

**Guidelines on the Procedure for
Testing the Accuracy of Metering Equipment the by Distribution Licensees
On its Own Motion**

Introduction

In terms of Sub-section (1) of Section 1 of Schedule III of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, where a consumer of electricity supplied by a Distribution Licensee is to be charged for the supply wholly or partly by reference to the quantity of electricity supplied, then unless otherwise agreed between the Consumer and the Distribution Licensee, the supply is required to be given through and the quantity of electricity is required to be ascertained by an appropriate meter or meters as the case may be.

In terms of Sub-section (1) of Section 3 of the Sri Lanka Electricity Act, No. 20 of 2009 as amended, the functions of the Commission shall be to set and enforce technical and other standards relating to the safety, quality, continuity and reliability of electricity supply services and metering services. However, the said Act, No. 20 of 2009 does not appear to specifically provide for testing the accuracy of metering equipment by Distribution Licensees if and when requested by Consumers.

The Distribution Metering Code of the Distribution Code (Section 5):

- a. Defines the responsibilities of the metering service providers (Distribution Licensees) and the Users (including customers) with respect to metering of energy and demand;
- b. Specifies the minimum requirements for energy/demand metering; and
- c. Lays down the procedures Distribution Licensees have to adopt on maintenance, validation, collection, processing and verification of metering data.

Accordingly, the Distribution Licensee, as the metering service provider, is responsible for, amongst other:

- a. Supplying, installing, commissioning, maintaining, repairing, replacing, testing and inspecting all meters and associated equipment in the Distribution Licensee's operational area in accordance with the provisions specified in the said Metering Code and applicable standards;
- b. Ensuring that meters or any associated equipment which do not meet the minimum requirements stipulated by the applicable standards are removed and replaced with the least possible delay, thus guaranteeing the integrity and accuracy of the metering function.

Retaining the test certificates/records for a period stipulated by the Commission.

Consequently, the Distribution Licensee is required to maintain all metering equipment according to a planned program and keep all test results, maintenance records and sealing records in respect of all items tested/inspected. On request, relevant information is required to be made available to the Users (including customers).

When carrying out maintenance, testing or auditing, prior notice is required to be given to the Users (including customers) in accordance with the said Act, No. 20 of 2009. This will provide the opportunity for the Customer to witness the testing as well. The Customer or his authorized representative's signature is required to be obtained to certify the meter readings before and after the testing.

It is the User's (including customer's) responsibility to provide unhindered access for the Distribution Licensee to read, test and inspect the metering equipment. If any User (including customer) fails to provide unhindered access to the Distribution Licensee as agreed and if it causes the Distribution Licensee to make additional visits to the User's (including customer's) premises, then the Distribution Licensee will be entitled to recover reasonable costs of such visits.

The Distribution Licensee is required to test each type of meter in accordance with the accepted standard international practice, and publish such information in its website and make the details available to Users (including customers) on request. The Distribution Licensee is required to ensure that each meter installation is inspected and tested as given in the table below:

Installation	Inspection and Testing Frequency
Low voltage retail customer, 1-phase	Once every ten years
Low voltage retail customer 3-phase/2 phase	Once every five years
Low voltage Bulk Customer	Once every year
Medium Voltage Customer	Once every year
Embedded Generators	As stipulated in CEB Guide for Grid Interconnection of Embedded Generators, subject to a minimum frequency of once every year.

Users (including customers) are required to notify the Distribution Licensee of any suspected malfunctioning, defects, damages or any potential dangers to the metering equipment within five working days from the User (including customer) becoming aware of such situations.

The Distribution Licensee is required to repair or replace any meter or associated equipment as soon as practicable after being informed through User (including customer) notification or otherwise, that the meter is defective/ erroneous. If the Licensee can establish that a User has damaged any metering equipment or broken seals, then the cost of all such repairs shall be recovered from the User (including customer).

Applicability

These guidelines are applicable to Distribution Licensees, Customers and Consumers.

Objective

The objective of these guidelines is to provide guidance on the procedure to be followed when testing the accuracy of metering equipment.

Scope

Where a consumer of electricity supplied by a Distribution Licensee (DL) is charged for the supply wholly or partly by reference to the quantity of electricity supplied and the supply is given through and the quantity of electricity is ascertained by an appropriate meter or meters provided by the DL, if and when required, the Distribution Licensee may test the meter or meters by following these guidelines.

Definitions

For the purpose of these guidelines, Consumer/Customer means any person or entity, either as the owner or lawful occupier, supplied with electricity by the DL, and whose premises are for the time being, connected to the DL's Distribution System having accepted to receive the electricity supply on the terms and conditions laid down by the DL.

