GLOBAL CARBON COUNCIL

Driving Climate Actions

Project Verification Report

V3.1 - 2020

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CONTENTS

COVER PAGE Project Verification Report Form (PVR)	
BASIC INFORMATION	
Name of approved GCC Project Verifier / Reference No. (also provide weblink of approved GCC Certificate)	LGAI Technological Center S.A. Certificate No: GCCV009/00 Date of Issue: 14/06/2022 https://www.globalcarboncouncil.com/wp-content/uploads/2023/06/GCCV-00900-LGAI-GCC-Verifier-Certificate.pdf
Type of Accreditation	☐ Individual Track[1] ☒ CDM Accreditation (Active accreditation from United Nations Framework Convention on Climate Change valid till 04/10/2023; Ref no. CDM-E0032) https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0032 ☐ ISO 14065 Accreditation
Approved GCC Scopes and GHG Sectoral scopes for Project Verification	GHG Sectoral Scope 1 – Energy industries (renewable / non-renewable sources) GCC scopes - Environmental No-net-harm (E+) Social No-net-harm (S+) UN Sustainability Development Goals (SDG+)
Validity of GCC approval of Verifier	24/03/2021 to 05/09/2023
Title, completion date, and Version number of the PSF to which this report applies	10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India Version: 4.0 Dated: - 27/07/2023
Title of the project activity	10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India
Project submission reference no. (as provided by GCC Program during GSC)	S00283 https://projects.globalcarboncouncil.com/project/424
Eligible GCC Project Type[2] as per the Project Standard (Tick applicable project type)	☒ **Type A:** ☐ Type A1 ☒ Type A2 (Sub type 1)

[1] **Note:** GCC Verifier under Individual tack is not eligible to conduct verifications for the GCC project that intends to supply carbon credits (ACCs) for CORSIA requirements.

[2] Project Types defined in Project Standard and Program Definitions on GCC website.

	☐ **Type B – De-registered CDM Projects:** ☐ Type B1 ☐ Type[3] B2
Date of completion of Local stakeholder consultation	24/10/2018
Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.	Date of GSC completion: - 15/08/2022 GSC Period: - 01/08/2022 to 15/08/2022 Global Stakeholders Consultation (6) - Global Carbon Council No comments were received during the GSC period.
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners)	Infinite Environmental Solution LLP On behalf of Waaree PV Technologies Pvt. Ltd.
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Mr. Jimmy Sah Infinite Environmental Solution LLP 214-215, Milinda Manor, Opp. Next Treasure Island, RNT Marg, Indore, Madhya Pradesh, India-452001 Email: jimmy@infisolutions.org Tel: +91 9644130460
Country where project is located	India
GPS coordinates of the Project site(s)	**Latitude (N)**: 10°51'33.9" N 10.8594 N **Longitude (E)**: 79°49'06.7" E 79.8185 E
Applied methodologies (approved methodologies of GCC or CDM can be used)	CDM approved consolidated Methodology - AMS-I.D. “Grid connected renewable electricity generation” (Version 18)
GHG Sectoral scopes linked to the applied methodologies	GHG-SS # 1 (Energy (renewable/non-renewable sources)
Project Verification Criteria: Mandatory requirements to be assessed	☒ ISO 14064-2, ISO 14064-3 ☒ GCC Rules and Requirements ☒ Applicable Approved Methodology

[3] GCC Project Verifier shall conduct Project Verification for all project types except B2.

