

PoA Title	Gigawatt Global Programme of Activities
Real Case CPA Title(s)	ASYV 8.5MW Solar PV Project (CPA-001)
ERM CVS Project Reference	2673.V1
<u>PoA GS ID</u>	<u>GS 3587</u>
<u>CPA GS ID</u>	<u>GS 3606</u>
Client Name	Gigawatt Global Cooperatief U.A.
Client Address	Rietland Park 125 Amsterdam 1019 DT The Netherlands

Gold Standard Sustainability Validation Report

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Version Control	Date
Version 1.0	9 March 2016 (Draft report)
Version 2.0	13 June 2016 (Final report)
<u>Version 2.1</u>	<u>20 October 2016 (updated following Gold Standard review)</u>

Table of Contents

1	Project Information.....	3
1.1	Key project information	4
1.2	Summary and Validation Opinion	5
2	Introduction.....	7
2.1	Validation Objectives	7
2.2	Scope	7
2.3	Contract Review	7
2.4	Validation Personnel.....	7
2.5	Summary of CVs of the validation personnel	8
3	Validation Approach.....	9
3.1	Upload of the work-plan on the Gold Standard registry	9
3.2	Document Review.....	9
3.3	Site visit and Interviews	9
3.4	Preparation of Draft Validation Report.....	9
3.4.1	Remediation requests	10
3.5	Final Validation Report and Validation Opinion.....	10
3.6	Internal Quality Control	10
4	Validation findings – Gold Standard Criteria	11
4.1	Project eligibility	11
4.2	Deviations on GHG emission reduction estimation.....	12 ¹¹
4.3	Gold Standard criteria on additionality	12
4.4	Sustainability assessment	13
4.5	Gold Standard Criteria for Stakeholder Consultation	18 ¹⁷
4.6	Pre-feasibility assessment	20 ¹⁹
4.7	Sustainability monitoring plan	20 ¹⁹
Appendix A: Documents and Interviewees.....		26²⁴
4.8	A.1 DOCUMENT LIST	26 ²⁴
4.9	A.2 INTERVIEWS	27 ²⁴
Appendix B: Remediation Form		29²⁶

Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CH ₄	Methane
CL	Clarification request
CME	Coordinating / Managing Entity
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
COP	Conference of the Parties
CPA-DD	Component Project Activity Design Document
DNA	Designated National Authority
DNHA	Do No Harm Assessment
FAR	Forward Action Request
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
FSR	Feasibility Study Report
GHG	Greenhouse Gas
GS	Gold Standard
GSP	Global Stakeholder Process
GWP	Global Warming Potential
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
LSC	Local Stakeholder Consultation
LoA	Letter of approval
MOP	Meeting of the Parties
MP	Monitoring Plan
MW/MWh	Mega Watt/Mega Watt hour
NCV	Net Calorific Value
NGO	Non-Governmental Organisation
ODA	Official Development Assistance
OM	Operating Margin
PoA	Programme of Activities
PoA-DD	Programme of Activities Design Document
PPA	Power Purchase Agreement
SCE	Standard coal equivalent
TAC	(GS) Technical Advisory Committee
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value-added tax
VVS	CDM Validation and Verification Standard

Project/Party specific abbreviations

REMA	Rwanda Environment Management Authority
RDB	Rwanda Development Board

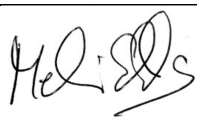
1 Project Information

1.1 Key project information

PoA Title	Gigawatt Global Programme of Activities
Title of CPA(s)	ASYV 8.5MW Solar PV Project (CPA-001)
PoA Location(s)	The Republic of Rwanda
Host Party	The Republic of Rwanda
Other Party(ies)	None
CME	Gigawatt Global Cooperatief U.A.
Other Project participants	Not applicable
Methodology	ACM0002 Large-scale Consolidated Methodology Grid-connected electricity generation from renewable sources (Version 16) and AMS-1.D Grid connected renewable electricity generation (Version 18)

Dates of CDM GSP	22 October 2014 to 20 November 2014
Dates of GS LSC	10 February 2014
Date(s) of validation site visit	10-14 November 2014
Date and version number of the CPA Passport used as the basis for the final validation report	16 May <u>14 October</u> 2016, version 0 <u>65</u>

1.2 Summary and Validation Opinion

PoA Title	Gigawatt Global Programme of Activities
Name of Client	Gigawatt Global Cooperatief U.A.
Basis of validation	ERM CVS based its validation work on: • GS Rules v.2.2 • GS Toolkit v.2.2 and its annexes Validation was also based on CDM requirements. CDM validation is reported in a separate CDM validation report.
Responsibilities of ERM CVS	ERM CVS is responsible to provide a thorough independent evaluation of the proposed Programme of Activities (PoA) that it fulfils Gold Standard validation requirements.
Responsibilities of Project participants	The Project Participants are responsible for preparing the CDM and GS documentation and providing all necessary evidences to support the information included in the PoA-DD and PoA GS Passport, CPA-DD and CPA Passport.
Activities performed	This validation report covers the Gold Standard aspects (including sustainable development and local stakeholder consultation) of the PoA and the first real case CPA. This report is therefore a combined report for the programme and its first component project activity. CDM requirements are contained in a separate report. ERM CVS conducted its activities in accordance with the Gold Standard requirements. The validation consisted of a review of project documentation, a site visit, interviews with relevant personnel, cross checking information through other reliable sources and reporting. Validation work was based on a validation protocol that sets out relevant GS requirements. Where necessary, Clarification Requests and Corrective Action Requests were raised and closed out with the Project participants. The validation work was subject to detailed Technical Review and assessment prior to submission.
ERM CVS Conclusion	ERM Certification and Verification Services (ERM CVS) has performed the validation of the programme of activities and its first CPA against the Gold Standard criteria as set out in the GS Rules and GS Toolkit. The validation employed standard auditing techniques, and used requirements of the CDM Validation and Verification Standard. The validation has provided sufficient evidence to demonstrate that the design of the proposed Programme of Activities and CPA-1 as documented in The Project Design Documents, Gold Standard Passports and Local Stakeholder Consultation Report, is sound and reasonable and meets the relevant criteria. The Project Participants have demonstrated that the PoA and CPA-1 will have clear sustainable development benefits. The sustainability monitoring plan has been developed to monitor the impact of project activities on sustainable development and verify if the PoA and its component CPAs indeed contributes to sustainable development and/or prevents severe negative environmental, social and/or economic impacts. ERM CVS therefore requests the GS approves registration of the PoA and CPA-1.
Signed on behalf of ERM CVS	
Name:	Melanie Eddis

Date:	13 June 2016 14 October 2016
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2 Introduction

2.1 Validation Objectives

The objectives of this validation are to check compliance of the project/programme against the relevant requirements of the Gold Standard version 2.2. These requirements focus on the sustainability and local stakeholder engagement aspects of the project/programme. Compliance with CDM related criteria are contained in a separate report.

2.1.1.1 Validation Criteria

ERM CVS applies the following principles in performing its validation:

- Consistency
- Transparency
- Impartiality, independence and safeguarding against conflicts of interest
- Confidentiality

In all aspects of its work, ERM CVS ensures that the information and data reported are accurate, conservative, relevant, credible, reliable and complete.