Application of the guidelines

1. The DL's officer in charge of testing the electricity meter shall:
 - a. Make a prior appointment with the Consumer for the test;
 - b. Provide a copy of these Guidelines to the Consumer in a preferred language (Sinhala, Tamil or English) before visiting the Consumer's premises on the appointed date.
 - c. Visit the Consumer's premises on the appointed date;
 - d. Explain the procedure to be followed and the formula to be used in conducting the test to the Consumer;
 - e. If the test is conducted using a series test meter:
 - i. At the time of commencing the test, complete the form given in Annex I; and
 - ii. At the time of concluding the test, complete the form given in Annex II;
 - f. If the test is conducted using electronic test equipment:
 - i. Complete the form given in Annex III.
2. The Consumer or the representative of the Consumer may:
 - a. Witness the test;
 - b. Invite a technician/electrician to witness the test; and
 - c. Take photographs of the test, excluding persons.
3. The DL shall determine if the meter is accurate or inaccurate based on the following:
 - a. The meter is considered to be accurate, if it is proved to be within the accuracy limit of plus or minus 2.5%;
 - b. The meter is considered to be inaccurate, if it is proved to be outside the accuracy limit of plus or minus 2.5%.
4. If the meter is proved to be accurate, within 10 working days of the completion of the test, the Distribution Licensee shall:
 - a. Inform the Consumer by a letter signed by the Area Engineer of the CEB or the Branch Manager of LECO, as the case may be:
 - i. The outcome of the test including the information specified in Annex II or Annex III as applicable, within 10 working days of the completion of the test; and
 - ii. The calculated error of the meter.
5. If the meter is proved to be inaccurate, the DL shall:
 - a. Inform the Consumer by a letter signed by the Area Engineer of the CEB or the Branch Manager of LECO, as the case may be:
 - i. The outcome of the test including the information specified in Annex II or Annex III as applicable, within 10 working days of the completion of the test;
 - ii. The calculated error of the meter; and
 - iii. The actions to be taken in accordance with the Methodology for Estimation of Energy Supplied approved by the Commission; and
 - b. Refund to the Consumer or back - charge from the Consumer, in accordance with the Methodology for Estimation of Energy Supplied approved by the Commission.
6. If the Consumer is not satisfied with the testing of the meter he/she may lodge a complaint to the DL in writing within 10 working days from the date of receipt of the letter mentioned in either paragraph 4.a. or 5.a. of these guidelines, as the case may be (the DL shall inform the Consumer about this option in the letter mentioned under paragraph 4.a. and 5.a. of these guidelines).

7. Upon receipt of a letter as mentioned in paragraph 6 of these guidelines, the DL shall take necessary steps to resolve the complaint made by the Consumer, within 10 working days from the receipt of the letter mentioned in paragraph 6 of these guidelines.
8. If the Consumer is not satisfied with the resolution of his/her complaint by the DL, he/she may refer the dispute to the Commission in accordance with The Electricity (Dispute Resolution Procedure) Rules (the DL shall inform the Consumer of this option in the letter mentioned under the paragraph 4.a. and 5.a. of these guidelines).
9. Testing the accuracy of metering equipment on the request of the Consumer should be carried out as per the requirements of the Distribution Metering Code of the Distribution Code (Section 5). In the event of any inconsistency between these guidelines and the Distribution Code, the Distribution Code shall prevail.

Annex I

Note: This form is to be used by the Distribution Licensee and the Consumer at the commencement of the test where a series meter is used.

Consumer's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Date:
Time of Commencing the Test:
Reading of the Test Meter:
Reading of the Customer Meter:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative:

Distribution Licensee's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Date:
Time of Commencing the Test:
Reading of the Test Meter:
Reading of the Customer Meter:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative:

Annex II

Note: This form is to be used by the Distribution Licensee and the Consumer at the conclusion of the test where a series meter is used.

Consumer's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Date:
Time of Concluding the Test:
Reading of Test Meter at the Conclusion of the Test:
Reading of Customer Meter at the Conclusion of the Test:
Date and Time of the Commencement of the Test:
Reading of Test Meter at the Commencement of the Test:
Reading of Customer Meter at the Commencement of the Test:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative:

Distribution Licensee's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Date:
Time of Concluding the Test:
Reading of Test Meter at the Conclusion of the Test:
Reading of Customer Meter at the Conclusion of the Test:
Date and Time of the Commencement of the Test:
Reading of Test Meter at the Commencement of the Test:
Reading of Customer Meter at the Commencement of the Test:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative:

Annex III

Note: This form is to be used by the Distribution Licensee and the Consumer at the conclusion of the test where electronic meter testing equipment is used.

Consumer's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Time and Date of Conducting the Test:
Error Percentage:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative:

Distribution Licensee's Copy

Serial Number of Customer Meter:
Year of Manufacture of Customer Meter:
Reference Number:
Account Number:
Time and Date of Conducting the Test:
Error Percentage:
Signature of Distribution Licensee's Representative in Charge of the Test:
Signature of Consumer or Consumer's Representative:
National Identification Card Number of the Consumer or Consumer's Representative: