

**ELECTRICITY INDUSTRY PARTICIPATION CODE  
RECONCILIATION PARTICIPANT AUDIT REPORT**

For

**LIGHTHOUSE ENERGY(LITE)**

Prepared by: Ewa Glowacka – TEG & Associates Ltd

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Date audit report completed: 6 May 2020

Audit report due date: 11-Mar-20

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## EXECUTIVE SUMMARY

This reconciliation participant audit was performed at the request of Lighthouse Energy (LITE) to support their application for certification, in accordance with clauses 4 of Schedule 15.1 of The Code 2010. The relevant clauses audited are as required by the Guidelines for Reconciliation Participants Audits V 7.1 issued by the Electricity Authority.

Lighthouse Energy gained 152 ICPs since the last audit. Lighthouse Energy uses the registry interface for switching and for Information updates. The company also uploads switching files, which are created by their system. Each file is checked manually and uploaded to the registry via FTP server. On 3 occasions JC Consulting uploaded the CS files, when Lighthouse Energy's system was corrupted. The corruption of LITE's system has not had any impact on the integrity of data provided to the market as metering files are held by JC Consulting, who also creates and submits reconciliation files.

The audit found 11 non-compliances. The level of compliance has decreased since the last audit.

The main issues identified during this audit are:

- Switching – almost all non-compliances are related to switching, late files, incorrect proposed switch date
- Reads for ICPs with non-AMI meters. Lighthouse Energy has 6 ICPs which have not been read since switching in to LITE. The most “overdue” ICP is 0007188380RN9DD, which was gained on 25/09/19. The losing retailer has indicated average daily consumption as 0 kWh. No consumption has been submitted to the reconciliation manager. There is no established process to gain reads for these ICPs.

The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. Table 1 of the Guidelines for Reconciliation Participant audit provides some guidance on this matter. The Future Risk Rating score is 24 which results in an indicative audit frequency of 12 months. We agree with the result.

We thank Lighthouse's staff for their cooperation in this audit.

Registry files used to assess compliance covered the audit period was 01/11/2018 to 15/04/2020.

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Audit requirements	1.11	15.37A	Audit conducted late	Weak	Low	3	Identified
Relevant information	2.1	11.2	Relatively low number of information inaccuracies identified during the audit	Moderate	Low	2	Identified
Changes to registry information	3.3	10 of Schedule 11.1	Backdated transactions in the registry	Moderate	Low	2	Identified
ANZSIC codes	3.6	9(1)(k) of Schedule 11.1	Incorrect ANZSIC code for 4 ICPs	Moderate	Low	2	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 & 4(1)(a) of Schedule 11.3	Incorrect proposed event date for 3 ICPs, 7 AN files late	Moderate	Low	2	Identified
Losing trader must provide final information - standard switch	4.3	5 of Schedule 11.3	3 CS files late; average daily consumption methodology is incorrect	Moderate	Low	2	Identified
Losing traded must provide final information – switch move	4.8	10(1) of Schedule 11.3	Incorrect proposed event date for 3 ICPs; 12 AN files late; daily kWh consumption is incorrect	Moderate	Low	2	Identified
Losing trader determines a different date - switch move	4.9	10(2) Schedule 11.3	2 CS files sent later than 10 BD	Moderate	Low	2	Identified
Withdrawal of switch request	4.15	18 of Schedule 11.3	13 AW files were sent later than 5 business days	Moderate	Low	2	Identified
NHH meters 90% read rate	6.10	9(1) of Schedule 15.2	The read attainment was not met for 3 months	Weak	Low	3	Identified
Electricity supplied	11.3	15.7	Energy supplied is currently calculated	Moderate	Low	2	Identified

information provided to the reconciliation manager			by JC Consulting from the previous months Initial Network volumes				
HHR aggregates information provision to the reconciliation manager	11.4	15.8	HHRAGGR files do not contain electricity supplied information	Strong	Low	1	Not required. The Code change required a line up with RN file specification. Breach risk rating excluded from total
Future Risk Rating						24	
Next audit date						12 months	

Future risk rating	0-1	1-3	4-15	16-40	41-55	56+
Indicative audit frequency	36 months	24 months	18 months	12months	6 months	3 months

## RECOMMENDATIONS

Subject	Section	Description	Recommendation
			Nil

## ISSUES

Subject	Section	Description	Issue
			Nil

## 1. ADMINISTRATIVE

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

#### Code reference

*Section 11 of Electricity Industry Act 2010.*

#### Code related audit information

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

#### Audit observation

Lighthouse Energy does not have any exemptions granted to exempt them from compliance with all or any of the clauses.

#### Audit commentary

Lighthouse Energy did not apply for any exemptions. We checked the Electricity Authority website and confirm that there are no exemptions in place.

### 1.2. Structure of Organisation

The company consists of one director Shane Zhan.

### 1.3. Persons involved in this audit

Name	Title	Company
Shane Zhan	Director	Lighthouse Energy
Isuru Liyanage	Developer	Lighthouse Energy
Trinity Chen	Administrator	Lighthouse Energy
John Candy	Director	John Candy Consulting
Ewa Glowacka	Electricity Authority Approved Auditor	TEG & Associates

### 1.4. Use of Agents (Clause 15.34)

#### Code reference

*Clause 15.34*

#### Code related audit information

*A reconciliation participant who uses an agent*

- *remains responsible for the contractor's fulfilment of the participant's Code obligations*
- *cannot assert that it is not responsible or liable for the obligation due to something the agent has or has not done*

#### Audit observation

JC Consulting is the agent engaged to deliver Electricity Market settlement files (initial submissions and consecutive revisions) to the reconciliation manager. JC Consulting converts readings into compliant AV-080, AV-090, AV-120 and AV-140 and uploads to the RM portal on behalf of Lighthouse Energy. Meter Read Frequency reports are emailed to the Authority.



### Audit commentary

We viewed the signed agreement between JC Consulting and Lighthouse Energy.

#### 1.5. Hardware and Software

Lighthouse Energy conducts switching via the web interface. The company does not use any specific software to perform tasks covered by this audit.

JC Consulting who provides the reconciliation services uses Access Database (RM TOOL).

#### 1.6. Breaches or Breach Allegations

There were no breaches or breach allegations lodged against Lighthouse Energy in the period covered by this audit.

#### 1.7. ICP Data

Metering Category	(2020)	(2019)	(date)
1	152	6	
2	0	0	
3	0	0	
4	0	0	
5	0	0	
9	0	0	

Status	Number of ICPs (17/04/20)	Number of ICPs (12/11/18)	Number of ICPs (date)
Active (2,0)	152	6	
Inactive – new connection in progress (1,12)	0	0	
Inactive – electrically disconnected vacant property (1,4)	0	0	
Inactive – electrically disconnected remotely by AMI meter (1,7)	0	0	
Inactive – electrically disconnected at pole fuse (1,8)	0	0	
Inactive – electrically disconnected due to meter disconnected (1,9)	1	0	
Inactive – electrically disconnected at meter box fuse (1,10)	0	0	
Inactive – electrically disconnected at meter	0	0	

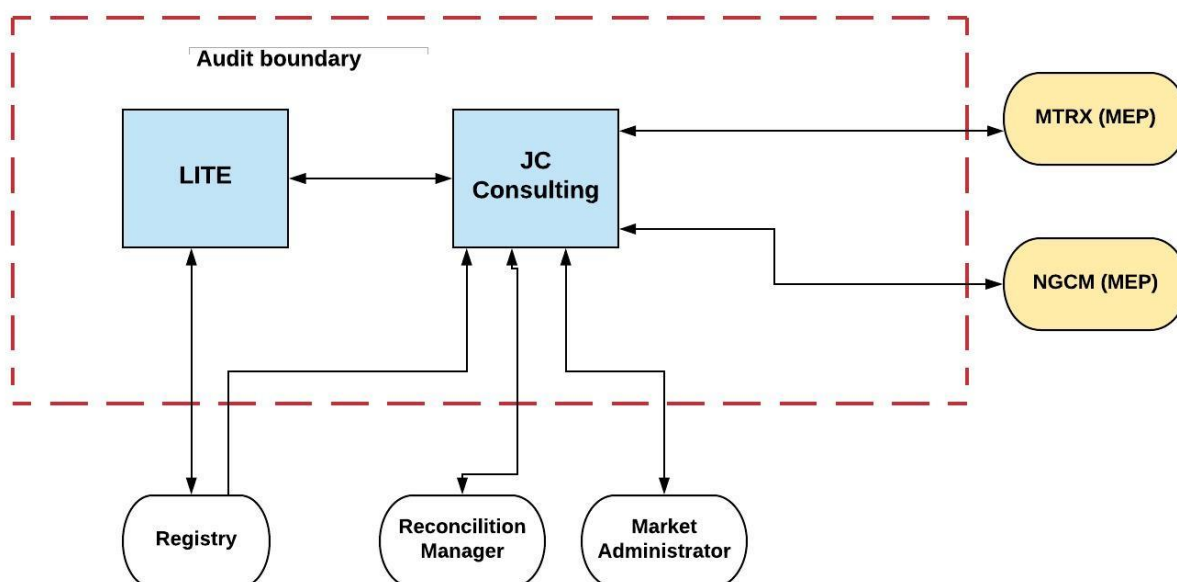
box switch (1,11)			
Inactive – electrically disconnected ready for decommissioning (1,6)	0	0	
Inactive – reconciled elsewhere (1,5)	0	0	
Decommissioned (3)	0	0	

### 1.8. Authorisation Received

No authorisation was required.

### 1.9. Scope of Audit

This reconciliation participant audit was performed at the request of Lighthouse Energy. Clause 4 of Schedule 15.1 puts the obligation on the reconciliation participant to obtain Authority approval before performing a function listed in clause 15.38(1) without certification.



Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Relevant to audit	Agents Involved in Performance of Tasks
(a) - Maintaining registry information and performing customer and embedded generator switching	✓	
(b) – Gathering and storing raw meter data	✓	
(c)(i) - Creation and management of HHR volume information	✗	
(c)(ii) - Creation and management of NHH volume information	✗	

(c)(ii) - Creation and management of HHR and NHH volume information	✓	JC Consulting
(c)(iv) - Creation and management of dispatchable load information	✗	
(d)(i) – Calculation and delivery of ICP days under clause 15.6	✓	JC Consulting
(d)(ii) - delivery of electricity supplied information under clause 15.7	✓	JC Consulting
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	✓	JC Consulting
(e) – Provision of submission information for reconciliation	✓	JC Consulting
(f) - Provision of metering information to the grid owner in accordance with subpart 4 of part 13	✗	

#### 1.10. Summary of previous audit

The previous audit was conducted by Ewa Glowacka of TEG & Associates on Jan 2019. The findings are noted in the table below:

Subject	Section	Clause	Non-Compliance	Comment
HHR aggregates information provision to the reconciliation manager	<b>Error! Reference source not found.</b>	15.8	HHRAGGR files do not contain electricity supplied information	Still exist

#### 1.11. Audit requirements (Clause 15.37A)

##### Code reference

Clause 15.37A

##### Code related audit information

*Each reconciliation participant and each dispatchable load purchaser must arrange to be audited regularly in accordance with Part 16A in respect of the reconciliation participant's or dispatchable load purchaser's obligations under this Part.*

##### Audit observation

The Lighthouse Energy reconciliation participant audit was due to be submitted to the authority by 11<sup>th</sup> March 2020 for certification to be approved by 27<sup>th</sup> May 2020. The audit was conducted on 23<sup>rd</sup> April 2020 therefore the audit report will be lodged late. This is recorded as non-compliance.

##### Audit outcome

# Non-compliant

Non-compliance	Description		
Audit Ref: 1.11 With: 15.37A From: 11-Mar-20 To: 30-Apr-20	Audit conducted late Potential impact: Low Actual impact: Low Audit history: None Controls: Weak Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The audit risk rating is recorded as low because the number of ICPs traded by Lighthouse Energy is small therefore any impact to the market will be minor		
Actions taken to resolve the issue		Completion date	Remedial action status
This was caused in part by our system corruption. We were focused on restoring our data and unfortunately missed this.			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
Our systems have been hardened and we have implemented more robust backups to prevent this.		-24/04/2020	

## 2. OPERATIONAL INFRASTRUCTURE

### 2.1. Relevant information (Clause 10.6, 11.2, 15.2)

#### Code reference

Clause 10.6, 11.2, 15.2

#### Code related audit information

*A participant must take all practicable steps to ensure that information that the participant is required to provide 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

A check of the Audit Compliance Summary Report for the audit period, the LIS, EDA and PR255 files 15/04/2020.

#### Audit commentary

The number of information inaccuracies identified during the audit are noted below

Section	Registry Discrepancy
3.3	Backdated entries in the registry such as MEP nominations, updating "Active" status
3.5	4 ICPs have incorrect ANZSIC code
4.2	Incorrect proposed event date for 3 ICPs
4.3 & 4.8	CS files - Average daily consumption methodology is incorrect

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 2.1 With: 11.2  From: 01-Nov-18 To: 15-Apr-20	Relatively low number of information inaccuracies identified during the audit  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>

<b>Low</b>	The controls are rated as moderate as they require some improvement. More strict processes to monitor new ICPs information such as type of metering and ANZSIC code. There was minor impact on settlement. Audit risk rating low		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
We have reviewed our processes and will be changing our procedures. We have also increased our team size so that our admin has better task delineation.		1/04/2020	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
From now on we will be checking and updating ANZSIC codes, metering types and monitoring breach reports regularly.		30/04/2020	

## 2.2. Provision of information (Clause 15.35)

### Code reference

Clause 15.35

### Code related audit information

*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 to the reconciliation manager were reviewed and assessed throughout this document. JC Consulting acts as the agent for Lighthouse Energy to provide information in accordance with Part 15.

### Audit commentary

Compliance with this area was discussed in a number of relevant sections. Compliance was confirmed with regards to timeliness and format of information in accordance with Part 15.

### Audit outcome

Compliant

## 2.3. Data transmission (Clause 20 Schedule 15.2)

### Code reference

Clause 20 Schedule 15.2

### Code related audit information

*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**

JC Consulting downloads data from Metrix, NGCM, and COUP on behalf of Lighthouse Energy.

#### **Audit commentary**

Once metering data is downloaded from the service providers servers it is uploaded to the RM TOOL

The data transfer process was reviewed during the MEPs audit and found compliant.

We sampled four ICPs from MTRX, NGCM and traced them from the original files to volume information created by JC Consulting, and uploading to the reconciliation managers system.

#### **Audit outcome**

Compliant

### **2.4. Audit trails (Clause 21 Schedule 15.2)**

#### **Code reference**

*Clause 21 Schedule 15.2*

#### **Code related audit information**

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

*The audit trail must cover all archived data in accordance with clause 18.*

*The logs of communications and processing activities must form part of the audit trail, including if automated processes are in operation.*

*Logs must be printed and filed as hard copy or maintained as data files in a secure form, along with other archived information.*

*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 for the person who performed the activity (clause 21(4)(c)).*

#### **Audit observation**

We checked the audit trail for all data gathering, validation, and correction.

#### **Audit commentary**

JC Consulting retains an audit trail of downloaded data via FileZilla.

The audit trail of reconciliation files is recorded by the RM portal.

The audit trail of data validation, estimation and creation of reconciliation files is recorded in the RM TOOL.

We confirmed, during the JC Consulting audit, that the audit trail for data gathering, validation and processing functions is archived. For any changes to data, logs are created showing the date and time of the activity, an activity identifier, and the operator identifier.

#### **Audit outcome**

Compliant

### **2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)**

#### **Code reference**

*Clause 10.4*

#### **Code related audit information**

*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**

Lighthouse Energy provided a copy of the Terms and Conditions which was reviewed by the Authority.

#### **Audit commentary**

The Terms and Conditions provide relative information for a customer to meet the requirements of this clause.

#### **Audit outcome**

Compliant

### **2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6))**

#### **Code reference**

*Clause 10.7(2),(4),(5) and (6)*

#### **Code related audit information**

*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.*

*The trader must use its best endeavours to provide access:*

- *in accordance with any agreements in place*
- *in a manner and timeframe which is appropriate in the circumstances.*

*If the trader has a consumer, the trader must obtain authorisation from the customer for access to the metering installation, otherwise it must arrange access to the metering installation.*



*The reconciliation participant must provide any necessary facilities, codes, keys or other means to enable the party to obtain access to the metering installation by the most practicable means.*

#### **Audit observation**

Lighthouse Energy provided their Terms and Conditions dated 8 August 2017.

#### **Audit commentary**

A copy of the Terms and Conditions was sighted and contains required information for access arrangements. It is covered in section 7 "Access to property".

#### **Audit outcome**

Compliant

### **2.7. Physical location of metering installations (Clause 10.35(1)&(2))**

#### **Code reference**

*Clause 10.35(1)&(2)*

#### **Code related audit information**

*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**

All metering installations traded by Lighthouse Energy are category 1.

#### **Audit commentary**

Based on the category of metering installations traded by Lighthouse Energy we confirm compliance. Lighthouse Energy is not responsible for any metering installations with loss compensation factors.

#### **Audit outcome**

Compliant

### **2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)**

#### **Code reference**

*Clause 11.15B*

#### **Code related audit information**

*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 under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and
- the terms of the assigned contract to be amended on such an assignment to—
- the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or
- such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii); and
- the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and
- the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and
- the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).

The terms specified in subclause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

#### Audit observation

Lighthouse Energy provided their Terms and Conditions dated 8 August 2017.

#### Audit commentary

The compliance with this clause is covered in section 9.12 of the Terms and Conditions.

#### Audit outcome

Compliant

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

#### Code reference

Clause 10.32

#### Code related audit information

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

- accept responsibility for their obligations in Parts 10, 11 and 15 for the point of connection; and
- have an arrangement with an MEP to provide 1 or more metering installations for the point of connection.

#### Audit observation

Lighthouse Energy will not be dealing with new connections for some time. When the company decides to take on new connections they will document the process.

#### Audit commentary

We reviewed the LIS file dated 17/04/20 and confirm no new connections have been traded by the company since the last audit. The company is not planning to trade new installations in the near future.

#### Audit outcome

Compliant

## 2.10. Temporary Electrical Connection of an ICP (Clause 10.33)

### Code reference

Clause 10.33(1)

### Code related audit information

*A reconciliation participant may temporarily electrically connect a point of connection, or authorise a MEP to temporarily electrically connect a point of connection, only if:*

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*
- 

### Audit observation

As described in **section 2.9**, Lighthouse Energy will not be dealing with new connections in the near future.

### Audit commentary

Compliance was not assessed because there were no new connections.

### Audit outcome

Not applicable

## 2.11. Electrical Connection of Point of Connection (Clause 10.33A)

### Code reference

Clause 10.33A(1)

### Code related audit information

*A reconciliation participant may electrically connect or authorise the electrical connection of a point of connection only if:*

- *for a point of connection to the grid – the grid owner has approved the connection*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP*
- *if the ICP has metered load, 1 or more certified metering installations are in place*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

### Audit observation

As described in **section 2.9**, Lighthouse Energy will not be dealing with new connections in the near future.

### Audit commentary

The process as such is not documented. The document “Additional Process Information” lists those processes, that are not included in other processes, that are of a nature that do not require a full document to be created or will be drafted up at a later date. When Lighthouse Energy decides to take on new connections they will document the process.

### Audit outcome

Not applicable

## 2.12. Arrangements for line function services (Clause 11.16)

### Code reference

*Clause 11.16*

### Code related audit information

*Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must ensure that it, or its customer, has made any necessary arrangements for the provision of line function services in relation to the relevant ICP*

*Before providing the registry manager with any information in accordance with clause 11.7(2) or clause 11.18(4), a trader must have entered into an arrangement with an MEP for each metering installation at the ICP.*

### Audit observation

Lighthouse Energy has an arrangement with VECT, HAWK, COUP, ORON, WAIK and MEPs. Agreements are always in place before any ICP is switched in.

### Audit commentary

Lighthouse Energy demonstrated the existence of UoSA with networks and MEPs.

### Audit outcome

Compliant

## 2.13. Arrangements for metering equipment provision (Clause 10.36)

### Code reference

*Clause 10.36*

### Code related audit information

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

### Audit observation

Lighthouse Energy provided a copy of signed agreements with Metrix, AMS, COUP, LMGL and ARCS.

### Audit commentary

Compliance confirmed based on a review of the relevant documents.

### Audit outcome

Compliant



### 3. MAINTAINING REGISTRY INFORMATION

#### 3.1. Obtaining ICP identifiers (Clause 11.3)

##### Code reference

Clause 11.3

##### Code related audit information

*The following participants must, before assuming responsibility for certain points of connection on a local network or embedded network, obtain an ICP identifier for the point of connection:*

- 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.*

*ICP identifiers must be obtained for points of connection at which any of the following occur:*

- a consumer purchases electricity from a trader 11.3(3)(a)*
- a trader purchases electricity from an embedded generator 11.3(3)(b)*
- a direct purchaser purchases electricity from the clearing manager 11.3(3)(c)*
- an embedded generator sells electricity directly to the clearing manager 11.3(3)(d)*
- a network is settled by differencing 11.3(3)(e)*
- there is a distributor status ICP on the parent network point of connection of an embedded network or at the point of connection of shared unmetered load. 11.3(3)(f)*

##### Audit observation

As described in **section 2.9**, Lighthouse Energy does not trade new connections. The LIS file dated 15/04/20 was analysed.