	☒ Applicable Legal requirements /rules of host country ☒ National Sustainable Development Criteria (if any) ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Additionality ☒ Emission Reduction calculations ☒ Monitoring Plan ☒ No GHG Double Counting ☒ Local Stakeholder Consultation Process ☒ Global Stakeholder Consultation Process ☒ United Nations Sustainable Development Goals (Goal No 13-Climate Change) ☐ Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☒ Social Safeguards Standard do-no-harm criteria ☒ United Nations Sustainable Development Goals (in additional to SDG 13) ☒ CORSIA requirements
Project Verifier's Confirmation: The *GCC Project Verifier* has verified the GCC project activity and therefore confirms the following:	The GCC Project Verifier [LGAI Technological Center S.A.], certifies the following with respect to the GCC Project Activity [10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India]. ☒ The Project Owner has correctly described the Project Activity in the Project Submission Form (version 4.0, dated *27/07/2023*) including the applicability of the approved methodology [*CDM approved consolidated Methodology - AMS-I.D. "Grid connected renewable electricity generation" (Version 18.0)*] and meets the methodology applicability conditions and is expected to achieve the forecasted real and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reductions estimates correctly and conservatively. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated *[*17,946 tCO_2/year*]* tCO_{2e}, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3. ☒ The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental

	and Social Safeguards Standard, and is likely to achieve the following labels: ☒ Environmental No-net-harm Label (**E⁺**) ☒ Social No-net-harm Label (**S⁺**) ☒ The Project Activity is likely to contribute to the achievement of United Nations Sustainability Development Goals (SDGs), complies with the Project Sustainability Standard, and contributes to achieving a total of *[03]* SDGs, with the following[4] SDG certification label (**SDG⁺**): ☐ Bronze SDG Label ☒ Silver SDG Label ☐ Gold SDG Label ☐ Platinum SDG Label ☐ Diamond SDG Label ☒ The Project Activity complies with all the applicable GCC rules[5] and therefore recommends GCC Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	Version 02.0 Date: 27/07/2023 Ref. No. A+SH_SYST_TQC_GCC_VAL_42122
Name of the authorised personnel of GCC Project Verifier and his/her signature with date	Agustín Calle de Miguel Technical Manager Date 31/07/2023

[4] SDG Certification labels: Bronze label (1 star): by achieving 2 out of 17 SDGs; Silver label (2 star): by achieving 3 out of 17 SDGs; Gold label (3 star): by achieving 4 out of 17 SDGs; Platinum label (4 star): by achieving 5 out of 17 SDGs; and Diamond label (5 star): by achieving more than 5 out of 17 SDGs.

[5] "GCC Rules" are defined in Project Definitions and refers to the rules and requirements set out by the GCC program related to GHG emission reductions and its voluntary certification labels and are available on the GCC Program's public website: https://www.globalcarboncouncil.com/resource-centre.html

1. PROJECT VERIFICATION REPORT

Section A. Executive summary

Waaree PV Technologies Pvt. Ltd. has commissioned LGAI Technological Center S.A. to perform a verification of "10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India" (hereafter referred to as the project activity) in the state Puducherry, India. This verification report summarizes the findings of the verification of the project, performed based on GCC Project Verification Standard v.3.1 /3/.

Waaree PV Technologies Pvt. Ltd. has set up solar power project at Polagam village and Karaikal District of Puducherry state of India with total capacity of 10 MW_{AC}. The main purpose of the project activity is to generate electrical energy through sustainable means using solar energy and sale to third parties / Off takers via respective state utilities under Long Term Open Access as per applicable JERC[6] (Joint Electricity Regulatory Commission) regulations and open access procedures. The generated green electricity will contribute to climate change mitigation efforts. This project activity is a small-scale solar power project. The Location details of each project locations with its commissioning/15/ dates are as below: -

Sl. No	Project Investors (Legal Owners)	Capacity (MW)	Capacity (DC)	Commissioning Date (COD) of PA	Geo-Coordinates (Decimals)	Geo-Coordinates (DMS)	State	Use of electricity
1	Waaree PV Technologies Pvt. Ltd.	10 MW_{AC}	14.25 MWp	24/03/2021	10.8594° N 79.8185° E	10°51'33.9"N 79°49'06.7"E	Pudu-cherry	LTOA[7] to Chemfer Alkalis limited

In Section A.2 of PSF/10/, Project Owners has mentioned GPS coordinate for project site, Same has been verified by assessment team during Remote audit and Geo-tagged image of project activity.

