

# Standardized Crediting Framework (SCF) in Ethiopia

## Verification Guidance for solar lamps

Version	1.1	Date approved	DD/MM/YYYY
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# 1. Introduction

## 1.1 Scope and applicability

These Guidelines are applicable to Designated Operational Entities (DOEs)<sup>1</sup> that are under contractual arrangement with Activity Participant<sup>2</sup> to verify an SCF activity<sup>3</sup> based on methodology(ies) previously approved by the CRGE Steering Committee.

These Guidelines describe the requirements that must be met, except guidance indicated with the terms “should” and “may”.

The Guidelines have been adapted from the JCM Validation and Verification Guidance (Palau)<sup>4</sup> and CAR Verification Program Manual,<sup>5</sup> as well as inputs from other standards, so the text of the guidance is similar to those other standards in many sections.<sup>6</sup> The rationale for drawing from these manuals is that the SCF verification has two objectives:

- To confirm that the project conforms to the eligibility requirements in the listing document.<sup>7</sup>
- To verify that the emission reductions are real, accurate and additional.

Given that CDM verification covers only the second objective, this manual draws from other standards to provide additional references for guidance.

## 1.2 Normative references/Standard of verification

DOEs shall use the following standards when conducting verification:

- The current version of the applicable methodology.
- The current version of the SCF Program Protocol.
- This Verification Guidance.
- ISO 14064-3:2019.

Where these standards conflict, the approved Methodology shall take precedence, followed by the Program Protocol, this Guidance and then ISO 14064-3:2019.

ISO 14064-1:2018 and ISO 14064-2:2019 cover both conformance with the standard and the criteria for establishing that the GHG assertion is reliable and correctly stated based on the agreed level of assurance, materiality, criteria, objectives and scope. The applicable verification standards must be stated in each Verification Report.

## 1.3 Terms and definitions

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<sup>1</sup> The accredited entity designated under the relevant Crediting Mechanism, which performs Verification of the Activity performance and eligibility.

<sup>2</sup> The public or private entity that is the developer or owner of the activity (i.e., project or program) and/or has the legal right to the mitigation outcomes

<sup>3</sup> Refers to the activity (i.e., projects or programs) described in the activity documentation under the CDM, SCF, Article 6.4 Mechanism, or another Crediting Mechanism, capable of generating Emission Reductions under a crediting mechanism

<sup>4</sup> [https://www.jcm.go.jp/rules\\_and\\_guidelines/pw/file\\_06/JCM\\_PW\\_GL\\_VV\\_ver01.0.pdf](https://www.jcm.go.jp/rules_and_guidelines/pw/file_06/JCM_PW_GL_VV_ver01.0.pdf)

<sup>5</sup> <http://www.climateactionreserve.org/wp-content/uploads/2017/02/2017-Verification-Program-Manual.pdf>

<sup>6</sup> While guidance under these standards has been considered in the development of this document, the accreditation of DOEs must be under the UNFCCC or VCS, according to the current version of the Program Protocol (see footnote 9).

<sup>7</sup> The references to “eligibility requirement of the listing document” in this guidance includes the listing document requirements on stakeholder consultation and environmental assessment, as well as the section called “eligibility conditions”.

**Verification** is the periodic independent review and ex-post determination by a DOE of the eligibility requirements in the Listing Document and the monitored GHG emissions reductions as a result of a listed activity during the verification period.

A **Corrective Action Request (CAR)** is a request raised by the DOE to Activity Participant during verification in cases such as when there has been a mistake or verification requirements not been met.

A **Clarification Request (CL)** is a request raised by the DOE to Activity Participant during verification when the information provided is insufficient or unclear.

A **Forward Action Request (FAR)** is a request raised by the DOE to Activity Participant during verification if monitoring and reporting require attention and/or adjustment for the next verification.

The following terms apply in these Guidelines:

- (a) **“Should”** is used to indicate that among several possibilities, one course of action is recommended as particularly suitable;
- (b) **“May”** is used to indicate what is permitted.
- (c) **“shall”** is used to indicate a mandatory requirement

The principles for verification are the basis for, and will guide the application of, the requirements in this document, meaning<sup>8</sup>:

**Accuracy:** Reduce bias and uncertainties as far as is practical.

**Conservativeness:** In case of uncertainty regarding values of variables and parameters, their values are considered conservative if they do not lead to an overestimation of GHG emission reductions attributable to the activity (i.e. project or program).