2.2 Scope

The validation scope addresses the project activity as described in the Gold Standard passport and associated documentation such as the local stakeholder consultation report and sustainable development matrix. The passport and associated documentation are reviewed against the criteria and requirements stated in the Gold Standard Rules v.2.2 and the Gold Standard Toolkit v.2.2.

2.3 Contract Review

Prior to contracting with the client, a full review of the project and the validation requirements was made. This addressed both commercial risk and project risks associated with conducting the validation activities and confirmed the availability of an appropriately qualified team to conduct the validation.

2.4 Validation Personnel

Based on ERM CVS's review of the project, a validation team was established that takes into account the coverage of the technical area(s), sectoral scope(s) and relevant host country experience.

Personnel who were involved in the validation of this project activity were:

Validation Team

Name	Role	GS Requirements	Technical area	Participated in site visit?
Jonathan Avis	Lead validator	Yes	Fully competent	Yes
Sushmita Seelam	Validator	Yes	Partially competent	Yes

DOE Head Office

Name	Role	GS Requirements	Knowledge relevant to the technical area
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Name	Role	GS Requirements	Knowledge relevant to the technical area
Neringa Pumputyte	Technical Reviewer	Yes	Yes

2.5 Summary of CVs of the validation personnel

Jonathan Avis is CDM Business Manager for ERM CVS, and a GHG Assessor and Technical Reviewer with over ten years' experience in the CDM and Gold Standard. Since joining ERM CVS Jonathan has worked as a Technical Reviewer or GHG Assessor on more than 30 CDM validations in Renewable Energy (scope 1), more than 10 CDM validations in Manufacturing Industries (scope 04), 6 CDM validations in Mining (scope 8), and 5 CDM validations in Waste Handling and Disposal (scope 13). Jonathan's previous work experience involved screening and due diligence of carbon projects, Project Design Document (PDD) development, quality assurance and technical review of CDM project documentation, the development of carbon monitoring plans, and management of carbon projects through the validation, registration and verification stages. Jonathan has completed the ERM CVS CDM training as well as the GHGMI Renewable Energy training and Gold Standard training. Jonathan holds a BA in Geography and an MSc in Environmental Change and Management from the University of Oxford.

Sushmita Seelam is an Assessor and a Client Account Manager (CAM) based in London and has been with ERM CVS since July 2012. Prior to ERM CVS, Sushmita had been working in the sustainability consulting service industry for three years. As a CDM consultant, she has been involved in the development of over 25 CDM and VCS projects in various sectors. Her work also involves research and experience in supply chain evaluation, resource footprinting and life cycle assessment of commodities, with a focus on water and GHG footprinting for sectors such as global energy (especially oil & gas), agricultural commodities etc. Sushmita holds a B.E. in Environmental Engineering and an MSc in Environment and Sustainable Development. She has also completed the ERM CVS CDM validation and verification training and the CDM Gold Standard training.

Neringa Pumputyte has been working with CDM and Gold Standard for the past 7 years, initially as a consultant and project developer and now as a validator and verifier. Neringa has carried out 15 validations and verifications for CDM and Gold Standard as an assessor in the sectors of renewable energy, energy efficiency, LFG, and fugitive emissions (oil and gas). Before joining ERM CVS, Neringa worked on hydro and cook stove projects as well as numerous waste handling projects as a CDM project developer. Neringa has completed the ERM CVS CDM training, as well as gold standard methodology training. Neringa also has a BSc and MSc in Geography, and an MSc in Environmental Change and Management from the University of Oxford.

3 Validation Approach

In carrying out its validation work, ERM CVS has:

- (a) Determined whether the proposed project activity complies with the sustainability requirements of the Gold Standard;
- (b) Assessed the claims and assumptions made in the GS Passport, and supporting documentation including the Local Stakeholder Consultation Report. The evidence used in this assessment has not been limited to that provided by the project participants.

The validation process employed standard auditing techniques and undertook necessary cross-checks and follow-up actions to ascertain the correctness of the information. The validation team included staff with experience in the relevant technology. The validation report and associated documents have undergone a thorough technical review by ERM CVS before being submitted to the Gold Standard. The validation of Gold Standard requirements consisted of the following key stages:

3.1 Upload of the work-plan on the Gold Standard registry

The work-plan was submitted to the Gold Standard in advance of the site visit. No comments were raised by the Gold Standard.

3.2 Document Review

A detailed document review of the GS passports, LSC report, POA design consultation report, and all other associated documentation and references took place in advance of the site visit, and additional documents that were not available for the desk review were requested for review during the site visit. The document review includes:

- A review of data and information to verify the correctness, credibility and interpretation of presented information;
- Cross checks between information provided in the GS documentation and information from other sources, not limited to those provided by the PPs, applying ERM CVS's sectoral or local expertise and, if necessary, with independent background investigations
- Reference to available information relating to projects or technologies similar to the proposed project activity
- Review, based on the approved methodology being applied, of the appropriateness of formulae and accuracy of calculations

Where the review of the documentation raised issues, these were further reviewed and validated through supporting documentation and cross-checking from other sources and interviewing relevant personnel involved in the project activity during the site visit. During the document review the project team also compared the proposed project activity with available information relating to projects or technologies similar to the proposed GS activity under validation. A list of all documents reviewed or referred to in the course of this validation is included in Appendix A.

3.3 Site visit and Interviews

The site visit [took place on 10-14 November 2014 and](#) included a visit to Rwanda including the site of CPA-1, as well as discussions with the CME and the CPA 1 implementing partner, and review of documentation. Site visits and interviews provide additional and background to the project as well as cross checks with project documentation. Interviews were undertaken with relevant stakeholders in the host country, as well as personnel with knowledge of the project design and implementation. A list of interviewees, and the main topics discussed with each person can be found in appendix A. [The site visit covered both CDM elements, and Gold Standard issues for example review of GS sustainable development parameters and interviews with local stakeholders.](#)

3.4 Preparation of Draft Validation Report

Based on the findings of the desk review and site visit, ERM CVS prepared a draft validation report including a list of CARs and CLs, and provided this to the PPs. Where issues are identified that need to be further elaborated, researched or added to in order to confirm that the project activity meets the Gold Standard requirements, ERM CVS identified these issues in the DVR so that they could be discussed with the PPs and concluded upon in the final validation report (FVR).

A CDM validation report is prepared in parallel. Issues covered in the CDM validation report are not repeated in the Sustainability validation report.

3.4.1 Remediation requests

Where issues were identified, ERM CVS raised one of the following remediation requests:

Clarification Request (CL): where information is insufficient or not clear enough to determine whether the applicable Gold Standard requirements have been met.

Corrective Action Request (CAR): where the Gold Standard requirements have not been met.

Forward Action Requests (FAR): where it was necessary to highlight issues related to project implementation that require review during the first verification of the project activity.

CARs and CLs must be 'closed out' before the validation can be concluded. Close out is only possible where the PPs modify the project design, rectify the PDD or provide adequate additional explanation or evidence that satisfies ERM CVS's concerns. The validation process may be halted until the CARs and CLs are addressed to the validation team's satisfaction.

3.5 Final Validation Report and Validation Opinion

The final validation report (FVR) is completed when the CARs and CLs have been closed out to the satisfaction of ERM CVS. The FVR includes the validation opinion that sets out the validation conclusion regarding the compliance of the project with Gold Standard requirements that are not covered in the CDM validation report.