Scope of Verification:

The verification scope is defined as an independent and objective review of the project PSF/10/, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against all applicable GCC criteria including the approved baseline and monitoring methodology AMS I.D Version 18.0/12/. The verification was based on the requirements in the Project Verification Standard, v.3.1/03/ for the project activity and GCC requirement. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PSF/10/.

The verification scope is given as a thorough independent and objective assessment of the project design including especially the correct application of the methodology/12/, the project's baseline

[6] Microsoft Word - 1518gi (jercuts.gov.in)
[7] Long Term Open Access

study, additionality justification, local stakeholder commenting process, environmental impacts and monitoring plan, which are included in the PSF/10/and other relevant supporting documents, to ensure that the GCC project activity meets all relevant and applicable GCC criteria.

Verification Process:

The verification of the project consisted of the following steps:

- Publication of the project PSF (Project submission Form) /02/.
- Desk review of the PSF/10/ and supporting documents submitted by the project owner
- Remote assessment, background investigation and follow-up interviews with personnel of the project owner and its representatives.
- Draft verification reporting based on the audit findings and desk review of the PSF/10/.
- Resolution of corrective actions (if any).
- Final Verification report reporting based on the closure of corrective actions
- Technical review of the final verification opinion along with other documents by the independent competent technical review team,
- Final approval of the final verification opinion.

Appointment of the verification team:

According to the sectoral scope / technical area and experience in the sectoral or national business environment, LGAI Technological Center, S.A. (Applus+ Certification) has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of LGAI Technological Center, S.A. (Applus+ Certification).

The composition of audit team shall be approved by the LGAI Technological Center, S.A. (Applus+ Certification) ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA)
- Auditor (A) / Auditor in Training (AiT)
- Technical Expert (TE)
- Technical Reviewer (TR)

The sectoral scope / technical area knowledge linked to the applied methodology/ies/12/ shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Atul Takarkhede	LA/TE	Yes	Yes	Yes	Yes
Mr. David Lubanga	TR	Yes	Yes	Yes	NA

The complete list of CVs is included as Appendix 2 of this report.

Conclusion:

The review of the PSF/10/, supporting documentation and subsequent follow-up actions (remote audit and interviews) have provided LGAI Technological Center, S.A. (Applus+ Certification) with sufficient evidence to determine the fulfilment of stated criteria. LGAI Technological Center, S.A. (Applus+ Certification) is of the opinion that the project activity "10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India" as described in the final PSF/10/meets all relevant requirements of GCC and host country (legal requirements for producing power) criteria and has correctly applied the methodology AMS I.D Version 18.0./12/ Additionally, the project activity has fulfilled all the requirements related to local stakeholder process, Environmental Safeguards (E+ label), CORSIA Plus , Social Safeguards (S+ label) and has forecasted to contribute to 03 UN SDGs. Therefore, the project is being recommended to GCC Steering committee for request for registration.

Section B. Project Verification team, technical reviewer and approver

>>

B.1. Project Verification team

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Project Verification findings
1.	Team Leader	O R	Takarkhede	Atul	True Quality Certification Private Limited	Yes	No	Yes	Yes

B.2. Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name of central or other office of GCC Project Verifier or outsourced entity)
1.	Technical reviewer	EI	Lubanga	David	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustin	Applus+ Certification

Section C. Means of Project Verification

C.1. Desk/document review

The details of the document observed during the verification process are listed below in Appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection: DD/MM/YYYY to DD/MM/YYYY				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	-	-	-	-
…	-	-	-	-

In accordance with GCC Verification standard v.3.1– paragraph 28, a site visit is not mandatory for the verification, as the estimated annual average of ERs is below 100,000 tCO_2e and there is no pre-project information that is relevant to the requirements for registration of the project activity and may not be traceable after the registration since the project has been operational since 24/03/2021.

