

**ELECTRICITY INDUSTRY PARTICIPATION CODE
DISPATCHABLE LOAD PURCHASER AUDIT REPORT**

For

NORSKE SKOG TASMAN

Prepared by: Ewa Glowacka – TEG & Associates Ltd

Date audit commenced: 16 December 2019

Date audit report completed: 19 December 2019

Audit report due date: 19-Dec-19

TABLE OF CONTENTS

Executive summary	4
Audit summary	5
Non-compliances	5
Recommendations	5
Issues	5
1. Administrative	6
1.1. Exemptions from Obligations to Comply with Code (Section 11)	6
1.2. Structure of Organisation	6
1.3. Persons involved in this audit	6
1.4. Use of Agents (Clause 15.34)	6
1.5. Hardware and Software	7
1.6. Breaches or Breach Allegations	7
1.7. Authorisation Received	7
1.8. Scope of Audit	7
1.9. Summary of previous audit	8
2. Operational Infrastructure	9
2.1. Relevant information (Clause 15.2)	9
2.2. Provision of information (Clause 15.35)	9
2.3. Data transmission (Clause 20 Schedule 15.2)	9
2.4. Audit trails (Clause 21 Schedule 15.2)	10
3. Gathering raw meter data	12
3.1. Conditions on any approval	12
3.2. Certified metering installation for each dispatch-capable load station	12
3.3. Collection of information by dispatchable load purchaser (Clause 2 Schedule 15.2)	12
3.4. Derivation of meter readings (Clause 3(1), 3(2) and 5 Schedule 15.2)	13
3.5. HHR data collection (Clause 11(1) Schedule 15.2)	14
3.6. HHR interrogation data requirement (Clause 11(2) Schedule 15.2)	14
3.7. HHR interrogation log requirements (Clause 11(3) Schedule 15.2)	15
4. Storing raw meter data	17
4.1. Trading period duration (Clause 13 Schedule 15.2)	17
4.2. Archiving and storage of raw meter data (Clause 18 Schedule 15.2)	17
5. Creating and managing (including validating, estimating, storing, correcting and archiving) volume information	18
5.1. Correction of HHR metering information (Clause 19(2) Schedule 15.2)	18
5.2. Error and loss compensation arrangements (Clause 19(3) Schedule 15.2)	18
5.3. Correction of HHR and NHH raw meter data (Clause 19(4) and (5) Schedule 15.2)	19
6. Estimating and validating volume information	20
6.1. Identification of readings (Clause 3(3) Schedule 15.2)	20
6.2. Derivation of volume information (Clause 3(4) Schedule 15.2)	20
6.3. Half hour estimates (Clause 15 Schedule 15.2)	20
6.4. Electronic meter readings and estimated readings (Clause 17 Schedule 15.2)	21

7.	Provision of metering information to the pricing manager in accordance with subpart 4 of Part 13 (clause 15.38(1)(f))	23
7.1.	Loss adjustment of HHR metering information (Clause 13.138A)	23
7.2.	Notification of the provision of HHR metering information (Clause 13.140)	23
8.	Provision of DISPATCHABLE LOAD INFORMATION	25
8.1.	Dispatchable load information (Clause 15.5D).....	25
9.	Submission computation	26
9.1.	Daylight saving adjustment (Clause 15.36)	26
9.2.	Accuracy of submission information (Clause 15.12)	26
9.3.	Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)	26
9.4.	Dispatch capable load station(Clause 15.5A)	27
9.5.	Dispatchable load information preparation (Clause 15.5B(1) and 15.5B(2)(a))	27
9.6.	Dispatchable load volume information adjustment (Clause 15.5B(2)(b)).....	28
9.7.	Aggregating and rounding dispatchable load information (Clause 15.5C)	28
	Conclusion	30
	Participant response	30

EXECUTIVE SUMMARY

This dispatchable load purchaser audit was performed at the request of Norske Skog. This audit is as required by clause 15.37A, of Part 15, of the Electricity Industry Participation Code 2010.