##### Audit commentary

Analysis of the LIS file confirmed that Lighthouse Energy only trades in already established connections. When the company decides to take on new connections they will document the process.

##### Audit outcome

Compliant

#### 3.2. Providing registry information (Clause 11.7(2))

##### Code reference

Clause 11.7(2)

##### Code related audit information

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

##### Audit observation

According to the switching process, the company checks each ICPs information in the registry before the ICP is accepted.

#### Audit commentary

We analysed the LIS file and confirm that the company provided all information to the registry for installations at which they trade energy.

#### Audit outcome

Compliant

### 3.3. Changes to registry information (Clause 10 Schedule 11.1)

#### Code reference

Clause 10 Schedule 11.1

#### Code related audit information

*If information provided by a trader to the registry manager about an ICP changes, the trader must provide written notice to the registry manager of the change no later than 5 business days after the change.*

#### Audit observation

We reviewed the EDA file for the period 01/11/18 to 15/04/20.

#### Audit commentary

Status update	Year	Total number of updates	No of updates within 5BD	No of updates later than 5BD	Average notification days [BD]	Percentage compliant
Change to Active (2,0)	2020	27	14	13	11.03	48%
Trader (NT updates and MEP nominations are excluded)	2018	0				
	2020	21	12	9	5.7	57%
MEP nomination	2018	0				
	2020	3	1	2	36	33.3%

There was a small number of transactions in the period covered by this audit.

MEP nominations were for installations where non-AMI meters are installed. FCLM accepted nominations. It will be a long time before new meters are installed because of Covid19. The company is considering using Wells to read meters on their behalf.

#### Audit outcome

Non-compliant

Non-compliance	Description
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Audit Ref: 3.3 With: 10 of Schedule 11.1  From: 01-Nov-18 To: 15-Apr-20	Backdated transactions in the registry  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they require some improvement to update registry in timely manner. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
We have discussed this within team and process reviewed			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
From now on using switch breach report regularly to check		30/04/2020	

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

#### Code reference

Clause 11.18

#### Code related audit information

*A trader becomes responsible for an ICP when the trader is recorded in the registry as being responsible for the ICP.*

*A trader ceases to be responsible for an ICP if:*

- *another trader is recorded in the registry as accepting responsibility for the ICP (clause 11.18(2)(a)); or*
- *the ICP is decommissioned in accordance with clause 20 of Schedule 11.1 (clause 11.18(2)(b)).*
- *if an ICP is to be decommissioned, the trader who is responsible for the ICP must (clause 11.18(3)):*
  - o *arrange for a final interrogation to take place prior to or upon meter removal (clause 11.18(3)(a)); and*
  - o *advise the MEP responsible for the metering installation of the decommissioning (clause 11.18(3)(b)).*

*A trader who is responsible for an ICP (excluding UML) must ensure that an MEP is recorded in the registry for that ICP (clause 11.18(4)).*

*A trader must not trade at an ICP (excluding UML) unless an MEP is recorded in the registry for that ICP (clause 11.18(5)).*



### Audit observation

The LIS file dated 07/04/2020 was analysed and we confirm that all ICPs have a MEP recorded in the registry.

### Audit commentary

Lighthouse Energy fully understand that as soon as they are recorded in the registry as accepting responsibility, the responsibility will cease only when an ICP switches out to another trader and its code is recorded in the registry.

Lighthouse Energy is aware of their responsibility to notify the MEP where an ICP is to be decommissioned and ask to obtain a final reading.

### Audit outcome

Compliant

## 3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1)

### Code reference

*Clause 9 Schedule 11.1*

### Code related audit information

*Each trader must provide the following information to the registry manager for each ICP for which it is recorded in the registry as having responsibility:*

- a) the participant identifier of the trader, as approved by the Authority (clause 9(1)(a))*
- b) the profile code for each profile at that ICP, as approved by the Authority (clause 9(1)(b))*
- c) the metering equipment provider for each category 1 metering or higher (clause 9(1)(c))*
- d) the type of submission information the trader will provide to the RM for the ICP (clause 9(1)(ea))*
- e) if a settlement type of UNM is assigned to that ICP, either:*
  - the code ENG if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or*
  - in all other cases, the daily average kWh of unmetered load at the ICP (clause 9(1)(f)(ii)).*
  - the type and capacity of any unmetered load at each ICP (clause 9(1)(g))*
  - the status of the ICP, as defined in clauses 12 to 20 (clause 9(1)(j))*
  - except if the ICP exists for the purposes of reconciling an embedded network or the ICP has distributor status, the trader must provide the relevant business classification code applicable to the customer (clause 9(1)(k)).*

*The trader must provide information specified in (a) to (j) above within 5 business days of trading (clause 9(2)).*

*The trader must provide information specified in 9(1)(k) no later than 20 business days of trading (clause 9(3))*

### Audit observation

Registry files such as LIS, EDA and the Audit Compliance report were examined.

### Audit commentary

The analyses of the EDA files showed that Lighthouse Energy provided all required information to the registry within the timeframe set out in this clause. The company does not trade new installations.

### Audit outcome

Compliant

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

#### Code reference

Clause 9 (1)(k) of Schedule 11.1

#### Code related audit information

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

#### Audit observation

We analysed the LIS file dated 15/04/20.

#### Audit commentary

A review of the LIS file found that 4 ICPs (0005107431RN31F, 0007176845RND2F, 1001245363LCA5A, and 1001283928UN745) do not have a valid ANZSIC code.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: 9(1)(k) of Schedule 11.1  From: 01-Nov-18 To: 15-Apr-20	Incorrect ANZSIC code for 4 ICPs  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they require some improvement. The company needs to refine their process of checking the validity of ANZSIC code when ICP switches in. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
Discussed with team, taken on new team, process reviewed			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will be checking ANSIC codes on switch in			

### 3.7. Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1)

#### Code reference

Clause 9(1)(f) of Schedule 11.1

### Code related audit information

*if a settlement type of UNM is assigned to that ICP, the trader must populate:*

*the code ENG - if the load is profiled through an engineering profile in accordance with profile class 2.1 (clause 9(1)(f)(i)); or*

*the daily average kWh of unmetered load at the ICP - in all other cases (clause 9(1)(f)(ii)).*

### Audit observation

The LIS file was analysed. The process for managing unmetered load was examined.

### Audit commentary

According to the documentation provided by Lighthouse Energy, it is not their intention to take on unmetered ICPs. If UML is found at a later date, the company will have a discussion with the customer regarding having metering put in place or switching to another retailer. If this is not possible they will have JC Consulting create consumption based on the daily kWh information either from the distributor or the customer. Lighthouse Energy will update the registry with the required (or as much as we have at hand) UML information immediately on finding any UML.

### Audit outcome

Compliant

## 3.8. Management of “active” status (Clause 17 Schedule 11.1)

### Code reference

*Clause 17 Schedule 11.1*

### Code related audit information

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

- *the associated electrical installations are electrically connected (clause 17(1)(a))*
- *the trader must provide information related to the ICP in accordance with Part 15, to the reconciliation manager for the purpose of compiling reconciliation information (clause 17(1)(b)).*

*Before an ICP is given the “active” status, the trader must ensure that:*

- *the ICP has only 1 customer, embedded generator, or direct purchaser (clause 17(2)(a))*
- *the electricity consumed is quantified by a metering installation or a method of calculation approved by the Authority (clause 17(2)(b)).*

### Audit observation

The LIS file and EDA files were examined. The process for status change was discussed during the audit.

### Audit commentary

The LIS file showed that all ICPs have the status “active” assigned. All installations were metered by certified installations. A review of the EDA file confirmed that there were 27 updates of the status to “active” during the period covered by this audit. All reconnection was done remotely by MEPS. As per section 3.3, some updates were up[loaded later than 5 BS.

### Audit outcome

Compliant

## 3.9. Management of “inactive” status (Clause 19 Schedule 11.1)

### Code reference

Clause 19 Schedule 11.1

### Code related audit information

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

- *electricity cannot flow at that ICP (clause 19(a)); or*
- *submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information (clause 19(b)).*

### Audit observation

The LIS file and EDA files were examined. The process for status change was discussed during the audit.

### Audit commentary

A review of the EDA file confirmed that there have been no status changes to “inactive” during the period covered by this audit.

### Audit outcome

Compliant

## 3.10. ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1)

### Code reference

Clause 15 Schedule 11.1

### Code related audit information

*If an ICP has had the status of "New" or "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

It is a distributor's obligation to monitor an ICP which has had the status of “New” or “Ready” for 24 calendar months or more. It is expected that a trader be able to respond to such queries from distributors.

### Audit commentary

Lighthouse Energy has not received such a query from any distributor because the company does not trade new connections.

### Audit outcome

Not applicable

## 4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

### 4.1. Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)

#### Code reference

*Clause 2 Schedule 11.3*

#### Code related audit information

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

#### Audit observation

The standard switch process was examined to assess compliance. The EDA files and the Switch Breach Report for the audit period were reviewed.

#### Audit commentary

During the audit period Lighthouse Energy sent 136 NTTR. During the audit period all ICPs gained were metering installations category 1. The correct type of switch was used. No switches were backdated.

Lighthouse Energy is aware of the requirements of the Fair Trading Act 1986.

#### Audit outcome

Compliant

### 4.2. Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3)

#### Code reference

*Clauses 3 and 4 Schedule 11.3*

#### Code related audit information

*Within 3 business days after receiving notice of a switch from the registry manager, 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 5 business days after the date of notification. The losing trader must then:*

- *provide acknowledgement of the switch request by (clause 3(a) of Schedule 11.3):*
- *providing the proposed event date to the registry manager and a valid switch response code (clause 3(a)(i) and (ii) of Schedule 11.3); or*
- *providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).*

*When establishing an event date for clause 4, the losing trader may disregard every event date established by the losing trader for an ICP for which when the losing trader received notice from the registry manager under clause 22(a) the losing trader had been responsible for less than 2 months.*

#### Audit observation

The standard switch process was examined to assess compliance. The EDA files and the Switch Breach Report for the audit period were reviewed.