3.6 Internal Quality Control

The process of validation and decision of the validation team has been subject to an independent Technical Review. The scope of the Technical Review process is to independently assess that all procedures have been followed, necessary requirements have been met, and all conclusions are justified. The final validation decision is based on the findings and conclusions of the validation team, assessing the compliance of the project activity with the Gold Standard requirements, and the technical evaluation of the independent technical reviewer. The final report is then reviewed and approved by the qualified signatory / final decision maker within ERM CVS.

4 Validation findings – Gold Standard Criteria

4.1 Project eligibility

ERM CVS assessed whether the proposed PoA and CPA meets Gold Standard requirements on project type, GHGs, project cycle and double counting.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
4.1.1	Does the project fit either in the renewable energy supply category, the end-use energy efficiency improvement category or waste handling and disposal, as defined in the GS Toolkit and Annex C – Specific Eligibility Criteria?	The project is a renewable energy project using solar photovoltaic (PV) technology.	OK	OK
4.1.2	Are the GHGs involved in the project boundary eligible under the Gold Standard, i.e. are they limited to CO ₂ , CH ₄ and N ₂ O?	Yes. The PoA and CPA reduces emissions of CO ₂ by the provision of renewable electricity.	OK	OK
4.1.3	Was an announcement made about the project going ahead without the revenue from carbon credits? If yes, was it subsequently cancelled or was the design significantly revised? Were reasons for that provided?	No. ERM CVS has not found any evidence of announcements of the PoA, or CPA1 going ahead without carbon finance. CDM and Gold Standard is fully considered in the design of the PoA and CPAs.	OK	OK
4.1.4	Is the start date of the PoA/CPA before the date of first submission? If so, then has a pre-feasibility assessment been carried out?	In the case of this PoA, the start date is defined as the date the coordinating/managing entity officially notifies the secretariat and the DNA of their intention to seek the CDM status, i.e. 15 January 2014. This is validated in the CDM validation report. The start date of the CPA has been confirmed as 14 February 2014, the date of financial closure. <u>ERM CVS validated that the start date has been correctly defined as the earliest date of implementation or real action on the CPA.</u> Please refer to the CDM validation report for details. The date of first submission is defined in the GS requirements v2.2 as the submission of the local stakeholder report (for projects under the regular project cycle) or submission of the documentation for pre-feasibility assessment, for projects under the retroactive project cycle. The local stakeholder consultation was carried out on 10 February 2014, and the LSC report is dated 13 February 2014. The LSC report was not submitted to the Gold Standard until September 2014, after the start date of the PoA. However the project developer had email correspondence with the Gold Standard and because the LSC was conducted before the start date of the project, the Gold Standard agreed to accept the project as a regular cycle project. ERM CVS has reviewed the correspondence with the Gold Standard /11/. <u>The PPs have chosen a 7 year (renewable) crediting period (01 Jan 2016 - 31 Dec 2022).</u>	OK	OK
4.1.5	Does the project participate in other certification schemes than CDM and Gold standard?	No. ERM CVS has found no evidence of participation in other certification schemes.	OK	OK

4.2 Deviations on GHG emission reduction estimation

ERM CVS evaluated whether the principle of conservativeness was applied in selection of baseline scenario.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
4.2.1	Was the principle of conservativeness applied in selection of baseline scenario?	The baseline is defined by the methodologies, and hence PPs are not able to select from a range of different baselines. For the first CPA, in accordance with the simplified baseline and monitoring methodology AMS-I.D Grid connected renewable electricity generation, the CPA-DD includes the baseline scenario, which is "the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid". The baseline has been correctly identified in the PoA and CPA following the methodology which provides for a conservative determination of emission reductions. <u>ERM CVS reviewed the grid emissions factor to ensure conservativeness – please refer to the CDM validation report for details. Since the project was submitted to the CDM, the grid emissions factor has been updated and approved as a standardised baseline by the UNFCCC (https://cdm.unfccc.int/methodologies/standard_base/2015/sb64.html). The revised combined margin emissions factor for wind and solar projects (0.676 tCO₂/MWh) is slightly higher than the grid emissions factor used in the project activity (0.66 tCO₂/MWh), therefore the grid emissions factor applied in this project remains conservative.</u>	OK	OK

4.3 Gold Standard criteria on additionality

ERM CVS evaluated whether additionality assessment complies with the GS requirements.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	Is the tool used for proving additionality, included in the list of approved additionality tools? Is the latest version of it used?	As confirmed in section 6.1 of the validation report, eligibility criteria include a condition that each CPA needs to demonstrate additionality. Additionality is demonstrated differently for each different CPA type contained in the PoA: <u>CPA type 1: Greenfield small-scale solar PV power plants/units in Rwanda applying automatic additionality</u> The PoA uses the Guidelines for demonstration additionality of small-scale project activities (version 09.0), now revised to methodological tool: Demonstration of additionality of small-scale project activities (version 10.0), to set up eligibility criteria for CPAs looking to be included through automatic additionality. <u>CPA type 2: Greenfield large-scale solar PV power plants/units in Rwanda applying first-of-its-kind analysis</u> The PoA sets the additionality eligibility criterion in accordance with the Guidelines on additionality of first-of-its-kind project activities (version 02.0), now revised to methodological tool on additionality of first-of-its-kind project activities (version 03.0, EB 84, Annex 6). <u>CPA type 3: Greenfield large-scale solar PV power plants/units in Rwanda applying investment analysis</u>	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		- CPA type 4: Greenfield large-scale solar PV power plants/units in Rwanda applying barrier analysis - CPA type 5: Greenfield large-scale solar PV power plants/units in Rwanda applying automatic additionality The PoA uses the Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (version 03.0) to set the eligibility criteria for CPAs. PoAs that consist of one or more large-scale projects as CPAs shall include eligibility criteria derived from all the relevant requirements contained in the additionality section of the large scale methodologies. ACM0002 requires that: "The additionality of a project activity shall be demonstrated and assessed using the latest version of the Tool for the demonstration and assessment of additionality" (version 07.0.0). Guidelines on the assessment of investment analysis (version 05.0), now revised to the Methodological tool: Investment analysis, Version 06.0, Guidelines for the reporting and validation of plant load factors (version 01) and Guidelines on common practice (version 02.0), now revised to the Methodological tool: Common practice, Version 03.1 are also used to determine the additionality under these CPA types. CPA 1 falls under CPA type I "Greenfield small-scale solar PV power plants/units in Rwanda applying automatic additionality". Please see the CDM validation report for the CPA for details of how the additionality of CPA 1 was validated. The means of determining additionality are approved methods under the Gold Standard. For further details of the CPA types and additionality criteria, please refer to the CDM PoA validation report.		
	Is the assessment of additionality in line with the GS's mandatory guidance for the use of the UNFCCC tools for demonstration of additionality as presented in the GS Toolkit?	Additionality is demonstrated in line with the latest CDM guidelines and tools. Please see the CDM validation report for further details of how this was validated.	OK	OK

4.4 Sustainability assessment

ERM CVS validated whether the Do No Harm Assessment and Detailed impact assessment – sustainable development matrix – were completed in accordance with the GS guidance.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK				
4.4.1	Were the risks sufficiently assessed that the project could have harmful impacts, using safeguarding principles of the UNDP as set out in the GS Toolkit? Was guidance in GS Annexes C and G sufficiently considered? Were any additional critical issues relevant for the project type and not covered by the	The do-no-harm assessment and sustainable development assessment are done at the CPA level, which is the preferred level for conducting these assessments. The <u>do-no-harm assessment</u> was carried out based on the UNDP safeguarding principles derived from the Millennium Development Goals, and all 11 principles have been addressed. ERM CVS has reviewed the do no harm assessment and considers that the risk scoring against each indicator is reasonable. The safeguarding principles have been complied with as follows: <table><tr><th>Safeguarding principle</th><th>Project compliance</th></tr><tr><td>Human rights</td><td>The project is located on privately owned land which was not occupied or lived on prior to the project development. The EIA /13/ was done in line with the World Bank</td></tr></table>	Safeguarding principle	Project compliance	Human rights	The project is located on privately owned land which was not occupied or lived on prior to the project development. The EIA /13/ was done in line with the World Bank	CAR 01	OK
Safeguarding principle	Project compliance							
Human rights	The project is located on privately owned land which was not occupied or lived on prior to the project development. The EIA /13/ was done in line with the World Bank							

	Question	Validation findings (including justification and substantiation of information, data and evidence)		Draft OK/ CAR/CL	Final OK/ Not OK
	safeguarding principles evaluated and added?		environmental and social safeguarding policy. The environmental impact assessment determined that there would be no negative impacts on cultural property. The project has been approved by the Government of Rwanda as complying with Rwandan legislation.		
		Resettlement	No resettlement will take place as the land was unoccupied prior to the project. This was confirmed against the EIA and interviews with local stakeholders.		
		Cultural heritage	The environmental impact assessment determined that there would be no negative impacts on cultural heritage.		
		Employee freedoms Compulsory labour Child labour Discrimination based on gender, race, religion, sexual orientation or any other basis	Gigawatt Global Rwanda Ltd. has established a Human Resources Policy /14/ consistent with the requirements of the IFC Performance Standards on Labour and Working Conditions. <u>The DOE site visit took place once the project was already operational. The site has very few employees and hence presents low risks in terms of labour practices. During the site visit ERM CVS interviewed employees of the project from Afritech (local contractor) and SCATEC Solar (lead contractor) including about working conditions on the site. No concerns were raised by the employees, nor did local representatives (e.g. the Umudugudu Chief) raise any concerns regarding labour practices or working conditions. No evidence of compulsory labour, child labour or discrimination based on gender, race, religion, sexual orientation or any other basis was found during the site visit.</u>		
		Safe working environment	The project has been approved by the Government of Rwanda as being compliant with Rwandan legislation (including labour laws and health and safety regulations). ERM CVS visited the project site and interviewed employees and local stakeholders, and did not identify any concerns around unsafe working conditions. The site consists of a series of solar photovoltaic panels with minimal moving parts and minimal exposure to noise, chemicals, heights, etc. <u>ERM CVS reviewed a site induction document /14/ which includes mandatory health and safety training, emergency response training, safety rules, emergency contacts list, occupational health provisions and a risk assessment of health and safety hazards on the site. ERM CVS also reviewed training records of site inductions and risk assessment training for project staff /08/.</u>		
		Natural habitats	The EIA has confirmed that the project does not have significant impacts on critical natural habitats or protected areas		

	Question	Validation findings (including justification and substantiation of information, data and evidence)		Draft OK/ CAR/CL	Final OK/ Not OK				
		<table><tr><td>Precautionary principle</td><td>The project has been developed in line with Rwandan law and has been subject to an environmental impact assessment and approval process. An environmental and social impact management plan is in place.</td></tr><tr><td>Corruption</td><td>Rwanda is a signatory to the United Nations Convention Against Corruption (www.unodc.org/unodc/en/treaties/CAC/signatories.html). The project has been developed in compliance with Rwandan laws and regulations and has been approved by the Government of Rwanda. ERM CVS has reviewed the anti-corruption policy of Scatec Solar, the company responsible for construction and initial operation of the project (www.scatecsolar.com/Sustainability/Trusted-business-partner/Anti-corruption), which commits the company to a zero tolerance approach to bribery and corruption.</td></tr></table>	Precautionary principle	The project has been developed in line with Rwandan law and has been subject to an environmental impact assessment and approval process. An environmental and social impact management plan is in place.	Corruption	Rwanda is a signatory to the United Nations Convention Against Corruption (www.unodc.org/unodc/en/treaties/CAC/signatories.html). The project has been developed in compliance with Rwandan laws and regulations and has been approved by the Government of Rwanda. ERM CVS has reviewed the anti-corruption policy of Scatec Solar, the company responsible for construction and initial operation of the project (www.scatecsolar.com/Sustainability/Trusted-business-partner/Anti-corruption), which commits the company to a zero tolerance approach to bribery and corruption.			
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Corruption	Rwanda is a signatory to the United Nations Convention Against Corruption (www.unodc.org/unodc/en/treaties/CAC/signatories.html). The project has been developed in compliance with Rwandan laws and regulations and has been approved by the Government of Rwanda. ERM CVS has reviewed the anti-corruption policy of Scatec Solar, the company responsible for construction and initial operation of the project (www.scatecsolar.com/Sustainability/Trusted-business-partner/Anti-corruption), which commits the company to a zero tolerance approach to bribery and corruption.								
		Additional relevant issues for the project type (renewable energy: solar PV) have been considered: soil erosion, visual impact, and vegetation loss. The risk of each is considered medium and therefore mitigation measures have been proposed in the form of a drainage system and revegetation. However the sustainability monitoring plan does not include monitoring of revegetation initiatives. Please see CAR 1. The <u>sustainable development matrix</u> was prepared in line with the Gold Standard guidelines, at the CPA level. No indicators received a negative score. The scoring and targets for each indicator are validated below. The stakeholder consultation reports include a description of how the sustainable development matrix was presented to stakeholders and how the stakeholders provided input to this.							
4.4.2	Have appropriate mitigation measures been proposed where there is medium to high risk?	Some risks were considered as medium (soil erosion, visual impact, and vegetation loss). These are all subject to mitigation measures (soil erosion will be addressed by drainage and revegetation efforts, and visual impact and vegetation loss will be addressed by revegetation efforts) – for details of how these were validated, please see below for details of the sustainability monitoring plan.		OK	OK				
4.4.3	Has the sustainable development matrix been fully completed? Are all twelve indicators considered?	The matrix has been fully completed at CPA level and all 12 indicators have been considered.		OK	OK				
4.4.4	Have appropriate wider boundaries been applied in the detailed impact assessment than the boundaries defined in the applied baseline and monitoring methodology?	The impacts of the project on wider factors such as social impacts (livelihoods, employment etc.) have been considered, beyond the physical geographical site of the project activity.		OK	OK				
4.4.5	Are the target value and scoring of the indicator appropriate? Assessment for each indicator is provided in the table below	Please refer to the table below		OK	OK				

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
4.4.6	If the sustainable development assessment was only done at the PoA level, has the PP provided a set of clear sustainable development criteria for CPA inclusion?	Not applicable	n/a	n/a
4.4.7	<u>Does the CPA meet any sustainable development criteria for CPA inclusion into the PoA? How has this been validated?</u>	<u>There are no sustainable development criteria for inclusion of GS CPAs in the GS PoA passport. However, as per GS rules all CPAs included will carry out a detailed sustainable development impact assessment, any indicator scored negative shall be neutralized with appropriate mitigation measures, and all non neutral indicators shall be monitored. As per GS requirements, all projects must at least contribute positively to at two of the three main categories of sustainable development impacts and have a neutral total score for the third category.</u> <u>In the case of this CPA, ERM CVS has validated the do no harm assessment and SD matrix in this validation report.</u>	<u>OK</u>	<u>OK</u>

4.4.7

Indicator	Have appropriate parameters been identified in the sustainable development assessment?	Is the scoring of the indicator arrived at in the sustainable development assessment appropriate?
Air quality	Yes – two parameters were chosen and included in the SD monitoring plan. Parameter 1: Use water sprinklers during construction. Parameter 2: Revegetation of areas within the project site not being used by the project These are considered appropriate to address dust issues during construction.	The scoring is considered appropriate given that impacts of dust will be temporary (during construction phase only), and will be mitigated by the use of sprinklers /13/06/. ERM CVS also notes that the project has wider beneficial impacts on air quality through the provision of renewable electricity which can reduce the need for fossil fuel based electricity generation.
Water quality and quantity	Not applicable. The indicator is given a neutral score.	The scoring is considered appropriate given that the solar PV plant is not expected to have any impact on water quality and quantity. ERM CVS has reviewed the Environmental and Social Impact Management Plan of the project prepared by Scatec Solar /06/. No watercourses exist within the project site and the operation of the project equipment does not require any water input. Runoff of water from the site could be an issue, and it was observed during the site visit that neighbouring landowners had requested remedial works be carried out to minimise any excess runoff / surface water flooding from the site. The implementation of a drainage system is covered under 'soil condition' below. Water used for cleaning of the solar panels is not expected to be an issue. Precipitation during the from the wet seasons is usually less than 1000mm. Rwamagana district where the project is located has an average of 907 mm rainfall per year. Only three months are considered dry with rainfall amounts below 40mm per month (http://en.climate-data.org/location/28622/; http://www.physicalgeography.net/fundamentals/7v.html).
Soil condition	Yes, the parameter chosen is absence of signs of water eroded landscapes and soil accumulation or deposits on the project site.	The neutral score is considered reasonable. Although the project may have an impact on surface water runoff, and indeed this was observed on site as remedial works were in

Indicator	Have appropriate parameters been identified in the sustainable development assessment?	Is the scoring of the indicator arrived at in the sustainable development assessment appropriate?
	This will be subject to monitoring as part of the SD monitoring plan. Since monitoring of erosion will be done through annual inspection, this is considered appropriate.	progress to build a regulating pond to avoid any surface water flooding, implementation of a drainage system is part of the project plan, included in the EIA /13/, and will be monitored as part of the SD monitoring plan (see below). There will be minimal excavated soil produced by the project. The project has already been implemented. The poles supporting the PV modules were designed to be driven about 3 metres into the ground, requiring minimal soil movements. ERM CVS observed the landscaping efforts on site, and these can be observed on an ongoing basis by the verifying DOE.
Other pollutants	Two parameters have been identified: Parameter1: Number of protective noise gears purchased for the employees working on the power plant Parameter 2: Records of safe solid waste disposal.	The neutral score is considered reasonable. Noise pollution during construction and solid waste pollution will be subject to mitigation measures (Personal Protective Equipment for employees against noise and introducing waste collection containers on site) and these measures are covered in the SD monitoring plan (see below). The plant will not generate significant noise during the operational phase, as it is a solar PV power plant.
Biodiversity	Not applicable. The indicator is given a neutral score.	The neutral score is considered reasonable. The project is located on land where a protected species <i>Erythrina abyssinica</i>, locally known as Umuko, grows. Identified Umuko plans will be relocated to land surrounding the site and this will be monitored as part of the SD monitoring plan (see below).
Quality of employment	The project is designed to train and develop staff through the provision of health and safety training. Training records have been identified as the parameter, and these are included in the SD monitoring plan.	The indicator is given a positive score. This is considered reasonable considering that the project is designed to provide opportunities for a limited number of local people to gain employment during the construction phase, and they will be provided necessary training.
Livelihood of the poor	Not applicable. The indicator is given a neutral score.	The parameter is given a neutral score given that the project will not require a significant number of staff on site during the operational phase, and considering that the project supplies electricity to the grid and not directly to local homes (although increasing electricity supply in the country will have a positive contribution to overall economic development).
Access to affordable and clean energy services	The parameter chosen is the amount of electricity generated from solar power. This is considered appropriate.	The indicator is given a positive score. This is considered reasonable since the project will result in more clean energy being available in Rwanda as a whole, as part of the overall national development strategy.
Human and institutional capacity	The indicator is given a positive score. The chosen parameter is the number of academic trips made by various academic institutions. The site will host parties of schoolchildren and students who will come to learn more about renewable energy. The parameter is considered appropriate.	The positive score is considered appropriate since visits by school groups are expected to increase awareness and knowledge about renewable energy technologies and their potential in Rwanda.
Quantitative employment and income generation	The parameter chosen is the number of employees during the construction and operational phases.	The parameter is given a positive score. This is considered reasonable given that, although the project is not expected to directly employ many staff, it will bring some employment and this can be directly monitored. ERM CVS has validated the extent to which employment

Indicator	Have appropriate parameters been identified in the sustainable development assessment?	Is the scoring of the indicator arrived at in the sustainable development assessment appropriate?
		<u>opportunities are provided to local people, whether the positions provided are permanent and what the salary level is:</u> <u>ERM CVS reviewed a day log showing the number of locals employed as temporary workers (about 150) during the project construction phase /15/</u> <u>ERM CVS has reviewed the Environmental and Social Impact Management Plan showing the minimum salary range of 2000 francs per day /06/.</u>
Balance of payments and investment	Not applicable. The indicator is given a neutral score.	The neutral score is considered reasonable. The project is not expected to have any significant impact on balance of payments and investment.
Technology transfer and technological self-reliance	The parameter chosen is (1) the number of trainings given to employees, and (2) excursions carried out on the power plant by different institutions (which are designed to increase awareness of renewable energy technology). The parameters are considered reasonable.	The positive score is considered reasonable given that the project is the first utility-scale solar PV power plant in Rwanda, and will serve as an example and proof-of-concept to other potential projects in the future. Training to employees, particularly technical staff, and visits by various institutions, could help to promote wider technology transfer.

4.5 Gold Standard Criteria for Stakeholder Consultation

ERM CVS evaluated whether the stakeholder consultation were carried out according to the procedures, requirements and guidance of the Gold Standard.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
4.6.1	Have inputs been invited from all relevant stakeholders pro-actively? Refer to the invitee categories in the GS Toolkit Were the invitations tracked? Was the DNA or the national focal point notified about the project?	The PP has identified relevant stakeholders from all categories in the GS Toolkit and invited them to participate in the stakeholder consultation process. Invitations were tracked in the LSC report, and included local residents, local leaders, GS NGOs, renewable energy organisations in Rwanda, the DNA, Rwanda Environment Management Authority, Rwanda Development Board and academic institutions.	OK	OK
4.6.2	Was at least one public meeting organised? Was the stakeholder consultation meeting planned and organised at suitable stage of the project? Was the date, time and location of the meeting appropriate?	Yes, a public meeting was held on 10 February 2014 at the Agahozo-Shalom Youth Village, which is next to the site of the project. This was a suitable stage of project development, given that it was before the start date of the project (date of financial close, 14 Feb 2014). Stakeholders interviewed on site also indicated they were happy with the consultation provided, including the timing of the meeting. The date, time and location of the meeting are therefore considered appropriate.	OK	OK
4.6.3	Was a non-technical summary prepared in the most appropriate language? Is it clear and understandable to	A non-technical summary was prepared in English and Kinyarwanda so that it would be clear and understandable to stakeholders.	OK	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	local stakeholders?			
4.6.4	Was the meeting well documented? Is the meeting in line with the host country requirements?	The meeting has been well documented in local stakeholder consultation reports /03/. ERM CVS has reviewed the requirements of the DNA of Rwanda for local stakeholder consultation /12/ and confirmed that the PoA complies with the provided guidance. The DNA was invited to the consultation meeting. The DNA has issued a letter of approval, indicating that the PoA meets all host country requirements.	OK	OK
4.6.5	Were the safeguarding principles and sustainability indicators discussed and assessed during the stakeholder consultation meeting?	Yes, the stakeholder consultation included presentation of the sustainable development matrix and discussion and input from the participants to refine the indicators and parameters. ERM CVS has reviewed the local stakeholder consultation report /03/, interviewed the CME and its local representatives and partners who assisted with the consultants, and has interviewed several stakeholders who were at the meetings to confirm this.	OK	OK
4.6.6	Were the stakeholder comments taken into account in the project design?	The comments raised by stakeholders were mostly general in nature and did not lead to immediate changes in the design of the project. The comments raised by stakeholders are addressed by the mitigation measures outlined in the sustainable development matrix, following the stakeholder consultation, which will be subject to monitoring.	OK	OK
4.6.7	Was the LSC report completed and submitted to the Gold Standard within 3 months following the date of the meeting?	The report is dated 13 February 2014. Although it was not submitted within 3 months, the Gold Standard accepted the project as a regular cycle project /11/.	OK	OK
4.6.8	Were the FARs raised in the LSC review by The Gold Standard addressed appropriately?	Gold Standard raised one FAR in the LSC review: Forward Action Request #1: The PP shall ensure that international GS NGO supporters (WWF International, Helio International, REEEP, World Vision Australia and Mercy Corps) as well as all relevant NGOs in the host country working on topics relevant to the given project activity will be invited for the SFR. CL 01: Please describe the stakeholder feedback round in an updated CPA passport. Following closure of CL 1 it has been confirmed that the SFR was appropriately organised.	CL 1	OK
4.6.9	Was the stakeholder feedback round organised?	Please see CL 1 Following closure of CL 1 it has been confirmed that the SFR was appropriately organised – please refer to the remediation form below to see how it was validated.	CL 1	OK
4.6.10	Has a continuous input / grievance mechanism been established?	Yes, a continuous input grievance mechanism has been established. During the on site interviews ERM CVS confirmed that an expression book will be made available at the <u>entrance to the Agahozo-Shalom Youth Village next to the Power Plant</u> . <u>ERM CVS confirmed that the information provided in section E.2. of the LSC report is correct. The PP has also provided a comments/suggestion box at the entrance to the power plant, and the Umudugudu Chief confirmed during on site interviews that he is in contact with the local community and passes on any concerns and comments to the project to ensure they are adequately addressed.</u> The Gold Standard feedback mentioned that the telephone number of the Umudugudu Chief and email addresses of Gold Standard should also be provided. CL 2 was raised to provide confirmation that this has been done. CL 2 was addressed, as it was confirmed that The telephone number of the Umudugudu Chief together with the email addresses of the Gold Standard were added to the revised LSC report, which was shared with Stakeholders during the	CL 02	OK

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
		Stakeholder Feedback Round.		

4.6 Pre-feasibility assessment

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/CAR/ CL	Final OK/ NOT OK
	Is a pre-feasibility assessment of the project activity by the Gold Standard required?	No, a pre-feasibility assessment was not required for this PoA or either CPA.	n/a	n/a

4.7 Sustainability monitoring plan

ERM CVS has evaluated whether the sustainability monitoring plan is complete and appropriate for the type and scale of the project.

	Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
4.8.1	Does the sustainability monitoring plan cover all non-neutral indicators?	Yes, all non-neutral indicators are covered in the sustainability monitoring plan.	OK	OK
4.8.2	Are mitigation and compensation measures in place to prevent violation or the risk of violating safeguarding principles of the Do No Harm Assessment that have been indicated as having a risk?	Relevant mitigation measures are in place through the Environmental and Social Impact Management Plan /06/ and have been included in the sustainable development monitoring plan – please see below for details.	OK	OK
4.8.3	Does the monitoring plan address stakeholder concerns?	The sustainable development exercise in the local stakeholder consultation meetings generated some inputs from participants on the sustainable development indicators. Comments were raised on soil erosion and drainage, both of which are addressed in the sustainability monitoring plan. Overall, no indicators were scored as negative in the stakeholder consultation. All indicators were scored positive in the blind stakeholder exercise, except for Water Quality and Quantity, Soil Condition, Other Pollutants, Biodiversity, Livelihood of the Poor, and Balance of Payments and Investment which were given a neutral score. The scores of stakeholders were different from the initial score by the project developer in two cases: - 'other pollutants' was initially categorised as neutral but stakeholders viewed this as a positive impact. Therefore it has been included in the SD monitoring plan. - 'access to affordable and clean energy services' was initially scored positive but stakeholders scored this as neutral because it will not have a direct impact on energy prices. Nevertheless the impact of the project in this area will be monitored based on the amount of electricity generated, since in macro terms the project could help Rwanda to	OK	OK

Question	Validation findings (including justification and substantiation of information, data and evidence)	Draft OK/ CAR/CL	Final OK/ Not OK
	achieve it targets for expansion in electricity generation capacity, and expansion in renewable energy. Therefore the sustainability monitoring plan is considered to address stakeholder concerns raised during the LSCs.		

4.8 Sustainability monitoring indicators

For each of the sustainability indicators that will be monitored as part of the sustainability monitoring plan, ERM CVS has validated whether the sustainability monitoring plan has been developed in accordance with the GS rules and guidance. The sustainability monitoring plans of both CPAs (Rwanda and Ethiopia) are the same as the sustainability monitoring plan set out at the PoA level. The only differences being some references to the baseline situation in each country (at the PoA level, information on both countries is given; at the CPA level only the relevant country is discussed). Therefore the validation of the sustainability monitoring plan is the same for both countries and covers both CPAs.

Monitored sustainability indicator	Air quality
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes. The chosen parameters are the operation of water sprinklers during construction, and revegetation of areas within the project site not being used by the project.
Is the current status or expected status under the baseline appropriate? How was it validated?	The current situation of water sprinklers is not applicable. The baseline situation of the landscape on site should be described. Please see CL 03.
Is the future target suitable?	Yes – the target is that sprinklers will be used throughout the construction phase to ensure dust emissions are minimal. The future target for revegetation is that any area left bare and not in use after the construction will be landscaped.
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	The means to monitor the indicators are not clearly described in the GS passport – it is not clearly explained how the landscaping will be checked, and what the criteria are for considering the revegetation to have been properly carried out. Please see CL 1 CL 1 was addressed – please see the remediation form for details.
Is the frequency of monitoring appropriate?	The monitoring is carried out during the construction phase, however the frequency is not stated. Please see CL 1 CL 1 was addressed – please see the remediation form for details.

Monitored sustainability indicator	Soil condition
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline	Yes. The current status is the prior state of the land, which was confirmed by

Monitored sustainability indicator	Soil condition
appropriate? How was it validated?	review of the EIA and the visit to the site /13/.
Is the future target suitable?	Yes – the future target is the prevention of (all) soil erosion through the development of a drainage system.
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes – the means of monitoring will be to check that no eroded areas exist, however the sustainability monitoring plan does not include monitoring revegetation initiatives. Please see CAR 1. The monitoring plan was revised to include monitoring of revegetation initiatives and CAR 1 was closed. Please see the remediation form for details.
Is the frequency of monitoring appropriate?	Monitoring is described as continuous, however more details of how records of this monitoring will be kept should be provided – please see CL 03. The monitoring plan was revised – it was clarified that vegetation will be inspected monthly and operation of the drainage system will be reported at least monthly. CL 03 was closed. Please see the remediation form for details.

Monitored sustainability indicator	Other pollutants: Noise Pollution
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes – the number of protective noise gears (Personal Protective Equipment)
Is the current status or expected status under the baseline appropriate? How was it validated?	Yes – current status is an absence of noise, before construction began, as confirmed by the visit to the site
Is the future target suitable?	Yes –employees who work near machines that produce more than 70db will wear protective gear.
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes. The number of protective noise gears purchased/provided will be recorded.
Is the frequency of monitoring appropriate?	The frequency of monitoring is not stated – please see CL 03 <u>Frequency was clarified as daily.</u>

Monitored sustainability indicator	Other pollutants – solid waste
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	Yes – validated against the EIA /13/
Is the future target suitable?	Yes
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes
Is the frequency of monitoring appropriate?	The frequency of monitoring is not stated – please see CL 03

Monitored sustainability indicator	Other pollutants – solid waste
	<u>Frequency was clarified as weekly.</u>

Monitored sustainability indicator	Biodiversity
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	Yes – as confirmed by the EIA /13/
Is the future target suitable?	Yes
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	The monitoring does not include the number of Erythrina abyssinica trees present on the site before construction, and the number successfully relocated. Please see CL 03.
Is the frequency of monitoring appropriate?	The frequency of monitoring is not stated – please see CL 03 <u>Monitoring was clarified as one off (the presence of the single Erythrina abyssinica tree) and at least monthly (vegetation cover on landscaped area).</u>

Monitored sustainability indicator	Quality of employment
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	Not applicable
Is the future target suitable?	A quantitative target, e.g. 100% of employees trained, should be considered – please see CL 03.
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes
Is the frequency of monitoring appropriate?	The frequency of monitoring is not stated – please see CL 03 <u>Monitoring was clarified as daily during the construction phase, and annually for the operation phase.</u>

Monitored sustainability indicator	Quantitative employment and income generation
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	Yes – statistics from the AfDB have been provided

Monitored sustainability indicator	Quantitative employment and income generation
Is the future target suitable?	The future target is that the population around the site will gain jobs from the project – i.e. some local workers will be employed. A quantity is not specified.
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes, however the number of jobs going to local people is not monitored – please see CL 03.
Is the frequency of monitoring appropriate?	Frequency is continuous. However the PP should consider how frequently the number of jobs will actually be recorded – e.g. annually. Please see CL 03. <u>Monitoring was clarified as half-yearly.</u>

Monitored sustainability indicator	Human and institutional capacity
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	n/a
Is the future target suitable?	Yes
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes
Is the frequency of monitoring appropriate?	Frequency is continuous. However the PP should consider how frequently the parameter will actually be recorded – e.g. annually. Please see CL 03. <u>Monitoring was clarified as half-yearly.</u>

Monitored sustainability indicator	Technology transfer and technological self-reliance
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	n/a – in the baseline the project doesn't exist hence technology is not transferred
Is the future target suitable?	Yes
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes
Is the frequency of monitoring appropriate?	Frequency is continuous. However the PP should consider how frequently the parameter will actually be recorded – e.g. annually. Please see CL 03. <u>Monitoring was clarified as half-yearly.</u>

Monitored sustainability indicator	Access to affordable and clean energy services
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Monitored sustainability indicator	Access to affordable and clean energy services
Are the chosen parameters in line with the results of the sustainability assessment? (See above for validation of the appropriateness of the parameters as identified in the sustainability assessment).	Yes
Is the current status or expected status under the baseline appropriate? How was it validated?	Yes – based on EWSA electricity data
Is the future target suitable?	Yes
Are the means to monitor the indicator suitable, clear and proportionate to the size of the project?	Yes
Is the frequency of monitoring appropriate?	Frequency is continuous. However the PP should consider how frequently the parameter will actually be recorded — e.g.-annually . Please see CL 03. <u>Monitoring was clarified as monthly.</u>

Appendix A: Documents and Interviewees

4.9 A.1 DOCUMENT LIST

Reference number	Date	Document Title and version number (if applicable)
01	21 May 2014 – version 1	PoA Passport
02	21 May 2014 – version 1 16 May 2016 – version 5	CPA Passport
03	13 February 2014 Version 1 15 June 2015 Version 2	LSC report
04	Undated	Design consultation report
05	25 November 2014 (version 1) 3 July 2015 (final version)	Design Consultation review by Gold Standard
06	7 March 2014	Environmental and Social Impact Management Plan prepared by Scatec Solar
07	15 October 2015	ODA declaration signed by Gigawatt Global Rwanda
08	24 May 2014 and 10 June 2014	Training records of site inductions and risk assessment training for project staff
09	25 November 2014 (version 1) 3 July 2015 (final version)	LSC review by Gold Standard
10	11 September 2014	Letter from GWG to Gold Standard requesting advice on the Gold Standard registration process
11	12 September 2015	Copy of email correspondence with Gold Standard accepting the project as a regular cycle project
12	31 January 2014	Invitee list / tracking sheet of organisations and individuals invited to the LSC and SFR
13		Environmental and Social Impact Assessment (EIA)
14	31 March 2014	Site induction materials, including HR policy for the site, developed by Scatec Solar
<u>15</u>	<u>6 October 2010</u>	<u>Daily Labour List - log showing the number of locals employed as temporary workers during the project construction phase</u>

4.10 A.2 INTERVIEWS

Reference	Name	Title & Organisation	Main topics discussed
IV1	Carlos Guerrero	Carbon Africa, CDM consultants for the PoA	Project details and implementation; Carbon aspects; Project documentation PDD and Passport content Review of spreadsheets
IV2	Edwin Obiero	Carbon Africa, CDM consultants for the PoA	Project details and implementation; Carbon aspects; Project documentation PDD and Passport content Review of spreadsheets Project timeline and start date Stakeholder consultation and engagement
IV3	Trevor Green	Remote Group	Project set up (development) and finance Public funding Start date Project timeline Partners involved in the project
IV4	Immaculee Uwimana	Climate Change Mitigation Officer, REMA (DNA)	Local Stakeholder Meeting Host country requirements for CDM projects Host country requirements for local stakeholder consultations Host country requirements for EIAs Project compliance with host country requirements
IV5	Olivier Ngororabanga	Head of Energy Unit, Rwanda Development Board (RDB)	Sustainable development aspects of the Project; EIA approval, Public hearing to ascertain project impacts, Granting of investment certificate, Introduction of RSSB (Rwanda Social Security Board)
IV6	Karara Jean de Diew	EIA – Environmental Analyst, Investment Implementation Division, RDB	EIA & mitigation measures, Env. Social management plan Host country requirements for CDM projects Host country requirements for local stakeholder consultations Host country requirements for EIAs Project compliance with host country requirements
IV7	Edward Hakuzimana	Cell exec Secretary, Umudugudu Chief	Project benefits and complaints, EIA meeting and the ministry feedback Local stakeholder concerns Project outreach and engagement Continuous input / grievance mechanism Mitigation measures implemented by the project
IV8	Mugubire Celestian	Chief, Umudugudu Chief	Project benefits and complaints, LSC feedback Local stakeholder concerns Project outreach and engagement Continuous input / grievance mechanism Mitigation measures implemented by the project
IV9	Sultan Hukizimana	Electrical Technician, Afritech	Operations of the CPA, training Health and safety on site Labour conditions
IV10	Eugene	District Forestry Officer, Rwamagana District	Forestry scenario in Rwanda Biodiversity impacts of the project Mitigation measures e.g. tree transplanting.

Reference	Name	Title & Organisation	Main topics discussed
			revegetation
IV11	Michael Fichtenberg	Gigawatt Global Cooperatief U.A	Project implementation, CME responsibilities, monitoring, CDM loan scheme • Project description • Project timeline • Start date • Public funding • PoA operation and management plan • Stakeholder engagement • Environmental and health and safety policies
IV12	Niyendengere Faustin	RDIS	LSC meeting feedback • Local stakeholder consultation • Stakeholder comments • Continuous input / grievance mechanism • Mitigation measures
IV13	Christian Blom	SCATEC Solar	CPA solar site operation and maintenance, • Training • HR policy • EIA • Monitoring records • HSE reporting and incidents • Relationship with Afritech

Appendix B: Remediation Form

Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs)

Corrective Action Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CAR 1 the sustainability monitoring plan does not include monitoring of revegetation initiatives	4.4.1	Monitoring of the revegetation initiatives has been added to the parameter number 4 "Biodiversity".	Monitoring of the revegetation initiatives has been added to the parameter number 4 "Biodiversity". The PP will monitor vegetation cover on the area that was previously identified for landscaping. CAR closed

Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CL 01 Please describe the stakeholder feedback round in an updated CPA passport.	4.6.8	We have shared a revised passport, which contains details on the Stakeholder feedback Round.	The stakeholder feedback round was conducted and has been described in the updated CPA passport. The feedback round consisted of publishing the project documents (LSC report, PoA ad CPA passports and PoA and CPA DDs) online, inviting identified stakeholders to review them, and responding to any comments or questions. All the stakeholders who were invited for the LSC were also invited for the SFR, including Gold Standard NGOs such as CARE, WWF, HELIO, REEP, World Vision and Mercy Corps. ERM CVS has reviewed the invitee list document /12/. Most stakeholders were contacted via email, however the Umudugudu Chief was visited in person. The documents were also printed and made available at the site for local stakeholders. ERM CVS has reviewed copies of email and online invitations, which are provided in the updated CPA-DD. The SFR ran from 5 June to 4 September 2015. The only comment raised was feedback from the Umudugudu Chief verbally, who raised the comment that the project does not result directly in local rural electrification. This has already been discussed and addressed in the LSC.

Sustainability Validation Report



Clarification Requests	Ref. to Question Number	Summary of PPs' response	Final conclusion
CL 02 The Gold Standard feedback mentioned that the telephone number of the Umudugudu Chief and email addresses of Gold Standard should also be provided. Please provide confirmation that this has been done.	4.6.10	The telephone number of the Umudugudu Chief together with the email addresses of the Gold Standard were added to the revised LSC report, which was shared with Stakeholders during the Stakeholder Feedback Round. The same contact details have been included in the revised CPA passport. Both documents have been shared by the Project proponent.	The telephone number of the Umudugudu Chief together with the email addresses of the Gold Standard were added to the revised LSC report, which was shared with Stakeholders during the Stakeholder Feedback Round. ERM CVS has reviewed the LSC report /03/ to confirm this. CL closed
CL 03 – sustainability monitoring plan: (a) Air quality: The baseline situation of the landscape on site should be described, and the way that landscaping will be monitored has not been clearly explained (b) Soil condition: Monitoring is described as continuous, however more details of how records of this monitoring will be kept should be provided (c) The frequency of monitoring is not stated for the following parameters: air quality, noise pollution, solid waste, biodiversity, quantity of employment (d) Biodiversity: monitoring does not include the number of Erythrina abyssinica trees present on the site before construction, and the number successfully relocated (e) Parameters Quantitative employment and income generation, Human and institutional capacity, Technology transfer and technological self-reliance, and Access to affordable and clean energy services: Frequency is continuous. However the PP should consider how frequently each parameter will actually be recorded	4.8	a) Baseline situation of the landscape on site has been described. Landscaping has been clarified as revegetation. b) Description of monitoring the soil condition has been revised together with the frequency of the keeping records. c) Frequency of monitoring has been stated for noise pollution, solid waste, biodiversity and quality of employment. d) Monitoring of the number of Erythrina abyssinica before construction and number to be monitored for successful relocation has been described. e) The monitoring and frequency for recording has been revised for the parameters: Quantitative employment and income generation, Human and institutional capacity, Technology transfer and technological self-reliance, and Access to affordable and clean energy services f) Number of jobs going to local people has been added g) Quality of employment has been revised to reflect the qualitative target of the parameter.	(a) The baseline situation of the landscape on site was described. The whole area was covered by natural vegetation including grasses and shrubs. This was confirmed through interviews during the site visit and by review of the environmental impact assessment report /13/. Landscaping has been clarified as revegetation, (b) More details of the monitoring of soil condition have been added, including monitoring of the roads and fence line for vegetation cover and erosion. Before growing a closed grass layer is achieved, the site will be inspected every week. Ground maintenance workers will look for evidence of erosion for instance traces of flowing water (in a single stream) or gullies deeper than 10 cm in a collapsed form such as roads and trenches. After achieving a closed grass layer, the site will be inspected every month during the existence of the power plant. (c) The frequency of monitoring has been stated for the parameters noise pollution, solid waste, biodiversity, quantity of employment. Monitoring will be recorded at least monthly <u>(daily for noise pollution, weekly for solid waste)</u> . (d) The number of Erythrina abyssinica trees present on the site before construction has been clarified as one, and successful relocation of this tree will be monitored. (e) These parameters will be recorded at least half-yearly – the monitoring plan has been revised to clarify this. (f) The parameter now includes number of jobs going to Rwandese in general, and to local people.

Sustainability Validation Report



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(f) quantitative employment and income generation: the number of jobs going to local people is not monitored (g) quality of employment: a quantitative target, e.g. 100% of employees trained, should be considered.			(g) The monitoring plan has been revised to state that all workers will be expected to be trained in health and safety and in housekeeping rules, and therefore the target parameter will be 100%.