**Relevance:** Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user.

**Completeness:** Include all relevant GHG emissions and removals.

**Consistency:** Enable meaningful comparisons in GHG-related information.

**Transparency:** Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence.

## 2. Overview of verification process

The following steps are outlined in the SCF Program Protocol (see Figure 1 and Figure 2):

- Up to eight weeks prior to the end of the monitoring period the Activity Participant requests the Ministry of Planning and Development /MoPD/ to provide a list of qualified DOEs.<sup>9</sup>
- The Activity Participant then selects and contracts a DOE.

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<sup>8</sup> Based on ISO 14064-1:2018. Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

<sup>9</sup> The SCF Program Protocol includes the following categories of qualified DOEs:

- Companies accredited as Designated Operational Entities (DOEs) by the CDM Executive Board under “Sectoral Scope 1. Energy industries (renewable / non-renewable sources)”
- Companies accredited as Accredited Independent Entities (AIEs) under Joint Implementation Supervisory Committee under “Sectoral Scope 1. Energy industries (renewable / non-renewable sources)”
- Companies accredited as Validation/Verification Bodies by the Verified Carbon Standard under “Sectoral scope 1. Energy (renewable/non-renewable)”

- The Activity Participant submits the completed Monitoring Report, Monitoring Calculation Tool and all relevant supporting documentation to the DOE.
- The DOE selects the verification team: the lead DOE and other team members shall have skills in the scopes covered by the relevant methodology and proposed activity; the team must also include a senior internal technical reviewer who is not part of site visit.
- The DOE conducts verification activities (e.g. verification plan, desk review, site visit, etc.), based on the current version of the Verification Report and Verification Guidance (i.e. this document).
- The DOE shares the Findings with the Activity Participant.
- The Activity Participant responds to the Findings, making necessary changes in documentation.
- The DOE prepares the Verification Report, including Verification Opinion, using the Verification Report form.
- The DOE submits Verification Report to the MoPD.

Figure 1. Monitoring process

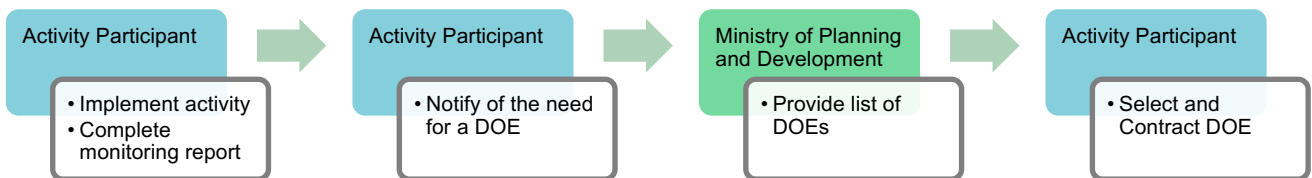
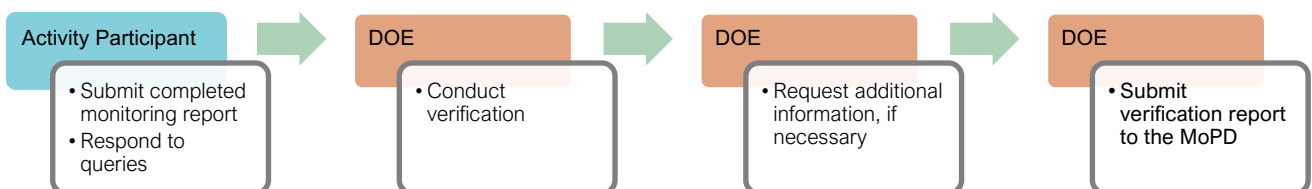


Figure 2. Verification process



### 3. General verification principles and procedures

All DOEs conducting work under the SCF shall uphold the basic verification principles. Namely, DOEs shall demonstrate independence from the activity being verified. DOEs must also demonstrate ethical conduct and fair presentation of findings, conclusions and reports throughout the verification process. All activities that undergo verification under the SCF must be treated equally, with all appropriate procedures followed. Finally, DOEs must conduct verifications with due professional care, demonstrating the skill, diligence and competence necessary to perform the verification.

