AENOR

SUSTAINABILITY VERIFICATION REPORT for the Gold Standard CPA-001:

"ASYV 8.5MW Solar PV Project"

of the POA:

"Gigawatt Global Programme of Activities"

in RWANDA

Coordinating Entity:

Gigawatt Global Coöperatief U.A.

(Gold Standard ID Number: GS3587

UNFCCC Registration ID Number: 10202)

MONITORING PERIOD:

23 October 2015 to 28 February 2017

AENOR Reference nº: 2017/190/CDM/25

“1st” PERIODIC VERIFICATION
“Gigawatt Global Programme of Activities”

Verification Report:	AENOR Reference nº:		Version of this document:	Date of this rev.:
	2017/190/CDM/25		04	06/03/2018
Project:	Title:			GS Reference
	Gigawatt Global Programme of Activities			GS3587
Project Participant(s):	Gigawatt Global Coöperatief U.A.		-	
	Host Party:		Other involved Parties:	
	Rwanda		-	
Applied methodology/ies:	Title:		Code:	Version
	Grid connected renewable electricity generation		AMS-I.D	18.0
Monitoring report:	Title:		Draft version:	Final version:
	Sustainability Monitoring Report Form - Gigawatt Global Programme of Activities		01	02
Emission reductions:	Monitoring period:	Verified amount	As per draft MR:	As per CPA-DD:
	23/10/2015-31/12/2015 01/01/2016 - 31/12/2016 01/01/2017 – 28/02/2017	2015: 1,558 tCO_2 2016: 9,322 tCO_2 2017: 1,489 tCO_2	12,207	10,264
Previous versions of this document:			Version:	Date:
			1	11/07/2017
			2	13/07/2017
			3	01/12/2017
Summary of verification:	AENOR INTERNACIONAL S.A.U., hereinafter AENOR, has performed the first verification of the CDM/GS Programme of Activities “Gigawatt Global Programme of Activities” (hereafter referred to as “the PoA”) registered by Gold Standard (reference No. GS3587) and UNFCCC (id number 10202) for the period 23/10/2015 – 28/02/2017. The PoA is located in the geographical area of Rwanda and aims to support the development and implementation of utility scale solar photovoltaic (PV) projects in Rwanda, thereby displacing grid-connected, fossil fuel based electricity generation, by promoting grid-connected renewable energy based electricity generation. As such, the PoA will contribute in reduction of greenhouse gas (GHG) emissions.			

	This monitoring period includes the implementation and monitoring of one CPA, as part of registered PoA, within the territory of Rwanda, ASYV 8.5MW Solar PV Project (CPA-001). AENOR confirms that the project is implemented in compliance with registered CPA-DD (version 05, date 08/10/2015), revised CPA-DD (version 07, 14/11/2017), POA-DD (version 05, 08/10/2015), POA-GS Passport (version 03, 14/10/2016) and CPA GS Passport (version 06, 14/10/2016). The verification has been conducted in accordance with the UNFCCC Validation and Verification Standard for Programme of Activities, version 01.0 as well the Gold Standard Requirements V 2.2. AENOR opinion relates to the Sustainability Monitoring Plan and Process, and sustainability parameters. Clarifications and corrective actions on a number of issues were requested by AENOR according to the desk review and on-site visit conclusions; these were amended satisfactorily by the Coordinating Entity, Gigawatt Global Coöperatief U.A. and resulted in a new version of the original Sustainability Monitoring Report. Based on the information checked and evaluated, **AENOR is able to certify that the emissions reductions from the "ASYV 8.5MW Solar PV Project (CPA-001) project during the period from 23/10/2015 – 28/02/2017 amounts to :** • 23/10/2015 to 31/12/2015: 1, 558 tCO_2 • 01/01/2016 to 31/12/2016: 9, 322 tCO_2 • 01/01/2017 to 28/02/2017: 1, 489 tCO_2
Report prepared by:	Climate Change Unit. AENOR

Abbreviations

AENOR	AENOR INTERNACIONAL S.A.U.
AMD-I.D	Grid connected renewable electricity generation, version 18.
CAR	Corrective action request
CDM	CDM Clean Development Mechanism
CDM-EB	CDM Executive Board
CER	Certified Emission Reduction(s)
CL	Clarification Request
CME	Coordinating or Managing Entity
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
COD	Commercial Operation Date
CO_2	Carbon Dioxide
CO_2e	Carbon dioxide equivalent
CPA	Component project activity
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board of the CDM of the Kyoto Protocol
ER	Emission Reductions
EUCL	Energy Utility Corporation Limited
FAR	Forward action request
GHG	Greenhouse Gases
GS	Gold Standard
GS-Toolkit 2.2	Gold Standard Energy Toolkit
GS-Requirements 2.2	Gold Standard Energy Requirements
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MR	Monitoring Report
MWh	Megawatt hour
N/A	Not applicable
PoA	Programme of Activities
CPA-DD	Component project activity design document form
PoA-DD	Project Design Document form
PP	Project participants

PRC	Post-registration changes
PS	Clean Development Mechanism Project Standard for programme of activities (Version 01.0)
REA	Rwanda Energy Group
tCO_2e	Carbon dioxide equivalent tonnes
UNFCCC	United Nations Framework Convention on Climate Change
VVS	CDM Validation and Verification Standard for Programme of Activities (version 01.0)

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1 INTRODUCTION

Gigawatt Global Coöperatief U.A. commissioned AENOR to carry out the verification and certification of the sustainability report prepared for the POA Gigawatt Global Programme of Activities (GS3587) and first CPA titled *ASYV 8.5MW Solar PV Project* for the period 23/10/2015 - 28/02/2017. This report contains the findings from the verification and a certification statement for the sustainability parameters according to the GS Energy Requirements version 2.2.

1.1 Objective

The purpose of the verification is the periodic independent review and determination by the DOE of the monitoring the impact of project activity on sustainable development and in verifying that the project has indeed contributed to sustainable development and/or severe negative environmental, social and/or economic impacts are prevented.

Certification is the written assurance by the DOE that, during a specified time period, a project activity achieved the reductions in anthropogenic emissions by sources of greenhouse gases as verified and the monitoring of sustainability impacts.

1.2 Scope

The verification, as an independent and objective review, shall assess and verify that the implementation of the project activity and the steps taken to report emission reductions and the monitoring of sustainability parameters comply with the GS criteria and relevant guidance provided by the GS Board. The verification shall:

1. Ensure that the project activity has been implemented and operated as per the PoA-DD /1/ and CPA-DDs /2-3/, POA-Passport /4/ and CPA Passport /5/ and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place. It is, therefore, necessary to:
    - Interview relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the revised monitoring plan.
    - Check the monitoring equipment, including calibration performance and observations of monitoring practices, against the requirements of the revised CPA-DD and the selected methodology.
    - Check that the manual operating provisions are duly followed (processes, routines, instructions, forms and the like).

2. Ensure that the GS Sustainability monitoring report /6/ and CDM Monitoring Report /7/ and other supporting documents provided are complete and verifiable and in accordance with applicable GS requirements. It is, therefore, necessary to:
    - Review relevant documentation and conduct an on-site visit(s).
    - Review data and information presented to verify their completeness.
    - Review indicators that must be addressed in the revised monitoring plan.
    - Review the revised monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures.
3. Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the revised monitoring plan and the approved methodology, carrying out:
    - A review of information flows for generating, aggregating and reporting the monitoring parameters.
    - A cross-check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources.
    - A review of calculations and assumptions made in determining the GHG data and emission reductions.
    - A review of the project documentation provided by the project participant to check that is based upon both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the monitoring report submitted to the DOE. Qualitative information comprises information on internal management controls, calculation procedures, and procedures for transfer of data, frequency of emissions reports, and review and internal audit of calculations.
4. Evaluate the data recorded and stored as per the monitoring methodology (, carrying out:
    - An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.
    - Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.
5. Identify and inform the project participant of any concerns related to the project's activity and operation conformance with the revised project design document. Project participant shall address the concerns and supply additional relevant information.

6. Provide a verification report to the project participant, the Parties involved and the GS Board. The report shall be made publicly available.

The verification is not meant to provide any consultancy services to the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring report.

AENOR, based on the Specific Instruction for the Validation, verification and certification of clean development mechanism (CDM) project activities (IE/DTC/039) /8/, which is in turn based on the last CDM requirements, has used a risk-based approach in the verification, focusing on the identification of significant risks for the generation of ERs and verifying the mitigation measures for these issues.