The relevant clauses audited are as required by the Guidelines for the Dispatchable Load Purchaser Audits V2.1, issued by the Electricity Authority.

Norske Skog's compliance is reliant on the compliance of EMS, as its agent, to carry out reads, validation of meter readings, substitution of readings when actual reading can't be obtained, and provision of these to the pricing manager. The most recent EMS audit dated 04/07/2019 was reviewed. There is a Data Service Agreement between the two companies, signed on 25th August 2014, which describes the scope of the service.

Norske Skog acts as their agent for TOPP1 volumes, which is owned by NTEL (Ngati Tuwharetoa Electricity Ltd)

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 0 which results in an indicative audit frequency of 36 months. Our recommendation is 36 months.

We thank Norske Skog's staff for their full and complete cooperation in this audit.

AUDIT SUMMARY

NON-COMPLIANCES

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

Future risk rating	0	1	2-3	4-7	8-15	16+
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

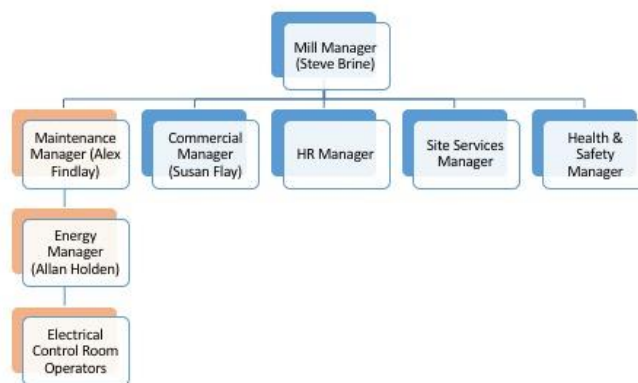
Norske Skog does not have any exemptions granted to exempt them from compliance with all or any of the clauses.

Audit commentary

Norske Skog 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

Norske Skog Tasman Ltd – Organisation Structure



1.3. Persons involved in this audit

Name	Title	Company
Allan Holden	Energy Manager	Norske Skog Tasman
Susan Flay	Commercial Manager	Norske Skog Tasman
Ian Martin	Metering Services Manager	EMS
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 dispatchable load purchaser 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

Norske Skog uses EMS as its agent for reading meters and submission of data on their behalf.

Audit commentary

The EMS audit report dated 04/07/2019 was reviewed during this audit.

1.5. Hardware and Software

There is no specific software used to meet the obligations under the Code. Software used by EMS is covered in the EMS audit report.

1.6. Breaches or Breach Allegations

There have been no breaches related to processes covered by the scope of this audit since the last audit.

1.7. Authorisation Received

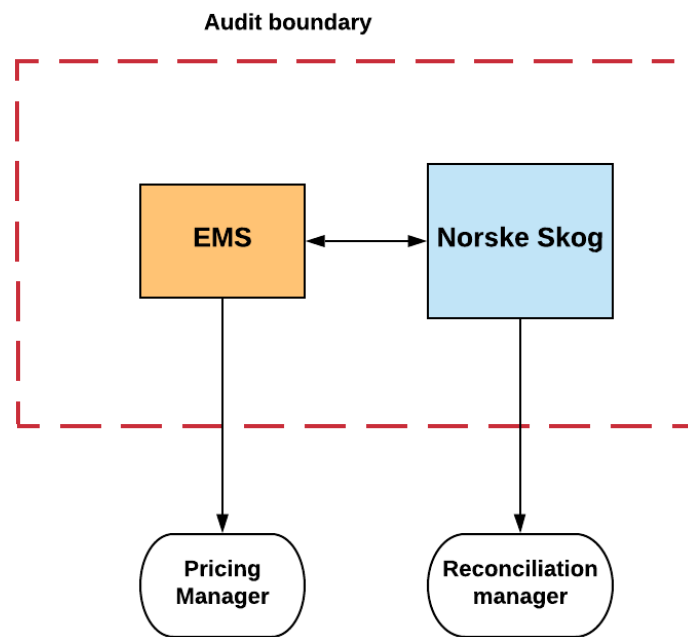
Norske Skog provided an authorisation to TEG & Associates permitting the collection of data from other parties, for matters directly related to the audit.