#### Audit commentary

The company received 7 NTTR from gaining traders. Lighthouse Energy responded to all of them in the correct format. All responses were late by 2 to 36 BS.

The company does not use the Switch Breach Report provided by the registry. They relied on notification from their system, which was corrupted in November last year.

The company met compliance with clause 4(1)(b) of Schedule 11.1.

We identified two ICPs (0000113137UN3BD and 0000196192UNEE8) for which Lighthouse Energy did establish a proposed event date before the date of receipt of notification.

Three ICPs listed above did not meet compliance because of backdating a switch event date

- 0000113137UN3BD – NT was received on 4/11/19, CTCT requested 04/11/19, LITE proposed an event date as 1/11/19
- 0000196192UNEE8 – NT was received on 15/11/19, TRUS requested 14/11/19, LITE proposed an event date as 13/11/19.
- 0000650916UNEDE – NT was received on 15/10/19, CTCT requested 15/10/19, LITE proposed an event date as 31/10/19, which is more than 10 BS.

#### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.2</p> <p>With: 3 &amp; 4(1)(a) of Schedule 11.3</p> <p>From: 04-Oct-19</p> <p>To: 31-Mar-20</p>	<p>Incorrect proposed event date for 3 ICPs; 7 AN files late</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as moderate as they require some improvement. The company needs to follow their documented processes. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low
Actions taken to resolve the issue	
Completion date	Remedial action status

Discussed with team and reviewed processes		Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
We will be regularly monitoring Switch Breach reports	30/04/2020	

#### 4.3. Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)

##### Code reference

Clause 5 Schedule 11.3

##### Code related audit information

*If the losing trader provides information to the registry manager in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than 5 business days after the event date, the losing trader must complete the switch by:*

- *providing event date to the registry manager (clause 5(a)); and*
- *provide to the gaining trader a switch event meter reading as at the event date, for each meter or data storage device that is recorded in the registry with accumulator of C and a settlement indicator of Y (clause 5(b)); and*
- *if a switch event meter reading is not a validated reading, provide the date of the last meter reading (clause 5(c)).*

##### Audit observation

The Switch Breach Report for the audit period was analysed.

##### Audit commentary

6 CS files were sent for standard switches. 3 CS files were sent late.

We checked the information in all CS files which we found correct, except daily kWh consumption.

The daily kWh consumption calculation was not correct because it is calculated as average consumption over a period of supply, which is non-compliant. The current registry specification says the average daily consumption is expected to be calculated using the volume from two most recent validated meter reads divided by the number of days between them. This method gives false results if validated reads are received daily, but it is the current Code interpretation.

##### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.3 With: 5 of Schedule 11.3 From: 04-Nov-19 To: 16-Dec-19	3 CS files late; average daily consumption methodology is incorrect Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they require some improvement., using a Switch Breach report on daily basis should help. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
Discussed with team and reviewed processes			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will be changing calculation methodology		30/04/2020	

#### 4.4. Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)

##### Code reference

Clause 6(1) and 6A Schedule 11.3

##### Code related audit information

*The losing trader and the gaining trader must both use the same switch event meter reading as determined by the following procedure:*

- *if the switch event meter reading provided by the losing trader differs by less than 200 kWh from a value established by the gaining trader, the gaining trader must use the losing trader's validated meter reading or permanent estimate (clause 6(a)); or*
- *the gaining trader may dispute the switch meter reading if the validated meter reading or permanent estimate provided by the losing trader differs by 200 kWh or more. (clause 6(b)).*

*If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 4 calendar months of the registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by 2 validated meter readings.*

- *the losing trader can choose not to accept the reading, however, must advise the gaining trader no later than 5 business days after receiving the switch event meter reading from the gaining trader (clause 6A(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 6A(b)).*

##### Audit observation

The Switch Breach Report and EDA file for the audit period was analysed.

##### Audit commentary

Lighthouse Energy received 128 CS files for a standard switch. We selected 10 CS files and confirm that switch event reads were used by JC Consulting as start reads for reconciliation purposes.



The company received 2 RR files, which were accepted. We confirm, they were used for reconciliation purposes.

#### **Audit outcome**

Compliant

#### **4.5. Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3)**

##### **Code reference**

*Clause 6(2) and (3) Schedule 11.3*

##### **Code related audit information**

*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 in the registry: and*

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b));*
- *the gaining trader within 5 business days after receiving final information from the registry manager, 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 EDA file was analysed.

##### **Audit commentary**

No switches which would require compliance with this clause.

#### **Audit outcome**

Compliant

#### **4.6. Disputes - standard switch (Clause 7 Schedule 11.3)**

##### **Code reference**

*Clause 7 Schedule 11.3*

##### **Code related audit information**

*A losing trader or gaining trader may give written notice to the other that it disputes a switch event meter reading provided under clauses 1 to 6. Such a dispute must be resolved in accordance with clause 15.29 (with all necessary amendments).*

##### **Audit observation**

There were no disputes with losing retailers. If such a situation were to occur in the future it would be resolved in accordance with this clause.

##### **Audit commentary**

Lighthouse Energy confirmed that no disputes occurred in the period covered by this audit which would require a resolution. Lighthouse Energy stated that they will not decline to accept another retailer's validated meter reading or permanent estimate if they are reasonable and appropriate in the applicable circumstances.

#### **Audit outcome**

Compliant

#### 4.7. Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3)

##### Code reference

Clause 9 Schedule 11.3

##### Code related audit information

*The switch move process applies where a gaining trader has an arrangement with a customer or embedded generator to trade electricity at an ICP using non half-hour metering or an unmetered ICP, or to assume responsibility for such an ICP, and no other trader has an agreement to trade electricity at that ICP, this is referred to as a switch move and the following provisions apply:*

*If the “uninvited direct sale agreement” applies, 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.*

*In the event of a switch move, the gaining trader must advise the registry manager of a switch and the proposed event date no later than 2 business days after the arrangement comes into effect.*

*In its advice to the registry manager the gaining trader must include:*

- *a proposed event date (clause 9(2)(a)); and*
- *that the switch type is "MI" (clause 9(2)(b)); and*
- *one or more profile codes of a profile at the ICP. (clause 9(2)(c))*

##### Audit observation

Lighthouse Energy provided the Event Listing file (EDA) and the Switch Breach History detail report for the time period. The switch move process was examined, we found it compliant.

##### Audit commentary

The company sent 67 NTMI. During the audit period all ICPs gained were category 1 metering installations. The correct type of switch was used.

The company is aware of the requirements of the Fair Trading Act 1986.

##### Audit outcome

Compliant

#### 4.8. Losing trader provides information - switch move (Clause 10(1) Schedule 11.3)

##### Code reference

Clause 10(1) Schedule 11.3

##### Code related audit information

*10(1) Within 5 business days after receiving notice of a switch move request from the registry manager—*

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:*
  - *confirmation of the switch event date; and*
  - *a valid switch response code; and*
  - *final information as required under clause 11; or*
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—*

- is not earlier than the gaining trader's proposed event date, and
- is no later than 10 business days after the date the losing trader receives notice; or
- 10(1)(c) request that the switch be withdrawn in accordance with clause 17.

#### Audit observation

Lighthouse Energy provided the Event Listing file (EDA) and the Switch Breach History detail report for the time period.

#### Audit commentary

The company received 18 NTMI from gaining traders. Lighthouse Energy sent 17 AN files.

The company does not use the Switch Breach Report provided by the registry. They relied on notification from their system, which was corrupted in November last year.

We identified the following non-compliances:

- 12 AN files were late by 2 to 6 business days.
- No AN file sent for 4 ICPs (0122074025LCAA5, 0180841300LCOF2, 0177385618LC07D, and 0000233421UN8E3)
- The event date proposed by the gaining trader was not accepted for 9 ICPs and for 3 ICPs the proposed date by LITE was earlier than the gaining trader's proposed event date, which is not compliant
  - 0528740791LCC4D – NT was received on 19/11/19, HNET requested 18/11/19, LITE proposed an event date as 17/11/19
  - 1002058531LC503 – NT was received on 11/12/19, MEEN requested 10/12/19, LITE proposed an event date as 01/12/19.
  - 1002056946LC958 – NT was received on 11/03/20, TRUS requested 07/03/20, LITE proposed an event date as 01/03/20

21 CS files were sent. We checked the information in all CS files, and we found the information was correct except, daily kWh consumption. 8 ICPs had the same for Actual Transfer Date and the Last Read Date the Transfer Date, which could indicate incorrect Switch Event Meter Reading. We checked 5 ICPs, only one was incorrect (1002055960LC762). The read provided was for 27/11/19, instead 26/11/19.

Daily kWh consumption calculation was not correct because it is calculated as average consumption over of period of supply, which is non-compliant. The current registry specification says the average daily consumption is expected to be calculated using the volume from two most recent validated meter reads divided by the number of days between them. This method gives false results if validated reads are received daily, but it is the current Code interpretation.

#### Audit outcome

Non-compliant

Non-compliance	Description
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Audit Ref: 4.8 With: 10(1) of Schedule 11.3  From: 19-Nov-19  To: 24-Mar-20	Incorrect proposed event date for 3 ICPs; 12 AN files late; daily kWh consumption is incorrect  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as moderate as they require some improvement. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low	
Actions taken to resolve the issue	Completion date	Remedial action status
Discussed with team and reviewed processes		Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
We will be regularly monitoring Switch Breach reports and changing read calculation methodologies.	30/04/2020	

#### 4.9. Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)

##### Code reference

Clause 10(2) Schedule 11.3

##### Code related audit information

*If the losing trader determines a different date, then within 10 business days of receiving notice the losing trader must also complete the switch by providing to the registry manager as described in subclause (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 Event Listing file (EDA) and the Switch Breach Report were analysed.

##### Audit commentary

The analyses showed that for 4 ICPs, LITE determined a different switch date, which was no more than 10 business days after the event date proposed by the losing trader.

Final information (CS file ) for 0234342765LC477 and 0227483049LCC65 was sent later than 10 business days.

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 4.9  With: 10(2) of Schedule 11.3  From: 22-Jan-20  To: 16-Mar-20	2 CS files sent later than 10 BD  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they require some improvement. Using daily a Switch Breach report should be of great assistance. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
More training will be given to staff			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will be regularly monitoring Switch Breach reports.		30/04/2020	

### 4.10. Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)

#### Code reference

Clause 11 Schedule 11.3

#### Code related audit information

The losing trader must provide final information to the registry manager for the purposes of clause 10(1)(a)(ii), including—

- the event date (clause 11(a)); and
- a switch event meter reading as at the event date for each meter or data storage device that is recorded in the registry with an accumulator type of C and a settlement indicator of Y (clause 11(b)); and
- if the switch event meter reading is not a validated meter reading, the date of the last meter reading of the meter or storage device. (clause 11(c)).

#### Audit observation

The EDA for the audit period was analysed.

#### Audit commentary

We analysed the content of all CS files for switch move. Lighthouse Energy provided the estimated switch event meter reading for three ICPs (0177385618LC07D, 0122074025LCAA5 and 0180841300LC0F2) because the actual read was not available. The date of the last meter reading was provided.

#### Audit outcome

Compliant

#### 4.11. Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3)

##### Code reference

Clause 12 Schedule 11.3

##### Code related audit information

*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 advise 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 date the registry manager gives the gaining trader written notice of having received information about the switch completion, 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)):*
- *advise 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 in 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 5 business days after receiving final information from the registry manager, 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 Switch Breach Report and EDA file for the audit period was analysed.

##### Audit commentary

Lighthouse Energy received 51 CS files for switch move. We selected 5 CS files and confirm that switch event reads were used by JC Consulting as start reads for reconciliation purposes.

The company received RR file for 0000227957UN758, which was accepted. We confirm that the accepted read was used for reconciliation purposes.

## Audit outcome

Compliant

### 4.12. Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3)

#### Code reference

Clause 14 Schedule 11.3

#### Code related audit information

*The gaining trader switch process applies when a trader has an arrangement with a customer or embedded generator to trade electricity at an ICP at which the losing trader trades electricity with the customer or embedded generator, and one of the following applies at the ICP:*

- *the gaining trader will trade electricity through a half hour metering installation that is a category 3 or higher metering installation; or*
- *the gaining trader will trade electricity through a non-AMI half hour metering installation and the losing trader trades electricity through a non-AMI non half hour metering installation; or*
- *the gaining trader will trade electricity through a non-AMI non half hour metering installation and the losing trader trades electricity through a non-AMI half hour metering installation*

*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 manager of the switch and expected event date no later than 3 business days after the arrangement comes into effect.*

*14(2) The gaining trader must include in its advice to the registry manager:*

- a) a proposed event date; and*
- b) that the switch type is HH.*

*14(3) The proposed event date must be a date that is after the date on which the gaining trader advises the registry manager, unless clause 14(4) applies.*

*14(4) The proposed event date is a date before the date on which the gaining trader advised the registry manager, if:*

- 14(4)(a) – the proposed event date is in the same month as the date on which the gaining trader advised the registry manager; or*
- 14(4)(b) – the proposed event date is no more than 90 days before the date on which the gaining trader advises the registry manager and this date is agreed between the losing and gaining traders.*

#### Audit observation

The EDA file for the audit period was analysed.

#### Audit commentary

Lighthouse Energy did not use this type of switch to gain any customers in the audit period.

#### Audit outcome

Compliant

#### 4.13. Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)

##### Code reference

*Clause 15 Schedule 11.3*

##### Code related audit information

*Within 3 business days after the losing trader is informed about the switch by the registry manager, the losing trader must:*

*15(a) - provide to the registry manager 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 EDA file for the audit period was analysed.

##### Audit commentary

Lighthouse Energy did not use this type of switch to gain any customers in the audit period.

##### Audit outcome

Compliant

#### 4.14. Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3)

##### Code reference

*Clause 16 Schedule 11.3*

##### Code related audit information

*The gaining trader must complete the switch no later than 3 business days, after receiving the valid switch response code, by advising the registry manager of the event date.*

*If the ICP is being electrically disconnected, or if metering equipment is being removed, the gaining trader must either-*

*16(a)- give the losing trader or MEP for the ICP an opportunity to interrogate the metering installation immediately before the ICP is electrically disconnected or the metering equipment is removed; or*

*16(b)- carry out an interrogation and, no later than 5 business days after the metering installation is electrically disconnected or removed, advise the losing trader of the results and metering component numbers for each data channel in the metering installation.*

##### Audit observation

The EDA file for the audit period was analysed.

##### Audit commentary

Lighthouse Energy did not use this type of switch to gain any customers in the audit period.

##### Audit outcome

Compliant

#### 4.15. Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3)



## Code reference

Clauses 17 and 18 Schedule 11.3

## Code related audit information

*A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of 2 calendar months after the event date of the switch.*

*If a trader requests the withdrawal of a switch, the following provisions apply:*

- *for each ICP, the trader withdrawing the switch request must provide the registry manager with (clause 18(c)):*
  - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
  - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 5 business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager 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. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c). All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))*
- *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 receiving notice from the registry manager 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. (clause 18(f))*

## Audit observation

The EDA file and the Audit Compliance Report for the audit period was analysed.

## Audit commentary

Lighthouse Energy sent 3 NW files, two of them were at the customer's request and one was for an incorrect switch type. All of them were sent within 2 calendar months after the event date of the switch.

The company received 44 NW files. 13 AW files were sent as the response to NW files were sent later than 5 business days.

## Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.15 With: 18 of Schedule 11.3 From: 12-Sep-19 To: 02-Mar-20	13 AW files were sent later than 5 business days Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2

Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as moderate as they require some improvement. There was minor impact on settlement outcomes because of the small number of ICPs. Audit risk rating is low		
Actions taken to resolve the issue		Completion date	Remedial action status
Have discussed with team, taken on new team, process reviewed			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
From now on using switch breach report		30/04/2020	

#### 4.16. Metering information (Clause 21 Schedule 11.3)

##### Code reference

Clause 21 Schedule 11.3

##### Code related audit information

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

*21(a)- 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.*

*21(b) and (c) - 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 the switching process was examined. All reads are received from MEPS.

##### Audit commentary

The company understands that it would be their responsibility to obtain any additional read and pay for it.

##### Audit outcome

Compliant

#### 4.17. Switch saving protection (Clause 11.15AA to 11.15AB)

##### Code reference

Clause 11.15AA to 11.15AB

### Code related audit information

*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

Lighthouse Energy is part of the Switch saving protection program.

### Audit commentary

The Win-back process was discussed during the audit. The company policy is not to contact a losing customer to offer “a better deal”.

### Audit outcome

Compliant

## 5. MAINTENANCE OF UNMETERED LOAD

### 5.1. Maintaining shared unmetered load (Clause 11.14)

#### Code reference

Clause 11.14

#### Code related audit information

*The trader must adhere to the process for maintaining shared unmetered load as outlined in clause 11.14:*

*11.14(2) - The distributor must give written notice to the traders responsible for the ICPs across which the unmetered load is shared, of the ICP identifiers of the ICPs.*

*11.14(3) - A trader who receives such a notification from a distributor must give written notice to the distributor if it wishes to add or omit any ICP from the ICPs across which unmetered load is to be shared.*

*11.14(4) - A distributor who receives such a notification of changes from the trader under (3) must give written notice to the registry manager and each trader responsible for any of the ICPs across which the unmetered load is shared.*

*11.14(5) - If a distributor becomes aware of any change to the capacity of a shared unmetered load ICP or if a shared unmetered load ICP is decommissioned, it must give written notice to all traders affected by that change as soon as practicable after that change or decommissioning.*

*11.14(6) - Each trader who receives such a notification must, as soon as practicable after receiving the notification, adjust the unmetered load information for each ICP in the list for which it is responsible to ensure that the entire shared unmetered load is shared equally across each ICP.*

*11.14(7) - A trader must take responsibility for shared unmetered load assigned to an ICP for which the trader becomes responsible as a result of a switch in accordance with Part 11.*

*11.14(8) - A trader must not relinquish responsibility for shared unmetered load assigned to an ICP if there would then be no ICPs left across which that load could be shared.*

*11.14(9) - A trader can change the status of an ICP across which the unmetered load is shared to inactive status, as referred to in clause 19 of Schedule 11.1. In that case, the trader is not required to give written notice to the distributor of the change. The amount of electricity attributable to that ICP becomes UFE.*

#### Audit observation

The LIS file and the Audit Compliance Report were analysed.

#### Audit commentary

Lighthouse Energy has not traded SUML in the period covered by this audit.

There are no shared unmetered load ICPs traded by Lighthouse Energy. JC Consulting checks weekly, to see if any of the networks have not entered an historic SUML, which will be reconciled if such a situation occurs.

#### Audit outcome

Compliant

### 5.2. Unmetered threshold (Clause 10.14 (2)(b))

#### Code reference

Clause 10.14 (2)(b)

#### Code related audit information

*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

The LIS file and the Audit Compliance Report were analysed.

#### Audit commentary

Lighthouse Energy does not trade unmetered load.

#### Audit outcome

Compliant

### 5.3. Unmetered threshold exceeded (Clause 10.14 (5))

#### Code reference

Clause 10.14 (5)

#### Code related audit information

*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:*
  - o *the date the limit was calculated or estimated to have been exceeded*
  - o *the details of the corrective measures that the retailer proposes to take or is taking to reduce the unmetered load.*

#### Audit observation

The LIS file and the Audit Compliance Report were analysed.

#### Audit commentary

Lighthouse Energy does not trade unmetered load. This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

### 5.4. Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B)

#### Code reference

Clause 11 Schedule 15.3, Clause 15.37B

#### Code related audit information

*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**

The LIS file was analysed.

#### **Audit commentary**

Lighthouse Energy does not trade a distributed unmetered load and do not have such plans. This clause is not applicable. Compliance was not assessed.

#### **Audit outcome**

Not applicable

## 6. GATHERING RAW METER DATA

### 6.1. Electricity conveyed & notification by embedded generators(Clause 10.13, Clause 10.24 and 15.13)

#### Code reference

*Clause 10.13, Clause 10.24 and Clause 15.13*

#### Code related audit information

*A participant must use the quantity of electricity measured by a metering installation as the raw meter data for the quantity of electricity conveyed through the point of connection.*

*This does not apply if data is estimated or gifted in the case of embedded generation under clause 15.13.*

*A trader must, for each electrically connected ICP that is not also an NSP, and for which it is recorded in the registry as being responsible, ensure that:*

- *there is 1 or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

*An embedded generator must give notification to the reconciliation manager for an embedded generating station, if the intention is that the embedded generator will not be receiving payment from the clearing manager or any other person through the point of connection to which the notification relates.*

#### Audit observation

The LIS file was analysed. All installations traded by Lighthouse Energy are metered. No subtraction method is used to determine submission information provided to the reconciliation manager.

#### Audit commentary

Lighthouse Energy does not trade ICPs with embedded generation. There are no plans to trade such installations in the near future.