Specifically, in conducting verification, DOEs shall:

- Assess the accuracy, conservativeness, relevance, completeness, consistency, and transparency of the information provided by Activity Participant;
- Determine whether information provided by the Activity Participant is reliable and credible;
- Base its findings and conclusions on objective evidence and conduct all verification activities in line with SCF rules and guidelines;
- Not omit evidence that is likely to alter the verification opinion;
- Present information in the verification report in a factual, neutral and coherent manner, documenting all assumptions, providing references to background material, and identifying changes made to documentation;
- Safeguard the confidentiality of all information obtained or created during verification.

### 3.1 Risk-based verification principle

Activity verification is an iterative, risk-based activity in which the complexity of all activity components is balanced and assessed using the DOE's professional judgment. Areas of low-complexity, or which have minimal bearing on the eligibility or quantification of activity emission reductions, shall receive low priority and attention relative to areas that have high complexity and significant implications for activity eligibility or emission reductions.

## 4. Verification activities

The section provides a brief description of activities during verification, both in verifying the eligibility of the activity according to the Listing Document and in verifying the performance of the activity.

### 4.1 Desk review of documentation

The DOE reviews, among other things, the Listing Document and its associated documentation; the Monitoring Report and associated documentation; and the Monitoring Calculation Tool.

### 4.2 Site visit

A site visit is conducted and may include visiting specific locations or facilities included in the sample groups for determining key parameters.

Where the activity has already undertaken a site visit for verification purposes under another standard (e.g. the CDM), within six months of the start of verification under the SCF, that visit may be used instead of a new dedicated visit for the SCF, as long as all of the other requirements in the Verification Template and Verification Guidance can be met.

### 4.3 Data checks and sampling plan

As part of verification, the DOE undertakes a variety of checks and cross-checks on measured and estimated parameters. Supporting evidence for measurements and reporting could be in the form of:

- Maintenance and calibration records;
- Field check reports, sampling exercises and analysis reports;
- Calculation spreadsheets and other electronic files; and
- Other types of records deemed valid according to the DOE's professional judgment.

Where the Activity Participant has selected a monitoring option for a parameter in the methodology that requires sampling, the DOE checks that the sample size matches the requirements of the methodology and that the sample has been randomly selected from the population of installed systems/household connections at the time of the survey.

#### 4.4 DOE internal review

Following the desk review, site visit and data checks, a senior internal staff member within the DOE reviews all assessments of eligibility and performance conducted so far during verification and reflected in the verification report, based on their professional judgement.

#### 4.5 Findings

Findings are the list of all identified material and immaterial errors and misstatements – they do not include solutions or potential remedies for resolution. Findings are delivered to the Activity Participant during verification so that the Activity Participant may make corrections or clarify information.

#### 4.6 Clarifications and revisions of Monitoring Report

Activity Participant replies to the clarification requests and make any necessary changes to the Monitoring Report to address all material findings.

#### 4.7 Draft Verification report

The draft verification report shall document all findings and the corrections or corrective actions taken by Activity Participant to address the findings, as well as the process followed in verification.

#### 4.8 Final verification report and opinion

The final verification report shall confirm whether the activity meets all eligibility requirements, monitoring requirements, and has no material non-conformance or misstatement. The verification statement and opinion shall be explicit, conclusive and unequivocal.

## 5. Verification requirements

### 5.1 General requirements

#### 5.1.1 Verification approach

In carrying out its verification activities, a DOE determines whether the activity complies with the requirements of the Listing Document, applied methodology(ies), these Guidelines, and the Program Standard. The focus of verification activities is assessment that the following are complied with:

- The eligibility criteria stipulated in the Listing Document and applied methodology of implemented activities are satisfied.
- The data used in monitoring reports is credible and reliable.
- Double registration is avoided, where relevant.
- There are no post-listing changes to the activity that prevent the use of the applied methodology or fail to comply with the Listing Document requirements.

The assessment involves a review of relevant documentation as well as an on-site visit, at least for the first verification (see section 4.2). In addition to the documentation concerning monitoring activity, the DOE reviews the following:

- The Listing Document, Completeness Check and all attached documentation for the listed activity.
- Previous verification reports, if any.
- The applied methodology.
- The Monitoring Report and Monitoring Calculation Tool to verify that it is completed as per the applied methodology, and with the correct data inputs.
- Any other information and references relevant to the activity's emission reductions.
- The written confirmation of the avoidance of double registration, where relevant.

In addition to reviewing the monitoring documentation, the DOE determines whether the Activity Participant have addressed the FARs identified during previous verification(s).