1.8. Scope of Audit

This DCLS audit was performed at the request of Norske Skog to encompass the Authority's request for an audit as required by clause 15.37A, of Part 15 of the Code, to assure compliance with the Electricity Industry Participation Code 2010. The audit was conducted on 16 of December 2019.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Relevant to audit	Agents Involved in Performance of Tasks
(b) – Gathering and storing raw meter data	✓	EMS
(c)(i) - Creation and management of HHR volume information	✓	EMS
(c)(ii) - Creation and management of NHH volume information	✗	
(c)(ii) - Creation and management of HHR and NHH volume information	✗	
(c)(iv) - Creation and management of dispatchable load information	✓	

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



1.9. Summary of previous audit

The previous audit for Norske Skog Tasman as a Dispatchable load purchaser (DCLS) was conducted in December 2017 by Ewa Glowacka of TEG & Associates. No non-compliances were identified.

2. OPERATIONAL INFRASTRUCTURE

2.1. Relevant information (Clause 15.2)

Code reference

Clause 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

EMS, as the agent for Norske Skog, interrogate meters, validate data, correct if necessary and prepare volumes to be submitted to the pricing manager and the reconciliation manager.

Audit commentary

During the audit we did not identified any incomplete or misleading information. A thorough check of volumes is conducted before they are submitted to the market.

Audit outcome

Compliant

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

Information created in accordance with Part 15 is prepared by EMS on behalf of Norske Skog.

Audit commentary

The company provided submission files for July'19 to Nov'19. We examined data delivery in accordance with Part 15 and confirm compliance.

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 dispatchable load purchaser's 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

EMS communicates with the reconciliation manager via the RM portal. Norske Skog exchanges information with their agent (EMS) via email (passworded).

Audit commentary

We reviewed the EMS audit report dated 04/07/2019 as part of this audit and confirm compliance.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

Each dispatchable load purchaser must ensure that a complete audit trail exists for all data gathering, validation, and processing functions of the dispatchable load purchaser.

The audit trail must include details of information:

- *provided to and received from the reconciliation manager*
- *provided and received from other dispatchable load purchasers 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 within the dispatchable load purchaser who performed the activity (clause 21(4)(c)).*

Audit observation

The meters are read, and metering data is validated by EMS. The EMS system has an audit trail for all data gathering, validation and processing functions as described in the EMS audit report.

Audit commentary

We reviewed the EMS audit report and confirm that the company meets the obligations of this clause.

Audit outcome

Compliant

3. GATHERING RAW METER DATA

3.1. Conditions on any approval

Code reference

Clause 7 of Schedule 13.8

Code related audit information

The system operation may impose conditions on any approval it grants a dispatchable load purchaser

Audit observation

As noted in the last audit the System Operator did not impose any conditions when Norske Skog Tasman applied to be certified as a Dispatchable Load Purchaser.

Audit commentary

No additional conditions have been added since the last audit. As noted in the last audit the ownership of TOPP1 changed but the way in which volumes are dispatched remained the same.

Audit outcome

Compliant

3.2. Certified metering installation for each dispatch-capable load station

Code reference

Clause 15.5B(3)

Code related audit information

The dispatchable load purchaser must ensure there is a certified metering installation for each dispatch capable load station.

Audit observation

Norske Skog provided copies of metering installations for all generators.

Audit commentary

The details of certifications are shown below:

TA2 - Revenue Metering Installation CERT-2019-651, expires 4-Jul-2022, metering installation cat 5

TA3 - Revenue Metering Installation CERT-2019-652, expires 4-Jul-2022, metering installation cat 5

TOPP1 - Revenue Metering Installation CERT-2019-653, expires 4-Jul-2022, metering installation cat 5

KA24 - Revenue Metering Installation CERT-2018-158 expires 05-Feb-2021, metering installation cat 5

Audit outcome

Compliant

3.3. Collection of information by dispatchable load purchaser (Clause 2 Schedule 15.2)

Code reference

Clause 2 Schedule 15.2

Code related audit information

Only a certified dispatchable load purchaser may collect raw meter data:

2(2) - The dispatchable load purchaser must collect raw meter data used to determine volume information from the services interface or the metering installation.