#### Audit outcome

Compliant

### 6.2. Responsibility for metering at GIP(Clause 10.26 (6), (7) and (8))

#### Code reference

*Clause 10.26 (6), (7) and (8)*

#### Code related audit information

*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 3 months for the grid owner to review and comment on the design*
- *respond within 3 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**

Lighthouse Energy does not have installations connected directly to the grid.

#### **Audit commentary**

This clause is not applicable to Lighthouse Energy. Compliance was not assessed.

#### **Audit outcome**

Not applicable

### **6.3. Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)**

#### **Code reference**

*Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3*

#### **Code related audit information**

*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**

The LIS and reconciliation files provided by Lighthouse Energy were examined.

#### **Audit commentary**

Lighthouse Energy uses only the HHR and RPS profile. No control devices are needed therefore they have never approached a MEP asking for a control device to be certified.

#### **Audit outcome**

Compliant

### **6.4. Reporting of defective metering installations (Clause 10.43(2) and (3))**

#### **Code reference**

*Clause 10.43(2) and (3)*

#### **Code related audit information**

*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**

The process related to defective installations was examined. Event logs provided by MEPs is monitored by JC Consulting.



### Audit commentary

JC Consulting is validating data provided by MEPs and running reports to identify anomalies in meter readings, which could indicate defective metering installations. Lighthouse Energy has not identified any defective metering installations which could be not fit for purpose.

### Audit outcome

Compliant

## 6.5. Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)

### Code reference

Clause 2 Schedule 15.2

### Code related audit information

*Only a certified reconciliation participant may collect raw meter data, unless only the MEP can interrogate the meter, or the MEP has an arrangement which prevents the reconciliation participant from electronically interrogating the meter:*

*2(2) - The reconciliation participant must collect raw meter data used to determine volume information from the services interface or the metering installation or from the MEP.*

*2(3) - The reconciliation participant must ensure the interrogation cycle is such that it does not exceed the maximum interrogation cycle in the registry .*

*2(4) - The reconciliation participant must interrogate the meter at least once every maximum interrogation cycle.*

*2(5) - When electronically interrogating the meter the participant must:*

- a) ensure the system is to within +/- 5 seconds of NZST or NZDST*
- b) compare the meter time to the system time*
- c) determine the time error of the metering installation*
- d) if the error is less than the maximum permitted error, correct the meter's clock*
- e) if the time error is greater than the maximum permitted error then:*
  - i) correct the metering installation's clock*
  - ii) compare the metering installation's time with the system time*
  - iii) correct any affected raw meter data.*
- f) download the event log.*

*2(6) – The interrogation systems must record:*

- the time*
- the date*
- the extent of any change made to the meter clock.*

### Audit observation

Meter readings are collected by MEPs and downloaded by JC Consulting.

### Audit commentary

Compliance with this clause is assessed during a MEPs audit.

### Audit outcome

Compliant

## 6.6. Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)

### Code reference

*Clause 3(1), 3(2) and 5 Schedule 15.2*

### Code related audit information

*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. Lighthouse Energy does not read meters themselves.

### Audit commentary

LITE trades 5 non-AMI meters. At the time of this audit, the company did not have any arrangements for meter readings.

JC Consulting validates readings provided by MEPs when imported into the RM TOOL.

### Audit outcome

Compliant

## 6.7. NHH meter reading application (Clause 6 Schedule 15.2)

### Code reference

*Clause 6 Schedule 15.2*

### Code related audit information

*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 switch read from the CS file is used as a start read for NHH ICPs. Consecutive readings from MEPs apply from 0000hrs on the day after the last meter interrogation up to and including 2400hrs on the day of the meter interrogation.

### Audit commentary

Compliance confirmed based on scenarios provided to JC Consulting described in **section 12.11**.

#### Audit outcome

Compliant

### 6.8. Interrogate meters once (Clause 7(1) and (2) Schedule 15.2)

#### Code reference

*Clause 7(1) and (2) Schedule 15.2*

#### Code related audit information

*Each reconciliation participant must ensure that a validated meter reading is 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 and used to create volume information.*

*This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.*

*If exceptional circumstances prevent a reconciliation participant from obtaining the validated meter reading, the reconciliation participant is not required to comply with clause 7(1).*

#### Audit observation

The EDA file was examined to identify ICPs which have switched out since the last audit.

#### Audit commentary

Lighthouse Energy lost 21 ICPs since the last audit. All of them were read at least once during the period of supply

#### Audit outcome

Compliant

### 6.9. NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2)

#### Code reference

*Clause 8(1) and (2) Schedule 15.2*

#### Code related audit information

*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

We reviewed Meter Frequency reports created by Lighthouse Energy for Mar'19 to Mar'20. They are sent to the Authority every month by JC Consulting.

#### Audit commentary

The read attainment was met.

#### Audit outcome

Compliant

#### 6.10. NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2)

##### Code reference

Clause 9(1) and (2) Schedule 15.2

##### Code related audit information

*In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 4 months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every 4 months for 90% of the non-half hour metered ICPs.*

*A report is to be sent to the Authority 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

We reviewed Meter Frequency reports created by Lighthouse Energy for Mar'19 to Mar'20. They are sent to the Authority every month by JC Consulting.

##### Audit commentary

The read attainment was not met for Jan'20 and Feb'20 (ISL0661 – 1 ICP) and Mar'20 (ISL066 and BRY0661 – 2 ICPs).

NSP	ICP	Last Read Date
BRY0661	0005224616RNE1E	17/10/19
ISL0661	0007188380RN9DD	24/09/19

##### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.10 With: Audit Ref: 9(1) of Schedule 15.2  From: 01-Jan-20 To: 31-Mar-20	The read attainment was not met for 3 months  Potential impact: None  Actual impact: None  Audit history: None  Controls: Weak  Breach risk rating: 3		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are recorded as moderate, there is a problem with non-AMI reads as there are no reading arrangements. Audit risk rating is low. Minor impact on settlement outcomes.		
Actions taken to resolve the issue		Completion date	Remedial action status

This was in part affected by our systems outage. We have also reviewed our systems and will make alterations		Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Team will ask for reads in events where meters are not compliant and cannot be swapped out in a timely manner	30/04	

#### 6.11. NHH meter interrogation log (Clause 10 Schedule 15.2)

##### Code reference

Clause 10 Schedule 15.2

##### Code related audit information

*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

Meter readings are provided by MEPS.

##### Audit commentary

Assessment with this clause is part of the MEPS audit.

##### Audit outcome

Compliant

#### 6.12. HHR data collection (Clause 11(1) Schedule 15.2)

##### Code reference

Clause 11(1) Schedule 15.2

##### Code related audit information

*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 NGCM.

##### Audit commentary

Assessment with this clause is part of the NGCM's audit.

##### Audit outcome

Compliant

#### 6.13. HHR interrogation data requirement (Clause 11(2) Schedule 15.2)

##### Code reference

*Clause 11(2) Schedule 15.2*

##### Code related audit information

*The following information is collected during each interrogation:*

*11(2)(a) - the unique identifier of the data storage device*

*11(2)(b) - the time from the data storage device at the commencement of the download unless the time is within specification and the interrogation log automatically records the time of interrogation*

*11(2)(c) - the metering information, which represents the quantity of electricity conveyed at the point of connection, including the date and time stamp or index marker for each half hour period. This may be limited to the metering information accumulated since the last interrogation*

*11(2)(d) - the event log, which may be limited to the events information accumulated since the last interrogation*

*11(2)(e) - an interrogation log generated by the interrogation software to record details of all interrogations.*

*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

HHR data is collected by NGCM.

##### Audit commentary

Assessment with this clause is part of the NGCM's audit.

##### Audit outcome

Compliant

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

##### Code reference

*Clause 11(3) Schedule 15.2*

##### Code related audit information

*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**

HHR data is collected by NGCM.

**Audit commentary**

Assessment with this clause is part of the NGCM's audit.

**Audit outcome**

Compliant

## 7. STORING RAW METER DATA

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

#### Code reference

*Clause 13 Schedule 15.2*

#### Code related audit information

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

#### Audit observation

NGCM provides HHR data which is downloaded by JC Consulting.

#### Audit commentary

We reviewed data provided by NGCM and confirm that the trading period duration is 30 minutes. Assessment with this clause is part of the MEPS's audit.

#### Audit outcome

Compliant

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

#### Code reference

*Clause 18 Schedule 15.2*

#### Code related audit information

*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

HHR data is received from NGCM, who archives raw meter data. Lighthouse Energy and JC Consulting keeps a copy of all HHR data.

#### Audit commentary

The RM TOOL used by JC Consulting does not allow the modification of meter readings without an audit trail.

#### Audit outcome

Compliant

### 7.3. Non metering information collected / archived (Clause 21(5) Schedule 15.2)

#### Code reference

*Clause 21(5) Schedule 15.2*

#### Code related audit information



*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**

This was discussed during the audit. Lighthouse Energy does not use non-metering information to determine profile data.

**Audit commentary**

No non-metering information is collected by Lighthouse Energy.

**Audit outcome**

Compliant

## 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)

#### Code reference

*Clause 19(1) Schedule 15.2*

#### Code related audit information

*If a reconciliation participant detects errors while validating non-half hour meter readings, the reconciliation participant must:*

*19(1)(a) - confirm the original meter reading by carrying out another meter reading*

*19(1)(b) - replace the original meter reading the second meter reading (even if the second meter reading is at a different date)*

*19(1A) if a reconciliation participant detects errors while validating non half hour meter readings, but the reconciliation participant cannot confirm the original meter reading or replace it with a meter reading from another interrogation, the reconciliation participant must:*

- *substitute the original meter reading with an estimated reading that is marked as an estimate; and*
- *subsequently replace the estimated reading in accordance with clause 4(2)*

#### Audit observation

Correction of NHH readings, if necessary, is completed by JC Consulting

#### Audit commentary

If correction of NHH readings is necessary it will be done in conjunction with Lighthouse Energy. It will be done in the RM TOOL; any changes will have an audit trail. JC Consulting confirmed that there were no corrections of NHH data in the period covered by this audit.

#### Audit outcome

Compliant

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

#### Code reference

*Clause 19(2) Schedule 15.2*

#### Code related audit information

*If a reconciliation participant detects errors while validating half hour meter readings, the reconciliation participant must correct the meter readings as follows:*

*19(2)(a) - if the relevant metering installation has a check meter or data storage device, substitute the original meter reading with data from the check meter or data storage device; or*

*19(2)(b) - if the relevant metering installation does not have a check meter or data storage device, substitute the original meter reading with data from another period provided:*

- (i) *The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
- (ii) *The reconciliation participant considers the pattern of consumption to be materially similar to the period in error*

### Audit observation

Correction of HHR readings, if necessary, is completed by JC Consulting

### Audit commentary

If correction of HHR readings is necessary it will be done in conjunction with Lighthouse Energy. It will be done in the RM TOOL; any changes will have an audit trail. JC Consulting confirmed that there were no corrections of HHR data in the period covered by this audit.

