



## Annex 60

### GUIDELINES FOR ASSESSING COMPLIANCE WITH THE CALIBRATION FREQUENCY REQUIREMENTS

(Version 01)

#### A. Background

1. In accordance with paragraph 176 of the Validation and Verification Manual (version 01) particularly with regard to the calibration requirements, the designated operational entity (DOE) shall verify that the calibration of measuring equipments is conducted at a frequency specified in applied monitoring methodology and the monitoring plan.
2. The Board noted that issues were raised during verification related to non-compliance with the calibration frequency requirements specified by the methodology, CDM Executive Board (CDM EB) guidance<sup>1</sup>, and/or the monitoring plan.
3. The purpose of these guidelines is to provide guidance to DOEs during verification to address the non-compliance with the calibration frequency requirements specified by the methodology, Board guidance, and/or the registered monitoring plan..

#### **B. Cases where calibration is not conducted at the frequency specified by the methodology, monitoring plan or the CDM Executive Board guidance and/or monitoring plan**

4. If during verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of emission reductions:
  - (a) Applying the maximum permissible error<sup>2</sup> of the instrument to the measured values, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error; or
  - (b) Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment.

The error shall be applied in a conservative manner such that the adjusted measured values shall result in lower baseline emissions and higher project emissions / leakage.

5. The error shall be applied for all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.
6. In cases where the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification, the DOE, prior to finalizing verification, shall request the project participant to conduct the required calibration and shall ensure that the project participant has calculated the emission reductions conservatively using the approach mentioned in paragraph 4 above.

---

<sup>1</sup> CDM EB General Guidance on small-scale methodologies.

<sup>2</sup> The maximum permissible error of all the measuring instruments are specified by the respective manufacturers as their technical specification.



7. In cases where the DOE verified that it is not possible for PP to conduct the calibration at a frequency specified by either the applied methodology, CDM EB guidance, and/or the monitoring plan due to reasons beyond the control of project participant<sup>3</sup>, the DOE prior to finalizing its verification, shall submit a request for revision of the monitoring plan.

**C. Cases where calibration frequency for measuring equipments is not specified either in the monitoring methodology or the monitoring plan**

8. In cases where neither the monitoring methodology, nor the monitoring plan specify any requirements for calibration frequency for measuring equipments, the DOE shall ensure that the equipments are calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer specification. If local/national standards or the manufacturer specification is not available, international standards may be used.

-----

**History of the document**

Version	Date	Nature of revision
01	EB 52, Annex 60 12 February 2010	Initial Adoption
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Guideline <b>Business Function:</b> Issuance, Methodology		

<sup>3</sup> For example due to the contractual terms between the project participant and purchasing/selling entities.

**Appendix-1**

The following provides an illustrative example for applying the provisions in paragraph 4(a) and 4(b).

An electricity energy meter with a maximum permissible error<sup>4</sup> ( $\pm 5\%$ ), which may be used for measuring the electricity export for baseline emissions and electricity import for project emission calculations, is required to be calibrated every year. If the calibration is delayed and instead of one year it is conducted after one and half year and the result of the delayed calibration is available at the time of verification, to account for the delayed calibration the measured values shall be corrected as demonstrated in the following table (1) and (2) for situations stipulated in paragraph 4(a) and (b) respectively for the entire verification period.

Table-1

Measured value	Parameter	Error identified during delayed calibration	Corrected Values
100 MWh	Electricity Export	$\pm 2\%$	$100 (1 - \text{Max . permissible error}\%/100) = 95 \text{ MWh}$
100 MWh	Electricity Import	$\pm 2\%$	$100 (1 + \text{Max . permissible error}\%/100) = 105 \text{ MWh}$

Table-2

Measured value	Parameter	Error identified during delayed calibration	Corrected Values
100 MWh	Electricity Export	$\pm 7\%$	$100 (1 - \text{error}\%/100) = 93 \text{ MWh}$
100 MWh	Electricity Import	$\pm 7\%$	$100 (1 + \text{error}\%/100) = 107 \text{ MWh}$

<sup>4</sup> The maximum permissible error of all the measuring equipments are specified by the respective manufacturers as their technical specification.