1.3 Description of the Project Activity

Host Country:	Rwanda
Title of POA:	"Gigawatt Global Programme of Activities"
Title of CPA:	"ASYV 8.5MW Solar PV Project (CPA-001)"
GS registration No:	GS3587
Project Participant:	Gigawatt Global Coöperatief U.A.
CPA´s crediting period:	23/10/2015 – 22/10/2022 (Renewable)
Verification period:	23/10/2015 to 28/02/2017
CPA Inclusion date:	23/10/2015

The validation and previous verifications are summarized below:

Process	DOE	Crediting period	Date	Amount of CERs
Validation	ERM	23/10/2015 – 22/10/2022	20/10/2016	10,264 tCO_2/y
1st verification	AENOR	23/10/2015 to 28/02/2017	02/01/2018	12,369

2 METHODOLOGY

The verification has assessed the quality of the information, including:

- A desk review of the relevant information of all issues that constitute the basis for emission reductions from the project and the monitoring of the sustainability parameters.
- On-site inspections; a review of performance records, interviews with project participant and local stakeholders, collection of measurements, observation of established practices and testing of equipment.
- A review of additional data from other sources relevant to the project activity (tests, surveys, training, etc).

Special focus is given on:

- The proper implementation of the project as described in the CPA-DD
- The data collection system, verifying that it meets the requirements of the sustainability monitoring plan as per the applied methodology.
- Whether sufficient evidence is available, both in terms of frequency (time period between evidence) and in covering the full sustainability monitoring period.
- The source and nature of the evidence (external or internal, oral or documented).

The verification has been performed as per requirements described in the Gold Standard Energy Requirements version 2.2 /9/, GS Energy Toolkit version 2.2 /10/ and CDM Validation and Verification Standard for Programme of Activities version 01.0 /11/ and constitutes the review and completion of the following steps:

1. Review the registered POA-DD, CPA-DD, CDM Monitoring Report and Sustainability Monitoring Report;
2. Upload of GS Verification Work plan /12/ (16/05/2017);
3. On-site assessment (29/05/2017);
4. Review of the applied monitoring methodology (AMS-I.D version 18) /13/;
5. Review of any CMP and EB decisions, clarifications and guidance and the Gold Standard Secretariat;
6. Desk review of the MR, sustainability MR, and other relevant documents including documents related to the project sustainability assessment;
7. Resolution of CARs and CLs raised during verification;
8. Issuance of Verification Report.

The available information from sources other than that used in the last version of the sustainability monitoring report were cross-checked to confirm that the stated figures included in it are correct.

The verification of the sustainability monitoring plan has assessed all factors and issues that constitute the basis for emission reductions from the CPA, as detailed in the Verification Protocol, included in this report as Annex 1.

2.1 Verification Steps

Preparations: From 01/05/2015 to 28/05/2017
On-site verification: 29/05/2017
Reporting: From 29/05/2017 to 21/07/2017

2.1.1 Appointment of team members and technical reviewers

The list of involved personnel and the qualification status are summarized in the table below. The details of the persons that visited the project site are included as well.

Function	Qualification in Technical Area related with the project activity	Name	Visited the project site YES/NO
Team leader	1.2	Mercedes Garcia Madero	YES
Verifier	1.2	Alfonso Medrano Gutierrez	NO
Technical Reviewer	1.2	Elena Llorente Perez	NO

Technical areas (TA) mentioned above correspond to the following:

TA code	Technical area
1.1	Thermal energy generation
1.2	Renewables
2.1	Energy distribution
3.1	Energy demand
4.1	Cement and lime production
5.1	Chemical industry
5.2	Caprolactam, nitric and adipic acid

TA code	Technical area
6.1	Construction
7.1	Transport
8.1	Mining/mineral production
9.1	Aluminium and magnesium production
9.2	Iron, steel and Ferro-alloy production
10.1	Fugitive emissions from oil and gas
11.1	Emissions of fluorinated gases
11.2	Refrigerant gas production
12.1	Chemical industry
13.1	Solid waste and wastewater
13.2	Manure
14.1	Afforestation and reforestation
15.1	Agriculture
16.1	Carbon capture and storage

2.1.2 Review of Documentation

After the on-site visit, and due to the on-site visit conclusions, the sustainability monitoring report was updated to address the CARs and/or CLs, and a final version of the monitoring report dated on 01/06/2017 had to be edited.

The desk review involved a review of:

- Project documentation: CPA-DD and registered Passport, Validation Reports /14-15/, GS Boards' validation report.
- Relevant decisions, clarifications and guidance from the GS Board and the CDM Executive Board.
- The sustainability monitoring plan and the applied monitoring methodology, paying close attention to the measurement methods, and the quality assurance and quality control procedures.

- The data and information presented to verify their completeness, including the sustainability monitoring report and the measuring records of the different monitored parameters.
- The influence of data management and the quality assurance and quality control system on the generation and reporting of emission reductions.

A complete list of all documents reviewed is attached in this report.

2.1.3 Site Visit

As the most essential part of the verification exercise, it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission reductions and monitoring of sustainability parameters. Changes to the key sustainable development indicators and the achievement and implementation of mitigation / compensation measures are integral parts of the on-site assessment.

On 29 May 2017, one member of AENOR, Mercedes García Madero visited the project in Rwanda. During the on-site visit the verification team was able to complete:

- An assessment of the implementation and operation of the project activity as per the PoA-DD, CPA-DD and the registered GS Passport.
- A review of information flows for generating, aggregating and reporting the sustainability monitoring parameters.
- A cross-check between information provided in the sustainability monitoring report and data from other sources such as logbooks, inventories, training certificates, contracts with providers, purchase records or similar data sources.
- A check of the monitoring practices against the requirements of the CPA-DD and the selected methodology.
- A review of calculations of the indicators and assumptions made.
- The data aggregation trails were checked via spot sample down to the level of the recordings
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan and the CPA-DD. Representatives of GigaWatt (the coordinating entity, Carbon Africa (consultancy firm) and Scatec (CPA implementer) including the operational staff of the project were interviewed. The main topics of the interviews are summarised.

Interviewed organization Person/Position	Interview topics
SCATEC - Mr. Twaha Twagirimana. Operation and Maintenance Technician SCATEC. - Samson Niyonsaba. Stakeholder - • Stellah Koshaba. Stakeholder	✓ CPA presentation and design ✓ Environmental Assessment. ✓ Stakeholder consultation ✓ PoA-CPA Management System ✓ CPA implementation ✓ Sustainability parameters ✓ Opinion about the project ✓ Feedback from the community
Carbon Africa - Carsten Jung. Carbon Consultant. - Kevin Kerigu. Carbon Consultant.	✓ CPA presentation and design ✓ Environmental Assessment. ✓ Stakeholder consultation ✓ PoA-CPA Management System ✓ CPA implementation ✓ Sustainability parameters
Gigawatt cooperatif - Mr. Michael Fichtenber. Programme Coordinator	✓ Monitoring ✓ Data Management

2.1.4 Findings

As an outcome of the verification process, the team can raise different types of findings according to the CDM Validation and Verification Standard.

Corrective Action Requests (CARs) are issued, where:

(a) Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;

(b) Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;

(c) Issues identified in a FAR during verification to be verified during verification have not been resolved by the project participants.

Clarification Requests (CLs) are issued if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FARs) are issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

The project participants were requested to address all verification findings and finally provided the verification team with sufficient evidence to determine that the applicable CDM requirements have been met. The project participant modified the initial monitoring report to resolve the verification team concerns and resubmitted a final version. AENOR has prepared this report based on the final monitoring report.

All the verification findings are summarized in section 3 below and documented in more detail in section 5 and in the verification protocol included in Annex 1.

2.1.5 Internal Quality Control

Following the completion of the assessment process by the verification team, all documentation undergoes an internal quality control through a technical review before the request for Issuance of ERs is submitted. The Technical reviewer is a qualified member of AENOR, independent from the team that carried out the verification of the project activity. The technical reviewer or the team appointed for the technical review is qualified in the technical area(s) and sectoral scope(s) of the project activity.

3 VERIFICATION FINDINGS

The summary of CAR, FAR and CL issued are shown in Table below:

	Verification topic	**No. of CAR**	**No. of CL**	**No. of FAR**
1	Sustainability verification	**CAR 1**		
2	Project implementation			
3	Update on changes and incidents			
4	Compliance with the registered sustainability monitoring plan			
6	Safeguard principles			
7	SD Monitoring Parameters	**CAR 2**	**CL 1-7**	
8	Quality of Evidence to determine ER			
9	Management System and Quality Assurance			
	SUM	**2**	**7**	

All raised CARs, CLs and FARs are shortly explained briefly in the following sections. For an in depth evaluation of all verification items it should be referred to the verification protocol (see Annex).

3.1 Remaining issues, CARs, FARs from Previous Validation or Verification.

No CARs or FARs are remaining from the validation process.

3.2 Post-registration sustainability monitoring plan changes to specific-case CPA(s)

No post registration changes are requested for this monitoring period.

3.3 Sustainability verification

The sustainability monitoring report (and other supporting documents) provided is complete, free of misstatements and transparent, clear and unequivocal in accordance with latest applicable version of the GS Energy Requirements v 2.2.

3.4 Project Implementation

The registered CPA-DD, and the monitoring reports (GS and CDM) are available on the UNFCCC and GS website. The CPA was included into the PoA on 23/10/2015 and it was revised during the CDM Verification as result of a PRC process, detailed in next paragraphs.

During the on-site visit made on 29th May 2017 the audit team verified the correct implementation of the component project activity, and documentation has been provided. The technical description included in the CPA is consistent with the documentation provided and the situation verified on site. The single line diagram /16/ dated on 13/11/2014 is provided which states the installation of 1,418 strings with 20 solar modules each one, therefore, finally 28,360 modules are installed in the project activity, type BYD300P6C-36 of 300 W, with 8 units of inverters that imply a peak power of 8,508 kWp.

The CME has identified one permanent change, considered as correction to the information fixed at registration, in accordance with paragraph 230 of the CDM Project Standard for Programme of Activities:

- Number of installed solar modules: number of solar modules indicated in the registered CPA-DD version 05 is 28,340, nevertheless, finally, the number of installed modules is 28,360, but the capacity of them is the same, 300 W. Taking into account that the peak capacity remains the same, this change is included as a correction. One CAR was raised during the validation process regarding the category of the changes proposed since it was considered as permanent change instead a correction of fixed information. The audit team using the on-site inspection and the documented reference determines that the final number of installed solar modules reflects the actual information of the project and the application of the methodology is not affected since the installed capacity fixed at registration remains the same. For that reason, the audit team determines that the corrected information included in final version of the CPA-DD is an accurate reflection of actual information, and total installed capacity of the power plant and the emission reductions calculation and monitoring is not affected by the changes. Therefore, the corrected parameter is in accordance with the applied methodology and the registered monitoring plan in accordance with paragraph 257 of the CDM Validation and Verification Standard for programme of Activities.

On the other hand, a change in the starting date of the crediting period of the CPA was requested to the UNFCCC Secretariat trough an e-mail sent on 27th April 2017 by the coordinating entity. The change in the date is less than a year, therefore, in accordance with the paragraph 232 (a) of the CDM project standard for programmes of activities (version 01.0). A copy of the notification /19/ was sent to the audit team, and properly change was made in the UNFCCC webpage.

And finally two permanent changes to the registered monitoring plan were identified:

1. Meter installation: The registered CPA-DD states that a total of four meters will be installed. Three of them to measure the energy supplied to the grid and the fourth one to measure the electricity supplied from the grid. Nevertheless, only three meters have been installed:

- Main meter: Operated by the CPA implementer.
- Back-up meter: Operated by the Rwanda Energy Group (REG).
- Auxiliary meter: Operated by REG to meter electricity use during the night time.

The main and back up meter measure the electricity supplied to the grid, and the auxiliary meter the electricity supplied from the grid. Therefore, the measurements of electricity supplied to and from the grid are guaranteed with these three meters. During on site visit, it has been verified and confirmed that the auxiliary meter is operated by the CPA implementer, and it is used to meter certain electrical loads as site building and lighting. But, this meter is not used for billing purposes. The main and back up meters are both bidirectional, and they measures exported and imported electricity to and from the grid.

2. Accuracy of the meters: In accordance with the registered CPA, the meters will be of class 0.5S for active and 2 for reactive. Nevertheless, the meters installed are more accurate being class 0.2S for active and 0.5S for reactive. During on site visit, the calibration certificates /17-18/ of the main and back-up meters are provided, and the accuracy has been checked.

AENOR during on site visit verified that the description included in final version of the Monitoring Report is consistent with the real situation and supported by documentation, line diagram and calibration certificates. The audit team determines that the corrected information is an accurate reflection of actual information, and total installed capacity of the power plant and the emission reductions calculation and monitoring is not affected by the corrections. Therefore, it is considered that the corrected information accurately reflects the actual information and therefore it is in accordance with GS Energy Requirements V 2.2.

Therefore, the audit team confirms that the project activity is completely operational as per the CPA-DD. AENOR verification team confirms that:

- The implementation status is consistent with the registered latest version of the CPA-DD and related POA-DD;
- The actual operation of the Programme is as per the registered latest version of the PoA-DD;
- Information (data and variables) provided in the monitoring reports is in accordance with that stated in the registered latest version of the PoA-DD.
- Sustainability monitoring Report and other supporting documents, such as the calculation spreadsheets and database were in accordance with the requirements of the GS.
- Sustainability Monitoring Report was free of material misstatements and transparent, and it includes clear, complete and unequivocal information in accordance with the CPA-DD.

3.5 Update on changes and incidents

No specific events occurred during the monitoring period that could be considered likely to affect the overall operation of the project.

3.6 Compliance with the registered sustainability monitoring plan

The monitoring system complies with the sustainable monitoring plan. All the non-neutral parameters have been discussed in the monitoring report. The "way of monitoring" as stated in the registered POA-DD, CPA-DD and the GS passports has been followed. The monitoring parameters and the data in the SD matrix have been checked and cross-checked against the supporting documents. All mitigation measures have been put in place to prevent the violation of the "do no harm assessment" or to neutralise a SDI.

3.6.1 Safeguard principles

The next table summarizes the outcome of the 'Do no Harm' Assessment in the Gold Standard Passport, and lists the safeguard principles for which a mitigation principles has been identified.

AENOR verified that the safeguard principles identified by the Gold Standard are relevant for all projects; however for this project no mitigation measures are to be monitored according to the GS Passport registered for this CPA.

Safeguarding principles	Application of mitigation measure
1. The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses.	Not required
2. The project does not involve and is not complicit in involuntary resettlement.	Not required
3. The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage	Not required
4. The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights	Not required
5. The project does not involve and is not complicit in any form of forced or compulsory labour	Not required
6. The project does not employ and is not complicit in any form of child labour	Not required
7. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.	Not required
8. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.	Not required
9. The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.	Not required
10. The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional local communities.	Not required
11. The project does not involve and is not complicit in corruption.	Not required

3.6.2 SD Monitoring Parameters

AENOR verified that all the parameters related to social and sustainability have been listed in the Monitoring Report in a complete manner. The following table summarizes the way in which every parameter was verified:

Indicator	Score	Verification approach
GS-01 Air quality	0	In accordance with the Sustainability monitoring report, this indicator is measured through two monitoring parameters: • Parameter 1: Daily site observation to determine frequency of water sprinklers used during the construction to avoid dust phase. This parameter shall be monitored in a daily frequency. • Parameter 2: Vegetation coverage within the project site, measured in a monthly basis. Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of both parameters as part of the EIA compliance requirements reported. Three reports (ASYV PV Facility 2014 Compliance Reports, 2015 and 2016 /20/21/22/, Environmental and Social Monitoring reports) have been provided to the audit team. Routine maintenance including vegetation management, cleaning of roads and water management during high rains is undertaken by Scatec Solar. These activities require the procurement of local staff and products. The score of the indicator is 0 in accordance with the Sustainability Monitoring Report since there is no dust caused by any construction activity. And on the other hand natural vegetation is kept on the entire site. Bamboo and vetifer grass (C*hrysopogon zizanioides*) planted on the site substantial spaces, grass and weaker vegetation is subject to trimming (brush cutting or using hand slathers) to be left in situ on site to allow seeding and not subject to collection, vegetation is kept at acceptable height (however not less than 10 cm from the ground). Larger woody shrubs are pruned or removed and collected. During on site visit the bamboo and vetifier plantation have been verified.

Indicator	Score	Verification approach
GS-02 Soil condition	0	In accordance with the Sustainability monitoring report, this indicator is measured through the monitoring of signs of water eroded landscapes and soil accumulation or deposits on the project site. This parameter is measured through site inspection of eroded landscapes and soil accumulation of deposit in a weekly basis during construction, and at least monthly during operation. Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of this parameter. The Compliance annual reports for 2014, 2015 and 2016 have been provided, and also during on site visit the drainage system could be verified. On the other hand, the vetiver and bamboo grass attenuate water flow over open surfaces and hence no significant soil erosion nor flooding has been incurred on or off site during the reporting period. The score of the indicator is 0 in accordance with the Sustainability Monitoring Report. An appropriate drainage system has been installed and the project site has been well landscaped during the monitoring period and no signs of soil erosion appeared. Evidence is provided in annual Environmental and Social Monitoring Reports.
GS-03 Noise pollution	0	In accordance with the Sustainability monitoring report, this indicator is measured through the monitoring of the number of protective gear used by employees working near machines emitting more than 70db. Regular monitoring of use of protective gear took place through site inspection during the construction period in a weekly basis. No monitoring takes place during operational phase as no heavy machinery is used during the operation of the plant. The responsible entity to monitor this parameter during construction phase was Scatec Solar Africa (Pty) Ltd through the site induction manual and training attendance sheet signed by the workers. A sample of training attendance sheets /23/ signed have been verified by the audit team regarding different training process related to the noise pollution, like risk assessment training, site induction training, Personnel protective equipment and electrical safety. Therefore, it is considered that the monitoring of the parameter is appropriate.

Indicator	Score	Verification approach
GS-04 Solid waste pollution.	0	In accordance with the Sustainability monitoring report, the management of solid waste pollution is controlled by putting in place measures that reduce, re-use, recycle and safely dispose of any waste matter that cannot be reused. This is monitored by assessing the records of solid waste disposal in a monthly basis. Scatec Solar Africa (Pty) Ltd is responsible to monitor it. The monitoring of this indicator is documented in the Environmental and Social monitoring reports, provided to the audit team. On the other hand, the invoices /24/ of the company named *Waste collection for recycling*, contracted for the waste management (as it has been checked through the signed contract) is provided. The invoices are dated on 29/06/2014, 03/07/2014, 23/09/2015, 04/03/2016, 29/07/2016 and 15/12/2016. The company manages the wastes every time that the container is full, and the monitoring of this parameter is detailed also in the Compliance annual reports for 2014, 2015 and 2016 provided.
GS-05 Biodiversity	+	In accordance with the Sustainability monitoring report, this indicator is measured through two parameters: • Parameter 1: Number of *Erythrina abyssinica* trees relocated (locally name as "umuko". • Parameter 2: Vegetation cover on areas that were previously identified for landscaping Both parameters are monthly monitored through site inspections made by Scatec Solar Africa (Pty) Ltd. The monitoring of both is included in the Environmental and Social monitoring Reports. Contract signed /25/ on 17/01/2017 between Scantec and API DEVELOPMENT Ltd. to maintain the Mangoo, Bamboo and vetivers plantations has been provided to the audit team. On the other hand, the invoices /26/ from Afritech Energy for cutting grass under the solar panels and general maintenance as drinking water and site office maintenance is also provided dated on December 2016 and January 2017. Therefore, it is considered that the monitoring of this parameter is made in accordance with provisions of the CPA Passposrt. On the other routine maintenance including vegetation management, cleaning of roads and water management during high rains is considered in the Compliance monitoring Reports 2014, 2015 and 2016.

<table>
<tr><th>Indicator</th><th>Score</th><th>Verification approach</th></tr>
<tr><td>GS-06 quality of employment</td><td>+</td><td>
In accordance with the Sustainability monitoring report, this indicator is measured through two parameters:

Parameter 1: Training records for employees during construction and operation period
Parameter 2: Feedback loop between the employee and the employer e.g. through suggestion box

Training of workers on the job will improve their skills and expertise and therefore improve the quality of the employment provided. Additional training of all workers before starting work on the site will demonstrate the health and safety of the workers was addressed as a way to provide conductive labour conditions onsite.
Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of both parameters.
Several Attendance sheets /27/ signed regarding first aid training has been provided in different months of the year. On the other hand, following documentation has been provided:

standard first aid certification of two people is provided /28/. The course was made by Red Cross Rwanda on 23.01.2017.
1st level solar maintenance certifications of four people /29/, all of them dated on 22/04/2016
SCADA systems operation certification /30/ obtained by Twaha Twagirimana on 10.09.2017.
meter calibration certifications /30/ of two people obtained on 11/10/2016.

On the other hand, during on site visit the grievance book /32/ was reviewed by the audit team, and no complaint was registered.
The results are:

Parameter 1: 61 employees have received training on HSE during the plant operation and 147 employees during the construction period. Specialized trainings were furthermore carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing.
Parameter 2: no complain has been registered in the grievance book as it was checked during on site visit.

</td></tr>
</table>

<table>
<tr><th>Indicator</th><th>Score</th><th>Verification approach</th></tr>
<tr><td>GS-07 - quantitative employment and income generation</td><td>+</td><td>In accordance with the Sustainability monitoring report, this indicator is measured through two parameters:
Parameter 1: Number of jobs created to Rwandans during construction period
Parameter 2: Number of jobs created to Rwandans during operation period
Scatec Solar Africa (Pty) Ltd is responsible for monitoring of both parameters in an annual basis through the Environmental and Social Monitoring Reports. The project participant has provided three documents, the attendance sheets signed by the employees of the company, the Afritech solar company invoice, contracted for the maintenance of the solar power plant, who contract local people for those tasks, and the Attendance sheets signed by the mangoos maintenance. The total number of workers is consistent with the numbers detailed in the final version of the Monitoring Report.
The results of the parameters are:
147 Rwandans were employed during construction period
Parameter 2:
2 employees full time for operational and maintenance
4 semi-permanent employees to support O&M staff
23 employees employed for mango trees, vetiver and grass plantation
17 employees employed for module washing
6 employees employed for grass cutting
9 security guards employed
The solar power plant was built at the Agahozo-Shalom Youth Village, a residential and educational community for youth orphaned during and after the genocide in 1994. The vast majority of the people who live in the communities around the project are working in the country field before the construction of the project, and less that 15% had access to electricity. Therefore, the income generation and increasement of the employement is guaranteed. Nevertheless, as request from GS the project proponent has provided with the salaries of the two staff people, which proofs that their salaries are much more higher than the average monthly salaries in the country.</td></tr>
</table>

Indicator	Score	Verification approach
GS-08 - human and institutional capacity	+	In accordance with the Sustainability monitoring report, this indicator is measured through three parameters: • Parameter 1: Number of trainings carried by the project implementer for employees of the power plant. • Parameter 2: Number of excursions to the power plant by various institutions will be recorded as part of training programmes. • Parameter 3: Number of students receiving solar technology /engineering training Scatec Solar Africa (Pty) Ltd is responsible for monitoring of the three parameters at least in an annual basis. One record regarding one excursion made by 56 students electrical Technology on 23/11/2016 is provided. Recorda regarding excursion made by students is provided to the audit team and, the final version of the Monitoring report is consistent with it. Thus, in accordance with Sustainability Monitoring Report, the results of this indicator are: • Parameter 1: Four different trainings were carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing system. 147 employees during construction and 61 employees during operation received HSE training. • Parameter 2: 56 individuals participated in excursions • Parameter 3: 500 students at the ASYV orphanage now have access to solar PV technology and engineering education.

Indicator	Score	Verification approach
GS-09 - technology transfer and technological self-reliance	+	In accordance with the Sustainability monitoring report, this indicator is measured through three parameters: • Parameter 1: Number of trainings carried out by the project implementer for employees of the power plant. • Parameter 2: Number of excursions to the power plant by various institutions will be recording as part of training programmes. • Parameter 3: Number of students receiving solar technology/ engineering training. Scatec Solar Africa (Pty) Ltd is responsible for monitoring of the three parameters at least in an annual basis. In accordance with Sustainability Monitoring Report, the results of this indicator is: • Parameter 1: Four different trainings were carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing system. 147 employees during construction and 61 employees during operation received HSE training. • Parameter 2: 56 individuals participated in excursions • Parameter 3: 500 students at the ASYV orphanage now have access to solar PV technology and engineering education.

Indicator	Score	Verification approach
GS-10 - access to affordable and clean energy services	+	In accordance with the Sustainability monitoring report, this indicator is measured through the parameter: • Parameter 1: amount of electricity generated from solar PV source. Scatec Solar Africa (Pty) Ltd is responsible for monitoring this parameter continuously, measured hourly and recorded at least monthly. In accordance with the CDM Monitoring Report, the quantity of electricity supplied to the grid is continuously monitored, measured hourly and recorded at least monthly. The auxiliary meter is read on a monthly basis by REG. The net electricity exported/supplied to the Rwandan grid is then calculated as the difference between the measured quantities of the grid electricity supplied to the grid and delivered from the grid to the project. The Metering Installation has been installed at the Interconnection Point, at a voltage of 15 kV, and has a main electronic meter that can be remotely interrogated, which has an electronic communication link and which is connected to the metering database of the Transmission Metering Administrator (TMA) or Distribution Metering Administration (DMA). The Metering Installation measures the amount and direction of Active Power/Energy and Reactive Power/Energy. The net electricity exported/supplied to the Rwandan grid is then calculated as the difference between the measured quantities of the grid electricity supplied to the grid and delivered from the grid to the project. Records from the main meter of the quantity of electricity supplied by the project plant/unit to the grid are crosschecked against billing records /33/ of electricity to the utility company (Rwanda Energy Group). These billing records, and the SCADA reports /34/ were verified during on site visit. As per the PPA /35/, main and back-up meter have to comply with an accuracy class foR 0.2S for active power and 0.5 for reactive power. Calibration Certificates were provided to the audit team, and it is confirmed that calibration of the meters is carried out in accordance with the PPA and relevant industry standards. In accordance with Sustainability Monitoring Report, the result of this indicator is 18,745 MWh, sufficient electricity for 15,000-18,000 households in Rwanda on an annual basis.

In AENOR's opinion, the sustainability monitoring system and all applied procedures are in compliance with the sustainability monitoring plan contained in the CPA-DD, Passport and the applied methodology.

3.7 Quality of Evidence to Determine Emission Reductions

The verification team confirmed that:

- The reported emission reductions were supported by sufficient evidence and records, with the adequate frequency and covering the full monitoring period, in accordance with the requirements established in the monitoring plan and the approved monitoring methodology.
- The source and nature of the evidence was adequate, verifiable and correctly defined or identified.

In the desk review and during the on-site visit, the audit team cross-checked all information provided in the monitoring report and in the calculation spreadsheets against data from other sources such as log book, meeting minutes, independent third party records, technical documents, purchase records, and other similar data sources, and found that the quality of evidence and the data collection system used to determine emission reductions of the project activity were in accordance with the monitoring plan of the CPA-DD and the applied methodology.

3.8 Management System and Quality Assurance

During the on-site visit, the audit team was able to verify that monitoring systems and all applied procedures are in compliance with the monitoring plan and the approved methodology. The different QA/QC procedures established in the monitoring plan are applied.

After the audit team reviewed the evidence of the fulfilment of data collection and processing, data quality control system and daily recording provided by the project participant, it found that the worksheet applied in the spreadsheet for emission reduction calculation was in accordance with the QA/QC procedure of the monitoring plan.

All roles and positions are well defined and implemented. Qualified personnel are involved in the monitoring procedures (monitoring plan, job descriptions, and organisation chart). Moreover, training for new personnel involved in the monitoring procedures was held. All above statements were verified during the on-site visit and document review.

3.9 Hints for next periodic Verification

No FAR has been raised during this verification.

4 CLARIFICATION, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUEST

CLs from the Verification process

CL ID	CL 1	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Annual Environmental and Social Monitoring Reports are required by the audit team.				
Project participant response				**Date:** 30/05/2017
Three reports (2014, 2015 and 2016) have been provided to the audit team. Routine maintenance including vegetation management, cleaning of roads and water management during high rains is undertaken by Scatec Solar. These activities require the procurement of local staff and products. Therefore, CL is clarified.				
Documentation provided by project participant				
ASYV PV Facility 2014 Compliance Report ASYV PV Facility 2015 Compliance Report ASYV PV Facility 2016 Compliance Report				
DOE assessment				**Date:** 30/05/2017
Three reports (2014, 2015 and 2016) have been provided to the audit team. Routine maintenance including vegetation management, cleaning of roads and water management during high rains is undertaken by Scatec Solar. These activities require the procurement of local staff and products. Therefore, **CL is clarified.**				

CL ID	CL 2	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Attendance sheets signed by the workers are required by the audit team.				
Project participant response				**Date:** 30/05/2017
Several attendance sheets signed by the workers are provided to the audit team.				
Documentation provided by project participant				
Attendance sheets				
DOE assessment				**Date:** 30/05/2017

A sample of training attendance sheets signed have been verified by the audit team:

- Risk assessment training, dated on 10/06/2014 (147 people)
- Site induction training, dated on 24/05/2014 (14 people)
- Mango trees maintenance, dated on 17/12/2015 (36 people)
- Personnel protective equipment dated on 29/08/2016 and 15/12/2016 (12 people).
- First aid, adverse weather safety, electrical safety, handling uses and storing flammable substances (10/01/2017)

Therefore, CL is clarified.

CL ID	CL 3	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Monthly records of solid waste management with external service shall be provided to the audit team.				
Project participant response				**Date:** 30/05/2017
The invoices from the waste management company have been provided.				
Documentation provided by project participant				
Invoices				
DOE assessment				**Date:** 30/05/2017
The invoices of the Company named *Waste collection for recycling*, contracted for the waste management (as it has been checked through the signed contract) is provided. The invoices are dated on 29/06/2014, 03/07/2014, 23/09/2015, 04/03/2016, 29/07/2016 and 15/12/2016. The company manages the wastes every time that the container is full, therefore, the whole monitoring period is covered.				

CL ID	CL 4	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Engagement of contractors for vegetation management shall be confirmed and documented evidence provided to the audit team in case a contract is signed.				
Project participant response				**Date:** 30/05/2017
Contracts signed with the two companies involved are provided.				
Documentation provided by project participant				
Contracts signed.				
DOE assessment				**Date:** 30/05/2017

Contract signed on 17/01/2017 between Scantec and API DEVELOPMENT Ltd. to maintain the Mangoo, Bamboo and vetivers plantations has been provided to the audit team. On the other hand, the invoices from Afritech Energy for cutting grass under the solar panels and general maintenance as drinking water and site office maintenance is also provided dated on December 2016 and January 2017. Therefore, it is considered that the monitoring of this parameter is correctly made. CL is clarified.

CL ID	CL 5	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Training records of workers and professional training certificates for workers are required by the audit team:				
Project participant response				**Date:** 30/05/2017
Training records are provided.				
Documentation provided by project participant				
Training records				
DOE assessment				**Date:** 30/05/2017
Several Attendance sheets signed regarding first aid training has been provided in different months of the year. On the other hand, following documentation has been provided: •standard first aid certification of two people is provided. The course was made by Red Cross Rwanda on 23.01.2017. •1st level solar maintenance certifications of four people, all of them dated on 22/04/2016 •SCADA systems operation certification obtained by Twaha Twagirimana on 10.09.2017. •meter calibration certifications of two people obtained on 11/10/2016. On the other hand, during on site visit the grievance book was reviewed by the audit team, and no complaint was registered. Therefore, CL is clarified.				

CL ID	CL 6	**Section no.**	2	**Date:** 25/05/2017
Description of CL				

Excursion record certificates and ASYV education records are required.	
Project participant response	**Date:** 30/05/2017
-	
Documentation provided by project participant	
Record of an excursion made in 2016.	
DOE assessment	**Date:** 30/05/2017
One record regarding one excursion made by 56 students electrical Technology on 23/11/2016 is provided. **Nevertheless, the number of students considered in the Monitoring Report is not consistent. This CL is not clarified until the MR is modified.**	
Project participant response 2	**Date:** 07/07/2017
GS Monitoring Report final version	
Documentation provided by project participant 2	
DOE assessment 2	**Date:** 07/07/2017
The Monitoring report has been modified and the number of people involved is consistent with documentation provided. CL is, therefore, clarified.	

CL ID	CL 7	**Section no.**	2	**Date:** 25/05/2017
Description of CL				
Energy reports with power generation data over a given number of months and invoices to the utility company indicating the amount of power sold to the utility company are required.				
Project participant response				**Date:** 30/05/2017
Billing records are provided.				
Documentation provided by project participant				
-				
DOE assessment				**Date:** 30/05/2017
Billing records for the whole monitoring period have been provided, and the SCADA readings have been checked on site. Two discrepancies have been detected regarding the months of January and February 2017 and it implies 246 MWh less than should be considered. The emission reduction calculation shall be reviewed. **CL is not clarified.**				
Project participant response 2				**Date:** 07/07/2017
2017 04 17 GWG MP1 ER Calculations v2.xls				
DOE assessment 2				

New version of the calculations has been provided and it is correct and consistent with the billing records and SCADA registers. Therefore, CAR is closed.

CARs from the Verification process

CAR ID	CAR 1	**Section no.**	1	**Date:** 25/05/2017
Description of CAR				
The entity responsible of the monitoring of the SD parameters is not consistent with that entity included in the CPA Passport. A clarification is required.				
Project participant response				**Date:** 07/07/2017
Gigawatt Global Cooperatief U.A. (GWG) is a multi-national developer of renewable energy projects with a focus in solar in sub-Saharan Africa. GWG's founders and staff have experience in all areas of solar energy project development in financing over 3 continents, with our Rwanda 8.5MW PV plant being the first utility scale project in East Africa. The Rwanda project was wholly and fully developed by GWG, with Scatec Solar having participated in the project financing and provided the EPC and O&M contractual services. GWG has maintained to itself the rights and responsibility for the GWG Rwanda 8.5MW PV project's carbon program, and has developed the program to the current step of 1st issuance. SCATEC is responsible for the monitoring of the SD parameters.				
Documentation provided by project participant				
DOE assessment				**Date:** 07/07/2017
Clarification is appropriate, therefore, CAR is closed.				

CAR ID	CAR 2	**Section no.**	1	**Date:** 30/05/2017
Description of CAR				
The number of employees is not consistent with documentation provided to the audit team.				
Project participant response				**Date:** 07/07/2017
Monitoring report has been revised				
Documentation provided by project participant				
Monitoring Report v02.				
DOE assessment				**Date:** 07/07/2017
Monitoring report has been revised and numbers are consistent with documentation provided. Therefore, CAR is closed.				

5 REFERENCES

No.	Author	Title	References to the document	Provider
1	CME	Registered PoA-DD	08/10/2015	UNFCCC
2	CME	Registered CPA 0001	08/10/2015	UNFCCC
3	CME	Revised CPA 0001	14/11/2017	CME
4	CME	PoA Passport		GS
5	CME	CPA Passport		GS
6	CME	Sustainability monitoring report		GS
7	CME	CDM Monitoring Report		CME
8	AENOR	Specific Instruction for Validation, Verification and Certification of Clean Development Mechanism (CDM) Project Activities (IE/DTC/039)	-	AENOR
9	GS	Gold Standard Energy Requirements version 2.2		GS
10	GS	GS Energy Toolkit version 2.2		GS
11	CDM-EB	CDM validation and verification standard for programme of activities, version 01.0 (EB93-A08-STAN)	03/03/2017	UNFCCC
12	AENOR	GS Verification Work Plan	16/05/2017	AENOR
13	CDM-EB	AMS-I.D Grid connected renewable electricity generation, version 18.	28/11/2014	UNFCCC
14	ERM	Validation report of the CDM-PoA - Gigawatt Global Programme of Activities, version 02.	13/10/2015	UNFCCC

15	ERM	Validation Report of the CDM Component Project Activity CPA ASYV 8.5MW Solar PV Project (CPA-001), version 02.	13/10/2015	UNFCCC
16	CME	Single Line Diagram	13/11/2014	CME
17	SCATEC	Calibration certificates of electricity main meter 1610/3P4W-CT-0/5261.2	01/10/2016	CME
18	EUCL	Calibration certificates of electricity back up meter RSB/NMD/04/01/37/046	12/07/2016	CME
19	CME	Notification from the UNFCCC of the approval of the change of starting date of crediting period	04/05/2017	CME
20	CME	ASYV PV Facility 2014 Compliance Report	2014	CME
21	CME	ASYV PV Facility 2015 Compliance Report	2015	CME
22	CME	ASYV PV Facility 2016 Compliance Report	2016	CME
23	SCATEC	Training attendance sheets	2016-2017	CME
24	WASTE COLLECTION FOR RECYCLING	Invoices Waste Management activities	2014-2016	CME
25	SCATEC	Contract signed between Scatec and API DEVELOPMENT Ltd. to maintain the Mangoo, Bamboo and vetivers plantations	17/01/2017	CME
26	Afritech Energy	Invoices for cutting grass and general maintenance as drinking water and site office maintenance.	Dec 2016 - Jan 2017	CME
27	SCATEC	Attendance sheets signed	2017	CME

		regarding first aid training		
28	RED CROSS RWANDA	Standard first aid certification	23/01/2017	CME
29	SCATEC	1st level solar maintenance certifications	22/04/2016	CME
30	SCATEC/EUCL	SCADA systems operation certification obtained by Twaha Twagirimana	10/09/2017	CME
31	SCATEC/REA	Meter calibration certifications	11/10/2016	CME
32	SCATEC	Grievance book	2015-2017	SCATEC
33	SCATEC	Billing records and invoices	2015 - 2017	CME
34	EUCL	SCADA reports	2015-2017	CME
35	CME	Power Purchase Agreement	2013	CME

ANNEX 1. GOLD STANDARD VERIFICATION PROTOCOL

Checklist Question	Comments	Draft conclusion	Final conclusion
1. Sustainability verification			
Is the sustainability monitoring report (and other supporting documents) provided complete in accordance with latest applicable version of the Issuance information and reporting checklist?	**CAR 1 – The entity responsible of the monitoring of the SD parameters is not consistent with that entity included in the CPA Passport. A clarification is required.** The sustainability monitoring report has been accordingly modified, CAR is closed.	**CAR 1**	**OK**
Is the Sustainability monitoring report free of misstatements and is it transparent, clear and unequivocal?	The Sustainability monitoring report is free of misstatements and it transparent, clear and unequivocal.	OK	**OK**
2. Remaining forward action requests from validation and/or previous verification			
Check (in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR) Have they been addressed appropriately?	No open issues from validation are detected.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Check (in case of further periodic verifications) whether there are any open issues indicated in previous verification (FAR) Have they been addressed appropriately?	Not applicable since this is the first verification.	OK	**OK**
Check if there has been any request for deviations from the monitoring methodology or any Post Registration Change. If any, make sure that they are considered during verification	No deviations or Post Registration Change have been detected.	OK	**OK**
3. Compliance of sustainability monitoring activities with the registered sustainability monitoring plan			
Is the monitoring process implemented in accordance with the sustainability monitoring plan contained in the CPA Passport?	The audit team confirms that sustainability monitoring activities are implemented in accordance with the monitoring plan contained in the CPA Passport. In order to enable verification of emission reductions and sustainable development impacts each CPA must maintain credible, transparent and adequate data measurement, collection, estimation and tracking systems. Each CPA implementing entity under the PoA is responsible for the technical aspects related to onsite monitoring such as: • Employment and training of personnel responsible for gathering and recording monitoring data on emission reductions and sustainable development indicators • Appropriate storage of data	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
	• Submission of monitoring data to the CME		
Have the monitoring plan been properly implemented and followed by the project participants?	The CPA implementing entity for the CPA 0001 has appointed a monitoring officer who will be in charge of the CPA's monitoring responsibilities as described above.	OK	**OK**
Have all parameters stated in the sustainability monitoring plan, the applied methodology and relevant GS decisions been sufficiently monitored and updated as applicable	Please, refer to section 3.2 Monitoring Parameters.	OK	**OK**
Are the responsibilities and authorities for monitoring of sustainability parameters in accordance with the responsibilities and authorities stated in the sustainability monitoring plan of the CPA Passport?	Yes, responsibilities and authorities for monitoring of sustainability parameters are detailed and in accordance with the responsibilities and authorities stated in the sustainability monitoring plan of the CPA Passport.	**CAR 1**	**OK**
3.2. Data and parameters monitored *(List all indicators and their related parameters to be monitored according to CPA Passport; pl. copy the lines below for each parameter)*			
INDICATOR: AIR QUALITY	***Description of the mitigation measure:*** *Use of water sprinklers along the roads where there is machinery movement and landscaping the cleared unused area.*		
Chosen Parameters			

Checklist Question	Comments	Draft conclusion	Final conclusion
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.*	In accordance with the Sustainability monitoring report, this indicator is measured through two monitoring parameters: • Parameter 1: Daily site observation to determine frequency of water sprinklers used during the construction phase. This parameter shall be monitored in a daily frequency. • Parameter 2: Vegetation coverage within the project site, measured in a monthly basis. Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of both parameters as part of the EIA compliance requirements reported. Nevertheless, no documented evidence has been provided. **CL 1 - Annual Environmental and Social Monitoring Reports are required by the audit team.** Three reports, one per year, has been provided to the audit team. Routine maintenance including vegetation management, cleaning of roads and water management during high rains is undertaken by Scatec Solar. These activities require the procurement of local staff and products. Therefore, **CL is clarified**.	**CL 1**	**OK**
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration*	Not applicable since the monitoring is made through visual inspections.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?			
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since the monitoring is made through visual inspections.	**CL 1**	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	The results are: • Parameter 1: There is no dust caused by any construction activity • Parameter 2: Natural vegetation is kept on the entire site. bamboo and vetifer grass (*Chrysopogon zizanioides*) planted on the site substantial spaces, grass and weaker vegetation is subject to trimming (brush cutting or using hand slathers) to be left in situ on site to allow seeding and not subject to collection, vegetation is kept at acceptable height (however not less than 10cm from the ground). Larger woody shrubs are pruned or removed and collected	**CL 1**	**OK**
Quality assurance and quality control	Quality control procedures have been applied in accordance with the monitoring plan.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*			
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring*	The score of the indicator is 0 in accordance with the Sustainability Monitoring Report since there is no dust caused by any construction activity. And on the other hand natural vegetation is kept on the entire site. Bamboo and Vetifer grass (C*hrysopogon zizanioides*) planted on the site substantial spaces, grass and weaker vegetation is subject to trimming (brush cutting or using hand slathers) to be left in situ on site to allow seeding and not subject to collection, vegetation is kept at acceptable height (however not less than 10 cm from the ground). Larger woody shrubs are pruned or removed and collected. During on site visit the bamboo and vetifier plantation have been verified.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
period.			
INDICATOR: SOIL CONDITION	***Description of the mitigation measure:*** *Implementation of drainage system*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied*	In accordance with the Sustainability monitoring report, this indicator is measured through the monitoring of signs of water eroded landscapes and soil accumulation or deposits on the project site. This parameter is measured through site inspection of eroded landscapes and soil accumulation of deposit in a weekly basis during construction, and at least monthly during operation. Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of this parameter. The Compliance annual reports for 2014, 2015 and 2016 have been provided, and also during on site visit the drainage system could be verified. On the other hand, the vetiver and bamboo grass attenuate water flow over open surfaces and hence no significant soil erosion nor flooding has been incurred on or off site during the reporting period.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
methodology.			
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	Not applicable since the monitoring is made through site visual inspections.	**CL 1**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since the monitoring is made through visual inspections.	**CL 1**	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	No signs of water eroded landscapes and soil accumulation or deposits on the project site as a result of implementation of mitigation measures, as it could be checked during on site visit.	**CL 1**	**OK**
Quality assurance and	Quality control procedures have been applied in accordance with the monitoring plan.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*			
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences*	The score of the indicator is 0 in accordance with the Sustainability Monitoring Report. An appropriate drainage system has been installed and the project site has been well landscaped during the monitoring period and no signs of soil erosion appeared. Evidence is provided in annual Environmental and Social Monitoring Reports.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
covering the full monitoring period.			
INDICATOR: NOISE POLLUTION	***Description of the mitigation measure:*** *Providing protective gear to employees working near machines emitting more than 70db.*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA*	In accordance with the Sustainability monitoring report, this indicator is measured through the monitoring of the number of protective gear used by employees working near machines emitting more than 70db. Regular monitoring of use of protective gear took place through site inspection during the construction period in a weekly basis. No monitoring takes place during operational phase as no heavy machinery is used during the operation of the plant. The responsible entity to monitor this parameter during construction phase was Scatec Solar Africa (Pty) Ltd through the site induction manual and training attendance sheet signed by the workers. **CL 2 – Training attendance sheets signed by the workers are required by the audit team.** A sample of training attendance sheets signed have been verified by the audit team regarding different training process related to the noise pollution, like risk assessment training, site induction training, Personnel protective equipment and electrical safety. Therefore, CL is clarified and it is considered that the monitoring of the parameter is appropriate.	**CL 2**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
PASSPORT and the applied methodology.			
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	Not applicable since the monitoring is made through the signed attendance sheets.	**CL 2**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since no equipment is involved in the monitoring.	OK	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	No monitoring takes place during operational phase as no heavy machinery is used during the operation of the plant.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by*	The score of the indicator is 0 in accordance with the Sustainability Monitoring Report.	**CL 2**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
corresponding evidences covering the full monitoring period.			
INDICATOR: SOLID WASTE POLLUTION	***Description of the mitigation measure:*** *Safe solid waste disposal.*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered*	In accordance with the Sustainability monitoring report, the management of solid waste pollution is controlled by putting in place measures that reduce, re-use, recycle and safely dispose of any waste matter that cannot be reused. This is monitored by assessing the records of solid waste disposal in a monthly basis. Scatec Solar Africa (Pty) Ltd is responsible to monitor it. No evidence has been provided. This section will be reassessed once CL 1 is clarified since the monitoring of this indicator is also documented in the Environmental and Social monitoring reports. **CL 3 - Monthly records of solid waste management with external service shall be provided to the audit team.** The invoices of the Company named *Waste collection for recycling*, contracted for the waste management (as it has been checked through the signed contract) is provided. The invoices are dated on 29/06/2014, 03/07/2014, 23/09/2015, 04/03/2016, 29/07/2016 and 15/12/2016. The company manages the wastes every time that the container is full, and the monitoring of this parameter is detailed also in the Compliance annual reports for 2014, 2015 and 2016 provided.	**CL 3**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
monitoring plan of the CPA PASSPORT and the applied methodology.			
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	No monitoring equipment seems to be involved in the monitoring of this parameter.	**CL 1** **CL 3**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since no monitoring equipment is involved in this parameter.	**CL 1** **CL 3**	**OK**
Monitoring results *Are monitoring results consistently recorded as*	The result of the monitoring is absence of Noise in accordance with the Sustainability monitoring report.	**CL 1** **CL 3**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
per approved frequency?			
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be*	The score of the indicator is 0 in accordance with the Sustainability Monitoring Report. Nevertheless, no evidence has been provided.	**CL 1** **CL 3**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
backed up by corresponding evidences covering the full monitoring period.			
INDICATOR: BIODIVERSITY	***Description of the mitigation measure:*** *Relocation of protected plant species found on the site during the clearing of the land for construction.*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in*	In accordance with the Sustainability monitoring report, this indicator is measured through two parameters: • Parameter 1: Number of *Erythrina abyssinica* trees relocated (locally name as "umuko". • Parameter 2: Vegetation cover on areas that were previously identified for landscaping Both parameters will be monitored inspected monthly site inspections made by Scatec Solar Africa (Pty) Ltd. The monitoring of both is included in the Environmental and Social monitoring Report. **CL 4 - Engagement of contractors for vegetation management shall be confirmed and documented evidence provided to the audit team in case a contract is signed.** Contract signed on 17/01/2017 between Scatec and API DEVELOPMENT Ltd. to maintain the Mangoo, Bamboo and vetivers plantations has been provided to the audit team. On the other hand, the invoices from Afritech Energy for cutting grass under the solar panels and general maintenance as drinking water and site office maintenance is also provided dated on December 2016 and January 2017. Therefore, it is considered that the monitoring of this parameter is correctly made. On the other	**CL 1** **Cl 4**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.	routine maintenance including vegetation management, cleaning of roads and water management during high rains is considered in the Compliance monitoring Report 2014, 2015 and 2016. The location of the umuko tree was verified during on site visit, and also the plantation of mango, bamboo and vetivier.		
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	No monitoring equipment seems to be involved in the monitoring of this parameter.	**CL 1** **CL 4**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	No applicable since no monitoring equipment is involved.	**CL 1** **CL 4**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	A single *Erythrina abyssinica* tree species was found onsite and recommendations were proposed to relocate the tree species if necessary. Relocations and survival of the tree species shortly after the construction period will demonstrate that interference with protected species onsite was kept minimal.	**CL 1** **CL 4**	**OK**
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the*	The score of the indicator is + in accordance with the Sustainability Monitoring Report.	**CL 1** **CL 4**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring period.			
INDICATOR: QUALITY OF EMPLOYMENT	***Description of the mitigation measure:*** *not applicable*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method*	In accordance with the Sustainability monitoring report, this indicator is measured through two parameters: • Parameter 1: Training records for employees during construction and operation period • Parameter 2: Feedback loop between the employee and the employer e.g. through suggestion box Training of workers on the job will improve their skills and expertise and therefore improve the quality of the employment provided. Additional training of all workers before starting work on the site will demonstrate the health and safety of the workers was addressed as a way to provide conductive labour conditions onsite. Scatec Solar Africa (Pty) Ltd is responsible for the monitoring of both parameters. Documented evidence is required. **CL 5 - Training records of workers and professional training certificates for workers are required by the audit team:** • **standard first aid certification** • **1st level solar maintenance certification**	**CL 1** **CL 5**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
(data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.	• **SCADA systems operation certification** • **meter calibration certification** **On the other hand, annual compilation of complaints filed is also required.** Several Attendance sheets signed regarding first aid training has been provided in different months of the year. On the other hand, following documentation has been provided: •standard first aid certification of two people is provided. The course was made by Red Cross Rwanda on 23.01.2017. •1st level solar maintenance certifications of four people, all of them dated on 22/04/2016 •SCADA systems operation certification obtained by Twaha Twagirimana on 10.09.2017. •meter calibration certifications of two people obtained on 11/10/2016. On the other hand, during on site visit the grievance book was reviewed by the audit team, and no complaint was registered. Therefore, CL is clarified.		
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the*	No monitoring equipment seems to be involved in the monitoring of this parameter.	**CL 1** **CL 5**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
monitoring plan?			
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since no monitoring is involved in these parameters	**CL 1** **CL 5**	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	Parameter 1: 61 employees have received training on HSE during the plant operation and 147 employees during the construction period. Specialized trainings were furthermore carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing	**CL 1** **CL 5**	**OK**
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring period.*	The score of the indicator is + in accordance with the Sustainability Monitoring Report.	**CL 1** **CL 5**	**OK**
INDICATOR: QUANTITATIVE EMPLOYMENT AND INCOME GENERATION	***Description of the mitigation measure:*** *not applicable*		
Chosen Parameters			
Measurement/Determination method	In accordance with the Sustainability monitoring report, this indicator is measured through two parameters:	**CL 1** **CAR 2**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Describe how the monitoring parameter was measured / determined. *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.*	• Parameter 1: Number of jobs created to Rwandans during construction period • Parameter 2: Number of jobs created to Rwandans during operation period Scatec Solar Africa (Pty) Ltd is responsible for monitoring of both parameters in an annual basis through the Environmental and Social Monitoring Reports. Environmental and Social Monitoring Reports have been provided, nevertheless, the real number of employees is not detailed. The project participant has provided three documents, the attendance sheets signed by the employees of the company, the Afritech solar company invoice, contracted for the maintenance of the solar power plant, who contract local people for those tasks, and the Attendance sheets signed by the mangoos maintenance. The total number of workers is not consistent with the numbers detailed in the Monitoring Report. **CAR 2 – The number of employees is not consistent with documentation provided to the audit team.** Sustainability monitoring report has been modified to be consistent with the supported document. The mistakes have been solved, and therefore, CAR is solved.		
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the*	No monitoring equipment seems to be involved in the monitoring of this parameter.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?			
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable since no monitoring equipment is involved.	**CAR 2**	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	Parameter 1: • 147 Rwandans were employed during construction period Parameter 2: • 2 employees full time for operational and maintenance • 4 semi-permanent employees to support O&M staff • 23 employees employed for mango trees, vetiver and grass plantation • 17 employees employed for module washing • 6 employees employed for grass cutting • 9 security guards employed Nevertheless, this section will be assessed once **CAR 2 is solved**	**CAR 2**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by*	The score of the indicator is + in accordance with the Sustainability Monitoring Report. Nevertheless, no evidence has been provided.	**CL 1**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
corresponding evidences covering the full monitoring period.			
INDICATOR: HUMAN AND INSTITUTIONAL CAPACITY	***Description of the mitigation measure:*** *not applicable*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered*	In accordance with the Sustainability monitoring report, this indicator is measured through three parameters: • Parameter 1: Number of trainings carried by the project implementer for employees of the power plant. • Parameter 2: Number of excursions to the power plant by various institutions will be recorded as part of training programmes. • Parameter 3: Number of students receiving solar technology /engineering training Scatec Solar Africa (Pty) Ltd is responsible for monitoring of the three parameters at least in an annual basis. No documented evidence has been provided. Pending also on resolution of CL 5. **CL 6 - Excursion record certificates and ASYV education records are required.** One record regarding one excursion made by 56 students electrical Technology on 23/11/2016 is provided and monitoring report accordingly modified.	**CL 5** **CL 6**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
monitoring plan of the CPA PASSPORT and the applied methodology.			
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	No monitoring equipment is involved in the monitoring of these parameters.	**CL 5** **CL 6**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable.	**CL 5** **CL 6**	**OK**
Monitoring results *Are monitoring results consistently recorded as*	In accordance with Sustainability Monitoring Report, the results of this indicator is: • Parameter 1: Four different trainings were carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance	**CL 5** **CL 6**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
per approved frequency?	certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing system. 147 employees during construction and 61 employees during operation received HSE training. • Parameter 2: 56 individuals participated in excursions • Parameter 3: 500 students at the ASYV orphanage now have access to solar PV technology and engineering education.		
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,*	The score of the indicator is + in accordance with the Sustainability Monitoring Report.	**CL 5** **CL 6**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring period.			
INDICATOR: TECHNOLOGY TRANSFER AND TECHNOLOGICAL SELF-RELIANCE	***Description of the mitigation measure:*** *not applicable*		
Chosen Parameters			
Measurement/Determination method *Describe how the monitoring parameter was measured / determined.* *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods*	In accordance with the Sustainability monitoring report, this indicator is measured through three parameters: • Parameter 1: Number of trainings carried out by the project implementer for employees of the power plant. • Parameter 2: Number of excursions to the power plant by various institutions will be recording as part of training programmes. • Parameter 3: Number of students receiving solar technology/ engineering training. Scatec Solar Africa (Pty) Ltd is responsible for monitoring of the three parameters at least in an annual basis. Documentation is provided and Sustainability monitoring report is consistent.	**CL 5** **CL 6**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
have been used. *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.*			
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?*	No monitoring equipment is involved in the monitoring of these parameters.	**CL 5** **CL 6**	**OK**
Accuracy *In case of measured (or estimated) values, check whether significant*	Not applicable.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.			
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	In accordance with Sustainability Monitoring Report, the results of this indicator is: • Parameter 1: Four different trainings were carried out where 2 employees received standard first aid certification, 4 received 1st level solar maintenance certification, 1 received SCADA systems operation certification and 2 received meter calibration certification using the Kocos Metes 320 testing system. 171 employees during construction and 35 employees during operation received HSE training. • Parameter 2: 76 individuals participated in excursions • Parameter 3: 500 students at the ASYV orphanage now have access to solar PV technology and engineering education. Nevertheless, this section will be assessed once **CL 5 and CL 6** are **clarified**.	**CL 5** **CL 6**	**OK**
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or omissions in the reported monitoring parameters?*	Not applicable.	OK	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring period.*	The score of the indicator is + in accordance with the Sustainability Monitoring Report.	**CL 5** **CL 6**	**OK**
INDICATOR: ACCESS TO AFFORDABLE AND CLEAN ENERGY SERVICES	***Description of the mitigation measure:*** *not applicable*		
Chosen Parameters			
Measurement/Determination method *Describe how the*	In accordance with the Sustainability monitoring report, this indicator is measured through the parameter: • Parameter 1: amount of electricity generated from solar PV source.	**CL 7**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
monitoring parameter was measured / determined. *Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used.* *Assess whether the measurement or determination method (data generation, frequency, aggregation, equipment, recording, reporting, standards) is in line with the registered monitoring plan of the CPA PASSPORT and the applied methodology.*	Scatec Solar Africa (Pty) Ltd is responsible for monitoring this parameter continuously, measured hourly and recorded at least monthly. No documented evidence has been provided. **CL 7 - Energy reports with power generation data over a given number of months. Invoices to the utility company indicating the amount of power sold to the utility company are required.** Documentation has been provided, and it is consistent with final version of Monitoring report. CL is clarified.		
Monitoring Equipment *Is the equipment of used for monitoring (quality, type, accuracy, calibration requirements) in accordance with the relevant guidance provided*	No monitoring equipment is involved in the monitoring of these parameters.	**CL 7**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
by the CDM Executive Board and is equipment controlled and calibrated in accordance with the monitoring plan?			
Accuracy *In case of measured (or estimated) values, check whether significant inaccuracies occur; in this case, make sure that appropriate discounts have been considered for ER calculation.*	Not applicable.	OK	**OK**
Monitoring results *Are monitoring results consistently recorded as per approved frequency?*	In accordance with Sustainability Monitoring Report, the result of this indicator is 18,745 MWh, sufficient electricity for 15,000-18,000 households in Rwanda on an annual basis.	**CL 7**	**OK**
Quality assurance and quality control procedures *Have quality assurance and quality control procedures been applied in accordance with the monitoring plan to prevent or identify and correct any errors or*	Not applicable.	**CL 7**	**OK**

Checklist Question	Comments	Draft conclusion	Final conclusion
omissions in the reported monitoring parameters?			
Verification *Describe how the value and the information flow (from data generation, aggregation, to recording, calculation and reporting) were verified. Consider the measurement / determination procedure, accuracies,* *QA/QC procedure, source and nature of the evidences. Consider as well plausibility checks as far as possible. Check if the applied value could be backed up by corresponding evidences covering the full monitoring period.*	The score of the indicator is + in accordance with the Sustainability Monitoring Report. Nevertheless, no evidence has been provided.	**CL 7**	**OK**