2(3) - The dispatchable load purchaser must ensure the interrogation cycle is such that it does not exceed the maximum interrogation cycle in the registry .

2(4) - The dispatchable load purchaser 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

EMS reads meters for Norske Skog.

Audit commentary

According to the report EMS meets compliance with this clause.

Audit outcome

Compliant

3.4. 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 dispatchable load purchaser 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

HHR meters are by EMS. Norske Skog is not responsible for any NHH ICPs. Clause 5 of Schedule 15.2 is not applicable.

Audit commentary

The EMS audit report was reviewed. These clauses were assessed during their audit and found compliant.

Audit outcome

Compliant

3.5. 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

EMS collect data electronically on behalf of Norske Skog. All meters are read remotely.

Audit commentary

The most recent EMS audit report confirm compliance with this clause.

Audit outcome

Compliant

3.6. 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 dispatchable load purchaser responsible for collecting the data and appropriate action must be taken if problems are apparent or an automated software function flags exceptions.

Audit observation

EMS collect data electronically on behalf of Norske Skog

Audit commentary

Data management for all HHR ICPs is managed by EMS. Compliance with this clause was thoroughly examined during the EMS audit and compliance was confirmed.

Audit outcome

Compliant

3.7. 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

EMS collect data electronically on behalf of Norske Skog

Audit commentary

Data management for all HHR ICPs is managed by EMS. According to the EMS audit report

An interrogation log is generated to record details of all interrogations, and appropriate action is taken where problems are apparent. The interrogation log contains the following information:

- date of interrogation
- time of commencement of interrogation
- operator identification (this records which machine made the interrogation request and whether it was a manual or scheduled task)

- *unique identifier of the data storage device*
- *time errors outside the range specified in table 1 of clause 2*
- *method of interrogation (there is only one method used by EMS, but manual data from agents will be loaded as “imported” or “portable reader”)*
- *identifier of the reading device used for interrogation*

Audit outcome

Compliant

4. STORING RAW METER DATA

4.1. 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 $\pm 0.1\%$ (± 2 seconds).

Audit observation

EMS is the agent for Norske Skog which reads meters.

Audit commentary

As per the EMS audit report, the trading period is managed through the clock synchronisation process. Compliance was confirmed.

Audit outcome

Compliant

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

Code reference

Clause 18 Schedule 15.2

Code related audit information

A dispatchable load purchaser 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

Norske Skog does not interrogate meters themselves. EMS, as their agent, interrogates HHR meters and archives data.

Audit commentary

The EMS audit report confirmed compliance with this clause.

Audit outcome

Compliant

5. CREATING AND MANAGING (INCLUDING VALIDATING, ESTIMATING, STORING, CORRECTING AND ARCHIVING) VOLUME INFORMATION

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

- *The total of all substituted intervals matches the total consumption recorded on a meter, if available; and*
- *the pattern of consumption is considered to be materially similar to the period in error.*

Audit observation

The correction of half-hour metering readings will be performed by EMS when the need arises. Norske Skog will be notified if and when this occurs as per the agreement between the parties.

Audit commentary

We contacted EMS and they confirmed that there have been no issues with metering or data since the last audit.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

Audit observation

We reviewed metering installation certification issued by AccuCal. No error and loss compensations are required to be applied by EMS to metering data.

Audit commentary

The EMS audit report states that there are no metering installations with external compensation factors other than ratio compensation.

Audit outcome

Compliant

5.3. 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 dispatchable load purchaser 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

EMS reads meters and corrects data, if necessary, but raw data is never overwritten.

Audit commentary

The EMS audit report stated that raw data is not overwritten in any situation.

Audit outcome

Compliant

6. ESTIMATING AND VALIDATING VOLUME INFORMATION

6.1. 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

EMS submits data on behalf of Norske Skog.