### **Quality of evidence**

When verifying the reported emission reductions, the DOE confirms that there is an audit trail that contains the evidence and records that validate or invalidate the stated values in the Monitoring Calculation Tool. It includes the source documents that form the basis for calculations and other information underlying the emission reductions values.

When assessing the audit trail, the DOE:

- Addresses whether there is sufficient evidence available, both in terms of frequency (i.e. time period between evidence) and coverage (i.e. in covering the full monitoring period).
- Addresses the source and nature of the evidence (e.g. external or internal, oral or documented).

The DOE only verifies emission reductions that are based on verifiable evidence.

### **5.1.2 Means of verification**

The DOE assesses the information provided by the Activity Participant. In assessing information, the DOE applies the means of verification specified throughout these Guidelines, including but not limited to:

- Document review; and
- On-site assessment.

Where no specific means of verification is specified, the DOE applies appropriate auditing techniques and professional judgement to ensure adherence to the verification principles in section 3.

### **Corrective action requests, clarification requests, and forward action requests**

The DOE identifies, discusses and concludes in the verification report issues related to the eligibility, monitoring, implementation and operations of the listed activity that could impair the capacity of the listed activity to achieve emission reductions or influence the monitoring and reporting of emission reductions.

The DOE raises a CAR if one of the following situations occurs:

- Non-compliance with the Listing Document or applied methodology is found in implementation and operation of the activity, or the evidence provided to prove conformity is insufficient.
- Modifications which prevent the use of the applied methodology to the implementation, operation and monitoring of the listed activity has not been sufficiently documented by the Activity Participant.

- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions.
- Issues identified in a FAR during previous verification(s) to be verified have not been resolved by the Activity Participant.

The DOE raises a CL if information is insufficient or not clear enough to determine whether the applicable requirements of the Listing Document, applied methodology and listed activity documentation have been met.

All CARs and CLs raised by the DOE during verification are resolved prior to submitting a request for certification.

The DOE raises a FAR during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

The DOE reports on all CARs, CLs and FARs in its Verification Report. This reporting is conducted in a transparent manner that allows the reader to understand the issue raised, the responses provided by the Activity Participant, the means of verification of such responses, and references to any resulting changes in the monitoring report or supporting annexes.

### 5.1.3 Level of assurance

Level of assurance refers to the degree of confidence a verification body can provide for the accuracy of the GHG reductions asserted, in line with ISO14064-3:2019. The DOE shall provide a direct factual statement expressing the outcome of verification with “reasonable assurance<sup>10</sup>”. To do so, the DOE shall confirm the accuracy of all data at a reasonable level.

### 5.1.4 Materiality

Data and information are material if their omission or error could influence the decisions and actions resulting from this information, in line with ISO 14064-3:2019. The DOE must therefore consider the materiality of all identified errors or uncertainties. Any issues encountered during verification must be classified as either material (i.e. significant) or immaterial (e.g. insignificant). Reported emission reductions must then be free from any material errors or misstatements. In terms of quantitative impact on emission reductions, the threshold for materiality is a 90% accuracy level overall. In other words, the DOE must be able to justify that any errors or misstatements would not, in combination, result in errors of more than 10% of total emission reductions.

## 5.2 Verification compliance

### 5.2.1 Compliance of the activity with requirements in the Listing Document and applied methodology

#### Verification requirement

The DOE determines the conformity of the actual activity and its operation with the requirements in the Listing Document (e.g. eligibility conditions, stakeholder consultation requirements, environmental assessment requirements) and the applied methodology.

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<sup>10</sup> For reasonable assurance, the verification opinion is expressed in positive terms: “on the basis of the checks we have undertaken, the reported data **are** materially correct”.

### **Means of verification**

The DOE assesses, by means of an on-site visit (except as provide for in section 4.2), that the physical features of the activity are in place and that the Activity Participant have operated the activity as per the eligibility criteria of the applied methodology. If an on-site visit is not conducted after the first verification, the DOE justifies the rationale of the decision.

### **Reporting requirements**

For each monitoring period, the DOE reports the compliance with the eligibility criteria of the applied methodology.

## **5.2.2 Assessment of activity implementation against the Listing Document Verification requirement**

The DOE assesses the status of the actual activity and its operation in relation to the approved Listing Document.

