



Investigation Report

Failure to test metering equipment:
Red Energy's compliance with National Electricity Rule 7.2.5(d)(2)

March 2014

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Summary

The National Electricity Rules (**Electricity Rules**) require a Responsible Person (**RP**) to test low voltage current transformers (**CTs**) for accuracy every ten years unless it has developed an asset management strategy which has been approved by the Australian Energy Market Operator (**AEMO**). The relevant Electricity Rules clause is classified as a civil penalty provision, meaning that the Australian Energy Regulator (**AER**) may issue an infringement notice if it forms a reason to believe that this clause has been breached.

If a CT is inaccurate, it can affect the overall precision of metering equipment. Metering accuracy is critical to the operation of the National Electricity Market (**NEM**) and ensures accurate billing because market settlement will be reflective of actual electricity use. If RPs do not test their metering equipment as required under the Electricity Rules, market participants cannot be assured that payments made and received are accurate and they may lose confidence in market data.

In 2011, AEMO alerted the AER to a widespread failure by RPs to test low voltage CTs in accordance with the Electricity Rules. In response we released a [*Compliance Bulletin*](#) outlining our expectations and seeking for RPs to demonstrate a willingness to comply with the testing requirements by testing a sample of their metering installations from 1 July 2012. Following a review of testing undertaken to 30 June 2013, we established that Red Energy did not complete the required testing.

On 25 February 2014 we issued an infringement notice to Red Energy in relation to one of the metering installations that it is responsible for. Red Energy paid the \$20 000 infringement penalty on 21 March 2014. Payment is not an admission by Red Energy that it breached the Electricity Rules.

The AER considers this alleged breach by Red Energy in relation to a single metering installation to be an example of broader compliance issues that exist with respect to Red Energy's testing of its metering equipment. We will continue to monitor Red Energy's compliance with this clause and a lack of improvement in Red Energy's performance may result in further action by the AER.

This report details the AER's investigation into Red Energy's failure to test its metering equipment. Section 1 provides background for the investigation, section 2 summarises our investigation and section 3 outlines our enforcement response.

1 Background

1.1 Role of the AER

Section 15 of the National Electricity Law (**Electricity Law**) sets out the functions and powers of the AER. These functions include:

- monitoring compliance with the Electricity Law, the Regulations, and the Electricity Rules
- investigating breaches or possible breaches of these instruments
- instituting and conducting proceedings in relation to breaches and appeals from decisions in those proceedings.

Further, section 74 of the Electricity Law states that the AER may serve an infringement notice on a person that it has reason to believe has breached a relevant civil penalty provision.

1.2 Metering installation testing requirements

Chapter 7 of the Electricity Rules governs the operation of metering arrangements in the NEM. It contains obligations relating to metering installations used for the measurement of energy, the collection and provision of metering data and the accuracy of metering installations. It also establishes the role of the RP, which is the registered participant responsible for the provision, installation and maintenance of a metering installation, including the testing of the metering installation.

The RP, which is a financial responsible market participant (e.g. retailer or market generator) or a Local Network Service Provider (**LNSP**) must ensure that the testing of the metering installation, including instrument transformers, complies with the requirements of the Electricity Rules, the metrology procedure and other procedures authorised under the Rules.

Clause 7.2.5(d) requires an RP to ensure that the components, accuracy and testing of the metering installation complies with the requirements of the Electricity Rules, the metrology procedure and procedures authorised under the Rules. The Electricity Rules stipulate that unless the RP has developed an asset management strategy that defines

practices to meet the inspection and testing requirements of the Rules which is approved by AEMO, the maximum period between tests for a low voltage CT which forms part of a metering installation is ten years. The relevant Electricity Rules clauses are quoted below.

1.2.1 Relevant clauses of the Electricity Rules

Rule 7.2.5(d)(2)

The *responsible person* must, for each of its *metering installations* ensure that the components, accuracy and testing of the installation complies with the requirements of the *Rules*, the *metrology procedure* and procedures authorised under the *Rules*.

Rule 7.2.5(d) is a civil penalty provision.

Schedule 7.3.1(a)

The *responsible person* must ensure that equipment comprised in a purchased *metering installation* has been tested to the required class accuracy with less than the uncertainties set out in Table S7.3.1.

Schedule 7.3.1(c)

The responsible person (or any other person arranging for testing) must ensure that testing of the metering installation is carried out:

- (1) in accordance with clause 7.6.1 and this schedule 7.3; or
- (2) in accordance with an asset management strategy that defines an alternative testing practice (other than time-based) determined by the *responsible person* and approved by *AEMO*,

and:

- (3) in accordance with a test plan which has been registered with *AEMO*;
- (4) to the same requirements as for new equipment where equipment is to be recycled for use in another site; and
- (5) so as to include all data storage and processing components included in the *metrology procedure*, including algorithms used to prepare agreed load patterns.

Table S7.3.1(c)

Description	Metering Installation Type				
	Type 1	Type 2	Type 3	Type 4	Types 5 & 6
CT	10 years	10 years	10 years	10 years	10 years
VT	10 years	10 years	10 years		n/a
Burden tests	When <i>meters</i> are tested or when changes are made				
CT connected Meter (electronic)	5 years	5 years	5 years	5 years	5 years
CT connected Meter (induction)	2.5 years	2.5 years	5 years	5 years	5 years
Whole current Meter	The testing and inspection requirements must be in accordance with an asset management strategy. Guidelines for the development of the asset management strategy must be recorded in the <i>metrology procedure</i> .				