Audit commentary

The EMS audit report states that all estimated data is correctly identified at trading period level, not daily level.

Since the last audit no readings required estimation. If data was estimated it would be flagged in the delivery notice data in daily pricing.

Audit outcome

Compliant

6.2. 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

This function for DCLS volumes is performed by EMS as the agent.

Audit commentary

The EMS report states that data is sourced from validated or estimated data.

Audit outcome

Compliant

6.3. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

If a dispatchable load purchaser 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 dispatchable load purchaser'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 dispatchable load purchaser must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.

Audit observation

This function for half hour meters is performed by EMS (agent).

Audit commentary

According to the Data Services Agreement, EMS will propose to use Substituted Data and the basis for producing or obtaining the Substituted Data. Where Substituted Data is used, EMS will make a record of it and the basis for producing or obtaining the Substituted Data and notify of these details in writing.

According to the EMS audit report:

“Estimation is conducted in GMMS. When estimation is required, GMMS selects a period of historic data, at least three months where available. GMMS calculates an average of the data for each interval for each date over that period and uses that for the estimation. The process employed is robust and meets the “reasonable endeavours” requirement.”

We contacted EMS and they confirmed that there have been no issues with metering or data since the last audit.

Audit outcome

Compliant

6.4. 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

Meters are interrogated by EMS.

Audit commentary

The EMS audit report describes that interrogation occurs regularly during the month therefore there is little risk for data to be overwritten. Validity checks of meter readings meet compliance with this clause.

Audit outcome

Compliant

7. PROVISION OF METERING INFORMATION TO THE PRICING MANAGER IN ACCORDANCE WITH SUBPART 4 OF PART 13 (CLAUSE 15.38(1)(F))

7.1. Loss adjustment of HHR metering information (Clause 13.138A)

Code reference

Clause 13.138A

Code related audit information

The dispatchable load purchaser must provide half-hour metering information to the relevant grid owner for each of its DCL. The information must be provided:

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 dispatchable load purchaser 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

EMS, as the agent, collects the data from Norske Skog's generators.

Audit commentary

EMS prepares HHR information for the grid owner.

SKOG has two Dispatchable Load Stations, Dispatchable Load Station 0 (DLS0) and Dispatchable Load Station 1 (DLS1).

Within the Dispatchable Load Station 0 (DLS0,) there are four embedded generators, volume information is the GXP (KAW0112) total plus embedded generation total. Two of the embedded generators are remote from the GXP so this data is loss adjusted as part of the calculation. The loss adjustment now occurs in the meter not externally.

DLS1 does not have any embedded generation so the GXP total is the DLS total.

EMS has this data by 0500 hours each day.

Audit outcome

Compliant

7.2. 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 the pricing manager or a grid owner under clause 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

EMS delivers data daily to the grid owner.

Audit commentary

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

Audit outcome

Compliant

8. PROVISION OF DISPATCHABLE LOAD INFORMATION

8.1. Dispatchable load information (Clause 15.5D)

Code reference

Clause 15.5D

Code related audit information

Each dispatchable load purchaser must provide to the reconciliation manager dispatchable load information for each GXP at which the dispatchable load purchaser has purchased electricity for a DCLS during the consumption period immediately before each reconciliation period.

If the dispatchable load purchaser has previously provided dispatchable load information and that information has changed, revised information must be provided.

Audit observation

Every month, Norske Skog provides dispatchable load information, to the RM, for each GXP (KAW0112 and KAW0113) detailing what was purchased. Files are prepared by EMS and provided to the Norske Skog SFTP server.

Audit commentary

The files were reviewed and we confirm compliance.

There were no instances, since the last audit, where EMS needed to resend wash-up data to SKOG to be submitted to the RM.

Audit outcome

Compliant

9. SUBMISSION COMPUTATION

9.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The dispatchable load purchaser 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

The process for daylight saving adjustment was reviewed during the EMS audit, which acts as Norske Skog's agent.