### **Means of verification**

The DOE assesses, by means of an on-site visit at least for the first verification (except as provided for in section 4.2), that physical features of the activity in the Listing Document for the activity are in place and that the Activity Participant have operated the activity as per the Listing Document of the activity.

### **Reporting requirements**

For each monitoring period, the DOE reports changes from the listed template of the activity.

## **5.2.3 Assessment of data and calculation of GHG emission reductions**

### **Verification requirement**

The DOE assesses the data and calculations of GHG emission reductions achieved by/resulting from the activity by the application of the selected approved methodology. The DOE confirms that the sampling approach meets the requirements of the methodology.

### **Means of verification**

The DOE determines whether:

- The corresponding Monitoring Calculation Tool of the applied methodology has been used;
- A complete set of data for the specified monitoring period is available. If partial data are unavailable, the DOE either gives negative verification opinion for that time period during which the data are unavailable in the monitoring period or seeks guidance from the MoPD;
- The sample chosen, where relevant, has been selected randomly from the population of installed systems/household connections at the time of the survey and the sample size matches the requirements of the methodology;
- Information provided in the monitoring report has been checked with sources such as plant logbooks, inventories, purchase records, laboratory analysis;
- Any assumptions used in emission calculations have been justified;
- Appropriate emission factors, default values, and other reference values have been correctly applied.

### **Reporting requirement**

The Verification Report contains:

- A confirmation that appropriate Monitoring Calculation Tool of the applied methodology has been used;
- A confirmation that a set of data for the specified monitoring period was complete, or a list of actions taken by the DOE in line with the guidance from the MoPD when partial data are unavailable;
- A description of how the DOE checked reported data;
- An opinion as to whether assumptions, emission factors, default values, and other reference values that were applied in the calculations have been justified.

#### 5.2.4 Assessment of avoidance of double registration

The SCF will not issue any credits, however, and will only provide an alternative MRV process for assessing the mitigation impact of the activity. For this reason, a provision to avoid double registration is not required at this stage. However, if the SCF is extended by the Ethiopian government, or other activities are considered for participation, verifying the avoidance of double registration will be necessary.

#### 5.2.5 Assessment of post-listing changes

Post-listing changes to the listed activity template are not anticipated, both because the Listing Document has been simplified in comparison to the project documentation required for the CDM and because the monitoring methodology and templates are designed with Ethiopia's data availability and existing monitoring processes. However, if differences are encountered during the verification process, as long as the activity still meets the eligibility requirements for the Listing Document and applied methodology, the Activity Participant may submit a revised Listing Document as part of verification. If the SCF is extended by the Ethiopian government, or other activities are considered for participation, then additional provisions may be needed for verifying the correct application of post-listing changes.

## 6. Verification report

The Verification Report gives an overview of the verification conclusions and the verification process used by the DOE. All verification findings are identified and justified.

The DOE reports the following:

- The objectives and scope of verification, including the specific period for which the verification is conducted and the reports that have been verified.
- The oversight body that has approved the DOE.
- Details of the verification team, lead DOE, technical experts, and internal reviewers involved, together with their roles in the verification activity and details of who conducted the on-site visit.
- Findings of the desk review and site visit.
- All the DOE's means of verification, findings and conclusions as to whether:
  - The activity has been implemented and operated in line with the Listing Document and the applied methodology;
  - Omissions or misstatements of reported values are considered as immaterial;
  - The measuring equipment has been calibrated in line with the methodology requirements and the measured values are corrected appropriately, if necessary;
  - The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed.

- A list giving each parameter specified in the Monitoring Report, the date(s) when it was collected, and a statement on how the values in the Monitoring Report and Monitoring Calculation Tool have been verified.
- An assessment and close-out of any CARs, CLs or FARs issued to the Activity Participant.
- An assessment of remaining issues from the previous verification period, if appropriate.
- A summary of the verification process.
- Where relevant, recommendations for improvement in accuracy and transparency of reporting; and robustness of data accounting and control processes.
- Other relevant information that the DOE may want to bring to the attention of the MoPD.
- A summary of the verification results, verification opinion and decision on the level of assurance;
- The verified amount of emission reductions achieved.
- Date and signature of an authorised person signing on behalf of the DOE.

The DOE describes all documentation supporting verification and makes such documentation available upon request.

## 7. Version history

Version	Date	Contents revised
1.1	DD/MM/YYYY	Initial adoption