%	2.65%	-	-
Nov 2016	-0.52%	0.06%	-	-

I checked six balancing area specific variations greater than  $\pm 15\%$  and  $\pm 100,000\text{kWh}$ . In all cases the difference was due to the forward estimate component being over or under stated. Inaccurate forward estimate was more common in situations where

- default values for a meter type were applied where it is common for ICPs to have a multi meter installation, resulting in over submission; or
- new sites switching in where estimated consumption is too low.



Non-compliance	Description		
<b>With:</b> Clause 6 of Schedule 15.3  <b>From/to:</b> Sep 15, Oct 15, Nov 15, Jun 16, Sep 16	FE accuracy threshold not met for some balancing areas.  <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Six times <b>Controls:</b> Strong <b>Breach Risk Rating:</b> 1		
Audit Risk Rating	Rationale for audit risk rating		
Low	Initial data is replaced with revised data, and washed up.		
Actions taken to resolve the issue		Completion date	Remedial action Status
Contact has made steady progress in reducing its submission inaccuracies. Both the number of affected balancing areas and overall percentage variation between revisions has improved from the 2016 audit.  Contact is continuing to review its submission accuracy and where necessary transition larger consuming ICPs to monthly read cycles in order to improve submission accuracy.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Contact anticipates that once the nationwide smart meter roll outs are materially complete that the number of occurrences of FE exceeding the current 15% threshold will materially disappear		Ongoing	

## 12.13 Compulsory Meter Reading After Profile Change (Clause 7 Schedule 15.3)

*If the reconciliation participant changes the profile associated with a meter, it must, when determining the volume information for that meter and its respective ICP, use a validated meter reading or permanent estimate on the day on which the profile change is to take effect.*

*The reconciliation participant must use the volume information from that validated meter reading or permanent estimate in calculating the relevant historical estimates of each profile for that meter.*

### **Audit Observation**

The registry list with history for the audit period was examined to identify all ICPs which had a profile change during the audit period. A typical sample of five ICPs with profile changes were reviewed to confirm that there was an actual reading on the day of the profile change.

### **Audit Commentary**

All profile changes are conducted using a meter reading or a permanent estimate on the day of the profile change, compliance is confirmed.

## 13. Submission Format And Timing

### 13.1 Market Administrator Meter Reading Reports (Clauses 8 & 9 of Schedule 15.2)

*Provision of meter read frequency reports to the Authority, no later than 20 business days after the end of the month.*

#### **Audit Observation**

I reviewed meter reading reports for September 2016 to March 2017, to confirm that they meet the meter reading frequency report requirements.

Review processes to ensure the reports are accurate and submitted on time, and the timeliness of submission for a sample of reports.

#### **Audit Commentary**

Reports to the Market Administrator are run on the second Thursday of each month. Copies of the reports for January to May 2017 were provided during the audit. I viewed emails to confirm that the reports were sent earlier than 20 business days after the end of the month. Compliance is confirmed.

### 13.2 Provision Of Submission Information to the RM (Clause 8 Schedule 15.3)

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

- NSP code (clause 8(a))
- reconciliation type (clause 8(b))
- profile (clause 8(c))
- loss category code (clause 8(d))
- flow direction (clause 8(e))
- dedicated NSP (clause 8(f))
- trading period for half hour metered ICPs and consumption period or day for all other ICPs (clause 8(g)).

#### **Audit Observation**

Aggregation of the AV080 was reviewed for five small NSPs in section 12.3.

#### **Audit Commentary**

Submission information is provided to the reconciliation manager in the appropriate format.

Compliance is confirmed.

### 13.3 Reporting Resolution (Clause 9 Schedule 15.3)

*When reporting submission information, the number of decimal places must be rounded to not more than two decimal places.*

*If the unrounded digit to the right of the second decimal place is greater than or equal to five, the second digit is rounded up, and if the digit to the right of the second decimal place is less than five, the second digit is unchanged.*

#### **Audit Observation**

Aggregation of the AV080 was reviewed for five small NSPs in section 12.3. Reporting resolution was examined.

#### **Audit Commentary**

AV080, AV090 and AV140 reports are rounded to two decimal places. Compliance is confirmed.

### 13.4 Historical Estimate Reporting to RM (Clause 10 Schedule 15.3)

*By 1600 hours on the 13th business day of each reconciliation period the reconciliation participant must report to the reconciliation manager the proportion of historical estimates per NSP contained within its non-half hour submission information.*

*The proportion of submission information per NSP that is comprised of historical estimates must (unless exceptional circumstances exist) be:*

- *at least 80% for revised data provided at the month 3 revision (clause 10(3)(a))*
- *at least 90% for revised data provided at the month 7 revision (clause 10(3)(b))*
- *100% for revised data provided at the month 14 revision (clause 10(3)(c)).*

#### **Audit Observation**

The three, seven and fourteen month revision files were examined for a selection of eight months to confirm the proportion of historical estimate.

Correct calculation and identification of historical estimate was confirmed in section 12.11.

#### **Audit Commentary**

The quantity of historical estimates is contained in the submission file, and is not a separate report. The table below shows that the thresholds were not met for some NSPs for some revisions.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Nov 2015	255	-	153	276
Dec 2015	-	-	162	281
Jan 2016	-	278	164	284
Feb 2016	-	284	-	290

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Mar 2016	-	286	-	292
Oct 2016	301	-	-	311
Nov 2016	299	-	-	310
Dec 2016	308	-	-	312

The table below shows that the percentage HE at a summary level for all NSPs is well above the required targets for 3 and 7 month revisions, but below the required target for the 14 month revision.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Nov 2015	95.8%	-	99.8%
Dec 2015	-	-	99.8%
Jan 2016	-	98.7%	99.9%
Feb 2016	-	99.2%	-
Mar 2016	-	99.4%	-
Oct 2016	97.6%	-	-
Nov 2016	97.3%	-	-
Dec 2016	97.3%	-	-

Non-compliance	Description		
<b>With:</b> Clause 10 of Schedule 15.3  <b>From/to:</b> Nov-Mar 16, Oct-Dec 16	HE targets were not met for some NSPs.  <b>Potential impact:</b> Low <b>Actual impact:</b> Low <b>Audit history:</b> Six times <b>Controls:</b> Moderate <b>Breach Risk Rating:</b> 2		
Audit Risk Rating	Rationale for audit risk rating		
Low	The improved Meter Read Compliance (MRC) process should increase read attainment, and the use of permanent estimate reads where actual reads cannot be obtained.		
Actions taken to resolve the issue		Completion date	Remedial action Status

Contact has implemented a system enhancement that will ensure a permanent estimate read is applied for sites with no actual read for 12 months once best endeavours has been achieved. Over the next 6 – 12 months the system will start applying the permanent estimates reads resulting in consumption information being reported as historic estimates in our final wash up submission.	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	

## Conclusions

The audit found 28 non-compliance issues and four recommendations are made.

Improvements have been made in the following areas since the last audit:

- the timeliness of registry updates has further improved
- the issues related to ICP days and electricity supplied accuracy have been resolved.

The main issues identified during this audit are:

- some distributed unmetered load issues are still existing, leading to incorrect submission information
- improvements are required to ensure submission of consumption information for ICPs incorrectly recorded as de-energised
- some unmetered load daily kWh figures are incorrect.

Four recommendations are made in the report. The three most important ones are as follows:

- re-establish monitoring of the accuracy of active dates vs initial energisation and certification dates
- require energisation agents to provide better clarity regarding energisation dates
- re-establish the management of situations where pre-pay ICPs have not had a vend for a long period of time.

Signed by:



**Steve Woods**

**Veritek Limited**

Electricity Authority Approved Auditor

Signed by:



**Bernie Cross**

Energy Reconciliation Manager

## Contact Response

Contact has made steady progress in addressing its non-compliances during this audit assessment period. While the number of non-compliances has not reduced noticeably we have significantly reduced the volume of exceptions identified under each areas of non-compliance through system improvements and process changes. Contact takes its code compliance obligations seriously and we continue to address these issues as soon as practicable.

It is pleasing to see improvements in addressing registry discrepancies and reduced timing for providing notifications around the new connection and status change processes. Also the reduction of DUML non-compliances is reflective of significant investment of resources Contact had made to address these issue given the sheer number of third parties involved and limited influence Contact can apply via commercial agreements in order to address regulatory obligations.

This audit is the first under the new audit regime which sets out a proposed audit cycle based on the score of future risk rating assessments from the current audit and a set of performance bands determined by the Authority. Contact has concerns that this approach to determining the next audit date fails to recognise how narrow or wide a reconciliation participant is operating within the code. For example a Reconciliation participant who is solely providing services for embedded network gate meters is assessed against the same performance bands as that of Contact Energy which not only provides services for embedded network gate meters, but also switching, registry management, NHH and HHR settlement.

The impact of this narrow focus on these participant performance bands will be reflected in a number of larger participants who undertake wider functions within the code being pushed to shorter audit cycles due to the number of minor non compliances being identified as having occurred as some point during the audit period. Whereas other participants who operate across a much smaller number of functions within the code but may have a few more material non compliances can maintain a longer audit cycle. We encourage the Authority to consider this inconsistency in the application of the audit regime when it undertakes its first review.