### Audit outcome

Compliant

## 8.3. Error and loss compensation arrangements (Clause 19(3) Schedule 15.2)

### Code reference

*Clause 19(3) Schedule 15.2*

### Code related audit information

*A reconciliation participant may use error compensation and loss compensation as part of the process of determining accurate data. Whichever methodology is used, the reconciliation participant must document the compensation process and comply with audit trail requirements set out in the Code.*

### Audit observation

Lighthouse Energy trades category 1 metering installations only.

### Audit commentary

No error or loss compensation needs to be applied to metering data.

### Audit outcome

Compliant

## 8.4. Correction of HHR and NHH raw meter data (Clause 19(4) and (5) Schedule 15.2)

### Code reference

*Clause 19(4) and (5) Schedule 15.2*

### Code related audit information

*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:*

*19(5)(a)- the date of the correction or alteration*

*19(5)(b)- the time of the correction or alteration*

*19(5)(c)- the operator identifier for the person within the reconciliation participant who made the correction or alteration*

*19(5)(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*

*19(5)(e)- the technique used to arrive at the corrected data*

*19(5)(f)- the reason for the correction or alteration.*

**Audit observation**

Lighthouse Energy receives a copy of raw data which is never overwritten. If data is corrected, a journal is created. Audit trails are discussed in **section 2.4**.

**Audit commentary**

The company/JC Consulting stated that there were no instances of meter data which required correction/alteration.

**Audit outcome**

Compliant

## 9. ESTIMATING AND VALIDATING VOLUME INFORMATION

### 9.1. Identification of readings (Clause 3(3) Schedule 15.2)

#### Code reference

*Clause 3(3) Schedule 15.2*

#### Code related audit information

*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

Data received from MEPs is actual and flagged as actual. Any estimated data is flagged accordingly in the RM TOOL.

#### Audit commentary

We reviewed a sample of five readings in the RM TOOL and confirmed they were correctly labelled. Each register read or interval read has a flag assigned.

#### Audit outcome

Compliant

### 9.2. Derivation of volume information (Clause 3(4) Schedule 15.2)

#### Code reference

*Clause 3(4) Schedule 15.2*

#### Code related audit information

*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

JC Consulting provided a submission summary for the audit period.

#### Audit commentary

We reviewed the data provided by JC Consulting was reviewed in **section 11** and **12** to confirm that volumes were based on readings as required.

#### Audit outcome

Compliant

### 9.3. Meter data used to derive volume information (Clause 3(5) Schedule 15.2)

#### Code reference

*Clause 3(5) Schedule 15.2*

#### Code related audit information

*All 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**

Metering data is collected by MEPS.

#### **Audit commentary**

Metering data is imported to the RM TOOL. Data is neither truncated nor rounded.

#### **Audit outcome**

Compliant

### **9.4. Half hour estimates (Clause 15 Schedule 15.2)**

#### **Code reference**

*Clause 15 Schedule 15.2*

#### **Code related audit information**

*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**

HHR estimation is conducted by JC Consulting if necessary.

#### **Audit commentary**

JC Consulting estimated HHR data for 0207466076LCB08, 0000145686UN4FC. During the audit period metering data had to be estimated for 15 ICPs. For 9 ICPs data was not provided by NGCM on 10/02/2020. The customer profile was used for estimation. Estimated data is labelled as "estimated" against each interval, estimated data is scaled to match the total kWh.

#### **Audit outcome**

Compliant

### **9.5. NHH metering information data validation (Clause 16 Schedule 15.2)**

#### **Code reference**

*Clause 16 Schedule 15.2*

#### **Code related audit information**

*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 0 values.*

#### **Audit observation**

NHH metering information data validation is conducted by JC Consulting. We reviewed the process and found it compliant.

#### **Audit commentary**

JC Consulting adopted a validation process for NHH reads which consists of checking for high, low reads, consumption detected >10% of rollover amount, consumption on de energised sites, missing reads, negative consumption.

#### **Audit outcome**

Compliant

### **9.6. Electronic meter readings and estimated readings (Clause 17 Schedule 15.2)**

#### **Code reference**

*Clause 17 Schedule 15.2*

#### **Code related audit information**

*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 0 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**

JC Consulting receives remotely read metering data from MEPS.

#### **Audit commentary**

When data is uploaded into the RM TOOL a validity check of meter readings is conducted and an exception report is created. MEPS are advised if there is an issue. The event logs are reviewed.

#### **Audit outcome**

Compliant

## 10. PROVISION OF METERING INFORMATION TO THE GRID OWNER IN ACCORDANCE WITH SUBPART 4 OF PART 13 (CLAUSE 15.38(1)(F))

### 10.1. Generators to provide HHR metering information (Clause 13.136)

#### Code reference

Clause 13.136

#### Code related audit information

*The generator (and/or embedded generator) must provide to the grid owner connected to the local network in which the embedded generator is located, half hour metering information in accordance with clause 13.138 in relation to generating plant that is subject to a dispatch instruction:*

- *that injects electricity directly into a local network; or*
- *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

Lighthouse Energy is not a generator.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

### 10.2. Unoffered & intermittent generation provision of metering information (Clause 13.137)

#### Code reference

Clause 13.137

#### Code related audit information

*Each generator must provide 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)*

*The generator must provide the relevant grid owner with the half-hour metering information required under this clause in accordance with the requirements of Part 15 for the collection of that generator's volume information. (clause 13.137(2))*

*If such half-hour metering information is not available, the generator must provide the pricing manager and the relevant grid owner a reasonable estimate of such data. (clause 13.137(3))*

#### Audit observation

Lighthouse Energy is not a generator.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable



### 10.3. Loss adjustment of HHR metering information (Clause 13.138)

#### Code reference

Clause 13.138

#### Code related audit information

*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

Lighthouse Energy is not a generator.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

### 10.4. Notification of the provision of HHR metering information (Clause 13.140)

#### Code reference

Clause 13.140

#### Code related audit information

*If the generator provides half-hourly metering information to a 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

Lighthouse Energy is not a generator.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

## 11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

### 11.1. Buying and selling notifications (Clause 15.3)

#### Code reference

*Clause 15.3*

#### Code related audit information

*Unless an embedded generator has given a notification in respect of the point of connection under clause 15.3, a trader must give notice to 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

The LIS file was used to identify which profiles are used by Lighthouse Energy.

#### Audit commentary

For submissions Lighthouse Energy uses the profiles of HHR and RPS. Trading notifications were not required.

#### Audit outcome

Compliant

### 11.2. Calculation of ICP days (Clause 15.6)

#### Code reference

*Clause 15.6*

#### Code related audit information

*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.*

*The ICP days information must be calculated using the data contained in the retailer or direct purchaser's reconciliation system when it aggregates volume information for ICPs into submission information.*

#### Audit observation

The ICP days are reported to the reconciliation manager by JC Consulting as Lighthouse Energy's agent. For audit purposes JC Consulting provided AV-100 and GR-100 for the audit period.

#### Audit commentary

Analysis of GR-100 showed that the number of days calculated by the registry and the RM TOOL was the same for all submissions R1 and revisions. There are small discrepancies for initial submissions caused by late switches or withdrawn switches.

#### Audit outcome

Compliant

### 11.3. Electricity supplied information provision to the reconciliation manager (Clause 15.7)

#### Code reference

Clause 15.7

#### Code related audit information

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

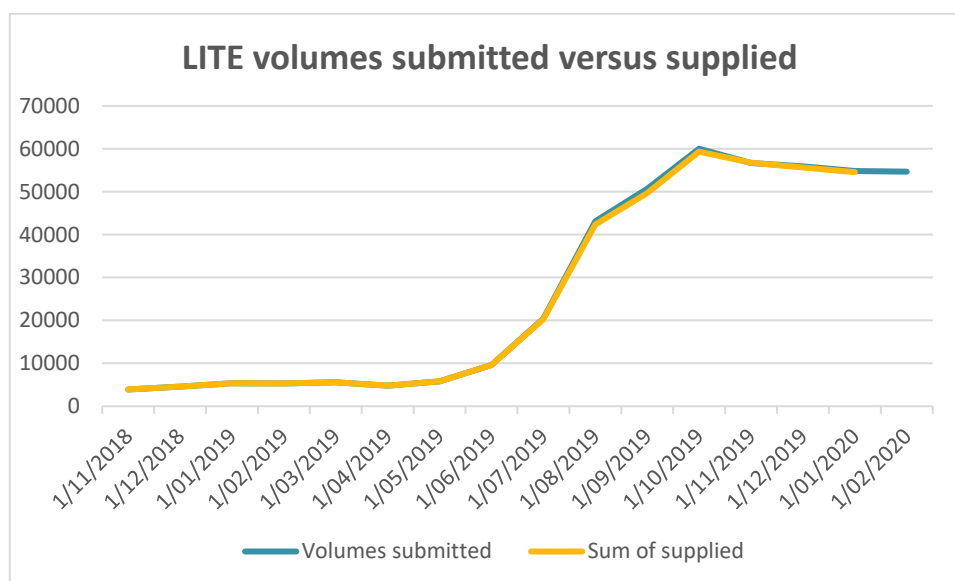
15.7(b) - revised submission information provided in accordance with clause 15.4(2), by 1600 hours on the 13th business day of each reconciliation period.

#### Audit observation

JC Consulting submits AV-120 every month for the current month and scheduled revisions on behalf of Lighthouse Energy.

#### Audit commentary

The graph below shows a comparison between volumes submitted and supplied.



Energy supplied is currently calculated by JC Consulting from the previous months Initial Network volumes.

#### Audit outcome

Non-compliant

Non-compliance	Description
----------------	-------------

Audit Ref: 11.3 With: 15.7  From: 01-Nov-18 To: 15-Apr-20	Energy supplied is currently calculated by JC Consulting from the previous months Initial Network volumes  Potential impact: None  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	Controls are recorded as moderate because data is not coming from a billing system, however volumes submitted to networks are very accurate based on meter readings. There is no impact on settlement outcomes. Audit risk low.	
Actions taken to resolve the issue	Completion date	Remedial action status
		Identified
Preventative actions taken to ensure no further issues will occur	Completion date	

#### 11.4. HHR aggregates information provision to the reconciliation manager (Clause 15.8)

##### Code reference

Clause 15.8

##### Code related audit information

*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

JC Consulting provided a set of submission files (AV140) for Nov'18 to Mar'20. GR-090 (missing ICPs) was reviewed for the same period.

We compared the volumes in HHRVOLS and HHRAGGR for a selected month.

##### Audit commentary

We compared volumes in HHRVOLS and HHRAGGR for the months May'19 to Oct'19. There were only small rounding differences between the volumes and aggregates or not at all.

The HHRAGGR files are prepared at ICP level based on submission information. Clause 15.8 states that the HHRAGGR should contain electricity supplied information rather than submission information. The

Reconciliation Manager Functional Specification in section 3, described HHRAGGR as HHR submission information that is aggregated per ICP for the whole month.

There is a misalignment between the Code requirements and RM file specification. It is a problem well known to the Authority and is awaiting a resolution.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 11.4 With: 15.8 From: 01-Nov-18 To: 15-Apr-20	HHRAGGR files do not contain electricity supplied information Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Lighthouse Energy submits submissions volumes as per the reconciliation manager specification.		
Actions taken to resolve the issue		Completion date	Remedial action status
			Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
.			

## 12. SUBMISSION COMPUTATION

### 12.1. Daylight saving adjustment (Clause 15.36)

#### Code reference

Clause 15.36

#### Code related audit information

*The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using 1 of the techniques set out in clause 15.36(3) specified by the Authority.*

#### Audit observation

Lighthouse Energy received HHR data from NGCM.

#### Audit commentary

NGCM compliance with this clause is covered by their MEP audit. Data provided to Lighthouse Energy is daylight saving adjusted using the “trading period run on” technique. We reviewed HHRVOLS file for Sept’19 and confirm the correct number of trading periods on 29/09/19 were recorded.

#### Audit outcome

Compliant

### 12.2. Creation of submission information (Clause 15.4)

#### Code reference

Clause 15.4

#### Code related audit information

*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

JC consulting calculates and provides reconciliation files on behalf of Lighthouse Energy. Reconciliation data is provided for both HHR and NHH ICPs.

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late.

#### Audit commentary

No breaches had been recorded for the late provision of submission information.

#### Audit outcome

Compliant

### 12.3. Allocation of submission information (Clause 15.5)

#### Code reference

Clause 15.5

#### Code related audit information

*In preparing and submitting submission information, the reconciliation participant must allocate volume information for each ICP to the NSP indicated by the data held in 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

The process for aggregating the AV-080 files was examined by checking submissions for Nov'19 and Dec'19

#### Audit commentary

JC Consulting thoroughly validates and checks volume data before submission files are sent to the reconciliation manager. Copies of reconciliation submissions are provided to Lighthouse Energy.

We compared consecutive submissions for Oct'19, Nov'19, and Dec'19 and found them to contain the same NSPs.

#### Audit outcome

Compliant

### 12.4. Grid owner volumes information (Clause 15.9)

#### Code reference

Clause 15.9

#### Code related audit information

*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

The LIS file was reviewed. Lighthouse Energy is not a grid owner.

#### Audit commentary

This clause is not applicable. Compliance was not assessed.

#### Audit outcome

Not applicable

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

### Code reference

Clause 15.10

### Code related audit information

*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

Lighthouse Energy is not an embedded network owner.

### Audit commentary

This clause is not applicable. Compliance was not assessed.

### Audit outcome

Not applicable

## 12.6. Grid connected generation (Clause 15.11)

### Code reference

Clause 15.11

### Code related audit information

*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

Lighthouse Energy is not a generator.

### Audit commentary

This clause is not applicable. Compliance was not assessed.

### Audit outcome

Not applicable

## 12.7. Accuracy of submission information (Clause 15.12)

### Code reference

Clause 15.12

### Code related audit information



*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**

All relevant revisions were submitted on day 13 by JC Consulting.

#### **Audit commentary**

A review of alleged breaches confirmed that no reconciliation submissions were made late.

JC Consulting provided evidence that any updates to metering information are submitted to the RM. On day 4 JC Consulting used Lighthouse Energy's own profile to calculate NHH submissions, they are replaced as soon as GR-030 is available.

Lighthouse Energy 3 RR files, we confirm all of them were used in the submission process.

#### **Audit outcome**

Compliant

### **12.8. Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)**

#### **Code reference**

*Clause 4 Schedule 15.2*

#### **Code related audit information**

*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).*

*The relevant reconciliation participant must, at the earliest opportunity, and no later than the month 14 revision cycle, replace volume information created using estimated readings with volume information created using validated meter readings.*

*If, despite having used reasonable endeavours for at least 12 months, a reconciliation participant has been unable to obtain a validated meter reading, the reconciliation participant must replace volume information created using an estimated reading with volume information created using a permanent estimate in place of a validated meter reading.*

#### **Audit observation**

Reconciliation files are submitted by JC Consulting.

#### **Audit commentary**

We reviewed AV-080 for Jan'19, it is the first R14 submission. All volumes for 4 NSPs are historical estimates.

#### **Audit outcome**

Compliant

### **12.9. Reconciliation participants to prepare information (Clause 2 Schedule 15.3)**

#### **Code reference**

*Clause 2 Schedule 15.3*

### Code related audit information

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

- *half hour volume information for the total metered quantity of electricity 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)):*
  - a) *any half hour volume information for the ICP; or*
  - b) *any non-half hour volumes information calculated under clauses 4 to 6 (as applicable).*
  - c) *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 in 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)):*
  - a) *for each ICP, the compensation factor that is recorded in the registry (clause 2(3)(a))*
  - b) *for each NSP the compensation factor that is recorded in the metering installations most recent certification report. (clause 2(3)(b))*

### Audit observation

Reconciliation files are submitted by JC Consulting.

### Audit commentary

Lighthouse Energy trades both NHH and HHR ICPs.

No ICPs with unmetered load are supplied.

Lighthouse Energy only used RPS and HHR profiles; no certified control devices were used to create volumes.

We crosschecked the registry file and reconciliation files for three months and confirm that volumes were submitted for all ICPs.

### Audit outcome

Compliant

## 12.10. Historical estimates and forward estimates (Clause 3 Schedule 15.3)

### Code reference

Clause 3 Schedule 15.3

### Code related audit information

*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**

We reviewed AV-080 for Nov'18 to Mar'20.

#### **Audit commentary**

Historical and forward estimates were included and identified correctly.

#### **Audit outcome**

Compliant

### **12.11. Historical estimate process (Clause 4 and 5 Schedule 15.3)**

#### **Code reference**

*Clause 4 and 5 Schedule 15.3*

#### **Code related audit information**

*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**

Historical estimates are calculated by JC Consulting.

#### **Audit commentary**

We asked JC Consulting to provide examples of calculations relevant to Lighthouse Energy. All Lighthouse Energy meters reads are remotely in most cases no forwards estimates are calculated. There are 6 non-AMI meters for which always forward estimates are calculated because of no-reads.

The scenarios provided are listed below:

- ICP gained
- ICP lost
- Reads span a month

We confirm that calculations were correct.

#### **Audit outcome**

Compliant

### **12.12. Forward estimate process (Clause 6 Schedule 15.3)**

#### **Code reference**

*Clause 6 Schedule 15.3*

#### Code related audit information

*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

Forward estimates are calculated by JC Consulting if required.

#### Audit commentary

Lighthouse Energy's forward estimates are based on a daily average consumption specified in the CS file or daily average consumption from the previous read to read. Using GR170-NHH we checked variances between submission day 4 and day 13, the variances were negligible.

#### Audit outcome

Compliant

### 12.13. Compulsory meter reading after profile change (Clause 7 Schedule 15.3)

#### Code reference

*Clause 7 Schedule 15.3*

#### Code related audit information

*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

There were no meters or profile changes during the audit period.

#### Audit commentary

There were no changes to the profiles used by Lighthouse Energy

#### Audit outcome

Compliant

## 13. SUBMISSION FORMAT AND TIMING

### 13.1. Provision of submission information to the RM (Clause 8 Schedule 15.3)

#### Code reference

*Clause 8 Schedule 15.3*

#### Code related audit information

*For each category 3 of higher metering installation, a reconciliation participant must provide half hour submission information to the reconciliation manager.*

*For each category 1 or category 2 metering installation, a reconciliation participant must provide to the reconciliation manager:*

- *Half hour submission information; or*
- *Non half hour submission information; or*
- *A combination of half hour submission information and non-half hour submission information*

*However, a reconciliation participant may instead use a profile if:*

- *The reconciliation participant is using a profile approved in accordance with clause Schedule 15.5; and*
- *The approved profile allows the reconciliation participant to provide half hour submission information from a non-half hour metering installation; and*
- *The reconciliation participant provides submission information that complies with the requirements set out in the approved profile.*

*Half hour submission information provided to the reconciliation manager must be aggregated to the following levels:*

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *trading period*

*The non-half hour submission information that a reconciliation participant submits must be aggregated to the following levels:*

- *NSP code*
- *reconciliation type*
- *profile*
- *loss category code*
- *flow direction*
- *dedicated NSP*
- *consumption period or day*

#### Audit observation

JC Consulting provided submission files for Nov'18 to Mar'20.

#### Audit commentary

We reviewed files and confirm that the format of submission files is compliant. We reviewed HHRVOLS and HHRAGGR in **section 11.4**. NHHVOLS were discussed in **section 12.9**.

#### Audit outcome

Compliant

### 13.2. Reporting resolution (Clause 9 Schedule 15.3)

#### Code reference

*Clause 9 Schedule 15.3*

#### Code related audit information

*When reporting submission information, the number of decimal places must be rounded to not more than 2 decimal places.*

*If the unrounded digit to the right of the second decimal place is greater than or equal to 5, the second digit is rounded up, and*

*If the digit to the right of the second decimal place is less than 5, the second digit is unchanged.*

#### Audit observation

We reviewed submission files for Oct'19 to Dec'19.

#### Audit commentary

Submission information for NHH and HHR is rounded to two decimal places. It was discussed during the audit as to how submission information was calculated, and JC Consulting confirm that submission volumes are rounded, using a method prescribed by this clause, at the end of calculations.

#### Audit outcome

Compliant

### 13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3)

#### Code reference

*Clause 10 Schedule 15.3*

#### Code related audit information

*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

JC Consulting creates and submits reconciliation files for NHH ICPs. We reviewed NHHVOLs and GR-70 NHH created by the reconciliation manager for the audit period.

#### Audit commentary

We checked rev 3,7 and 14 submitted in the audit period. All submissions (AV-080) met this clause requirement.

#### Audit outcome

Compliant

## CONCLUSION

## PARTICIPANT RESPONSE