Audit commentary

The EMS audit report was reviewed as a part of this audit. All HHR data is adjusted using the "trading period run on" technique.

We checked DHHVLS for September'19 and confirmed that data was shifted.

Audit outcome

Compliant

9.2. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

If the dispatchable load purchaser 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

EMS prepares submission information and it is passed to Norske Skog for submission to the reconciliation manager.

Audit commentary

The Data Service Agreement with EMS states that if EMS obtains more accurate data it will submit a new DHHRVOLS file and send to Norske Skog. As per **section 8.1**, there were no instances, since the last audit, where EMS needed to resend wash-up data to SKOG to be submitted to the RM.

Audit outcome

Compliant

9.3. 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 dispatchable load purchaser 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, the dispatchable load purchaser has been unable to obtain a validated meter reading, the dispatchable load purchaser 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

The Agreement between EMS and Norske Skog has a provision for the use of Substituted Data. EMS will use reasonable endeavours to obtain validated data. If it is not possible Norske Skog will be informed and Substituted Data used. The data will be marked accordingly.

Audit commentary

EMS confirmed that no data has been estimated since the last audit.

Audit outcome

Compliant

9.4. Dispatch capable load station(Clause 15.5A)

Code reference

Clause 15.5A

Code related audit information

Each dispatchable load purchaser must prepare dispatchable load information.

For each DCLS that has a metering installation at a point of connection (i.e. it does not fall within the scope of clause 15.5B), the dispatchable load purchaser must use volume information prepared under Schedule 15.2.

Audit observation

Dispatchable load information is prepared and calculated by EMS.

Audit commentary

The EMS report dated states that DLS load information is prepared and calculated in accordance with Schedule 15.2.

Audit outcome

Compliant

9.5. Dispatchable load information preparation (Clause 15.5B(1) and 15.5B(2)(a))

Code reference

Clause 15.5B(1) and 15.5B(2)(a)

Code related audit information

Each dispatchable load purchaser (apart from those that are at a point of connection) must prepare dispatchable load information in accordance with clause 15.5B.

If 15.5B(1) applies then the dispatchable load information must be prepared using volume information derived from raw meter data.

Audit observation

EMS prepares dispatchable load information.

Audit commentary

As per the EMS audit report, the two DCLS are considered to be located at the point of connection, although volume information for one, DCL0, is not obtained from metering information but calculated from the GXP meter taking into account some embedded generation.

Audit outcome

Compliant

9.6. Dispatchable load volume information adjustment (Clause 15.5B(2)(b))

Code reference

Clause 15.5B(2)(b)

Code related audit information

The dispatchable load purchaser must adjust the dispatchable load volume information derived from raw meter data using an accurate compensation factor to compensate for internal site losses between the meter installation and:

- i) the grid (if the premises is directly connected to the grid)*
- ii) the local network (if the premises is directly connected to the local network)*
- iii) the embedded network (if the premises are directly connected to the embedded network).*

Audit observation

The dispatchable load station metering installations are at a point of connection.

Audit commentary

No additional compensation has to be applied to raw data because the dispatchable load metering installations are at the point of supply.

Audit outcome

Compliant

9.7. Aggregating and rounding dispatchable load information (Clause 15.5C)

Code reference

Clause 15.5C

Code related audit information

A dispatchable load purchaser must aggregate dispatchable load information to the following aggregation criteria:

- i) NSP code*
- ii) dispatch-capable load station identifier*
- iii) loss category code; and*

iv) trading period.

The dispatch-capable load station identifier must be the identifier that has been assigned by the system operator to the DCLS.

In the case of ICP connected customer premises, the NSP code and loss category code must be sourced from the registry records for that ICP.

Dispatchable load information must be rounded to 2 decimal places.

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 dispatchable load purchaser, only if it ensures that the accuracy is within the percentage of error specified by the Authority.

Audit observation

DHHVOLS are prepared by EMS and submitted by Norske Skog.

Audit commentary

We reviewed submission files for July'19 to Nov'19. The aggregated volume is rounded to 2 decimal places.

Audit outcome

Compliant

CONCLUSION

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