1.3 Industry history of non-compliance

In March 2011, AEMO advised the AER that a number of RPs had failed to test low voltage CTs in accordance with the ten year requirement. In response, we wrote to all relevant RPs to ascertain how many CTs were due for testing. The majority of responses received from RPs suggested a widespread non-compliance regarding CT testing.

Despite the level of non-compliance, we decided not to respond with enforcement action at that time. We considered there was a lack of industry guidance on an acceptable approach to testing, including possible methods for sample testing. Further, we considered it prudent to allow industry time, through AEMO’s Current Transformer Testing Working Group (CTTWG), to develop an industry-wide approach to CT testing.

The CTTWG comprised 12 members representing distribution networks, retailers, and metering providers across numerous jurisdictions. The group developed a strategy to meet CT testing requirements going forward. Recognising the backlog of testing which existed, the group determined that a sample testing regime over multiple years would best meet this aim and allow RPs to demonstrate compliance with the

requirements of Electricity Rules clause 7.2.5(d)(2). It proposed that each RP submit a testing strategy and plan to AEMO outlining its chosen methodology out of two proposed alternatives:

- testing a representative ten per cent sample of CTs from all family types each year
- testing a sample of CTs from all family types in accordance with the alternative sample testing practice developed with, and approved by, AEMO.

The AER then issued a [*Compliance Bulletin*](#) to set out our expectations in relation to future testing. Consistent with the recommendations of AEMO and the CTTWG, the Compliance Bulletin proposed that the RPs commence testing under their chosen testing strategies on 1 July 2012 and that adhering to the chosen strategy would be considered a willingness to comply with the Electricity Rules.

AEMO reported RP testing levels to the AER following the first year of testing. While our initiative led to a significant improvement in CT testing rates, some RPs, including Red Energy, did not meet the required levels of testing under their chosen testing strategy. We sought further information from those RPs to assist us in deciding what, if any action was required.

2 Investigation of Red Energy's conduct

In September 2013 AEMO notified the AER that Red Energy had not met its 2012-13 testing requirements as set out in our Compliance Bulletin. Later that month we contacted Red Energy for more information. Red Energy stated in its October 2013 response that it had not conducted CT testing for any of the metering installations for which it is the RP. In not undertaking the required testing, we consider that Red Energy demonstrated very limited commitment to meeting its testing requirements under the AER's testing initiative.

In order to assess its broader compliance with clause 7.2.5(d)(2) of the Electricity Rules, we then sought data from Red Energy relating to its metering equipment, including when Red Energy assumed the role of RP for each metering installation and the dates of previous CT testing. Our request was met with a partially complete response in December 2013, from which we were able to form a reason to believe that Red Energy had not met the ten year testing requirements of Electricity Rules clause 7.2.5(d)(2) with respect to a number of installations it was responsible for.

In addition, we confirmed that AEMO has not approved an asset management strategy for the inspection and testing of Red Energy's metering installations which would override the ten year testing requirement.

We considered there is evidence to suggest that Red Energy:

- failed to ensure that a number of its metering installations were tested within the last ten years and
- did not develop an asset management strategy approved by AEMO that defined practices that meet the intent of schedule 7.3 of the Electricity Rules.

Red Energy's actions represent a failure to comply with the Electricity Rules and may have resulted in the accuracy of its metering installations being compromised.

Without testing its CTs, the accuracy of Red Energy's metering installations remains unknown.

3 The AER's enforcement response

The factors AER has regard to when deciding whether to take formal enforcement action are set out in our [*Compliance and Enforcement – Statement of Approach*](#).

These factors include:

- the nature and extent of the conduct that forms the breach
- the amount of loss or damage caused
- the circumstances in which the breach took place
- whether the breach was deliberate, and the period over which it extended
- whether the breach arose out of the conduct of senior management or at a lower level
- whether the participant has a corporate culture conducive to compliance
- whether the participant has cooperated with the AER in relation to the breach
- whether the breach forms part of a sustained pattern of non-compliance.

In deciding the appropriate enforcement response, the AER considered that Red Energy's failure to test the particular metering installation is an example of broader compliance issues that exist for Red Energy with respect to clause 7.2.5(d)(2).

We also considered Red Energy's conduct in relation to this breach. Red Energy did not undertake testing according to the arrangements which were developed by AEMO and its CTTGW and later set out in our Compliance Bulletin. Red Energy has demonstrated very limited commitment to complying with the requirements set out in clause 7.2.5(d)(2), and has not fully responded to our requests for information.

Electricity Rule 7.2.5(d)(2) is a civil penalty provision. Section 74 of the Electricity Law states the AER may serve an infringement notice on a person that it forms a reason to believe has breached a relevant civil penalty provision.

Having regard to all of the above factors, the AER decided to issue one infringement notice in relation to Red Energy's failure to ensure that the one of its metering

installations was tested within the last ten years, and its failure to develop an asset management strategy approved by AEMO that defined practices that meet the intent of schedule 7.3 of the Electricity Rules.

We issued an infringement notice to Red Energy specifying an infringement penalty of \$20 000 on 25 February 2014. Red Energy paid the infringement penalty on 21 March 2014.

We sought a commitment from Red Energy to improve its compliance with this clause. We will continue to monitor Red Energy's compliance with this clause and a lack of improvement in Red Energy's performance with respect to this clause may result in further action by the AER.

In accordance with section 82 of the Electricity Law, the payment of the infringement penalty is not an admission by Red Energy of a breach or an admission of liability. Pursuant to section 81 of the Electricity Law, the AER may not commence proceedings against Red Energy in respect of the conduct to which the infringement notice relates now that Red Energy has paid the \$20 000 penalty.