Nevertheless, the team leader adopted alternative means in order to assure that all features are in accordance with PSF and undertake independent checks. The verifier team has conducted remote audit by mean of interviewing of operators, project owners & local people on sites for all the individual SPVs. The verification team also requested livestream of project sites to check their implementation as well as technical details. The technical expert received all necessary information as documentary evidence to show the facilities and equipment (e.g., Commissioning Certificate, Power Purchase Agreement, PV technical Specification, As-Built Plant layout, DPR extract, etc.) and team leader's notes necessary to have a clear and precise understanding of the project activity, which has been considered sufficient for the purpose of the present verification.

Therefore, for reasons provided above, and in line with verification standards v.3.1, the verification team conducted the verification for this project using alternative means as defined in the GCC Project verification standards.

The verification team applied standard auditing techniques while verifying the project details, as discussed below. Alternative means applied: Following alternative means have been used to verify the project details:

1. Interview with the Project Owner and Site in-charge confirming the implementation, project details such as installed capacity, location, monitoring, emission reduction calculation.

2. Legal requirements;

3. Employment records;

4. Training records and SDGs requirements;

5. Review of Other Documentary evidence (ER spreadsheet, IRR sheet, project documents, etc.)

C.3. Interviews

No.	**Interview**			**Date**	**Subject**	**Team member**
	Last name	**First name**	**Affiliation**			

1.	Kumar	Mr. Yashwanth	Site-in-Charge, Site	02/03/2023 (Remote)	Project Implementation status, Project Boundary Methodology/12/, Eligibility criteria Host country Requirements, Monitoring Plan Project activity start date and Crediting period Roles and responsibilities of the project owner Baseline Assumptions Emission reduction calculations Additionality Training to the Monitoring personnel Legal Ownership of the project activity, Double counting/09/ of the carbon credits of the project activity E+, S+, SDG+ and CORSIA aspects as per the PSF/10/and GCC requirements geographical location and project boundaries, project capacities applicable legal compliances	Dr. Atul Takarkhede
2	Verma	Mr. Mayank	Senior Engineer			
3	K	Mr. Dayamoorthy	Senior Engineer			
4	D	Mr. Ponvannan	Local Stakeholder, Polagam village	02/03/2023 (Remote)	Local Stakeholder Consultation/18/, Local employment/19/, E+, S+, SDG+ and CORSIA aspects as per the PSF and GCC requirements, Project Implementation status and benefits from the project activity, Grievances	
5	-	Mr. Adavan				
6	Bele	Mr. Gavin				
7	-	Mr. Irtilam				

C.4. Sampling approach

>> The verification team did not apply any sampling approach for the project activity. The Remote audit was conducted for this project.

C.5. Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	Applicable to Project Types	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)				
Identification and Eligibility of project type	A_1, A_2, B_1, B_2	-	-	-

General description of project activity	A_1, A_2, B_1, B_2	CL 01	CAR 01	-
Application and selection of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	-	
- Application of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	CAR 02	-
- Deviation from methodology and/or methodological tool	A_1, A_2, B_1, B_2	CL 02	-	-
- Clarification on applicability of methodology, tool and/or standardized baseline	A_1, A_2, B_1, B_2	-	-	
- Project boundary, sources and GHGs	A_1, A_2, B_1, B_2	-	-	-
- Baseline scenario	A_1, A_2, B_1, B_2	-	-	-
- Demonstration of additionality including the Legal Requirements test	A_1, A_2, B_1, B_2	--	CAR 06	-
- Estimation of emission reductions or net anthropogenic removals	A_1, A_2, B_1, B_2	-	CAR 03	-
- Monitoring plan	A_1, A_2, B_1, B_2	-	CAR 04	-
Start date, crediting period and duration	A_1, A_2, B_1, B_2	-	CAR 05	-
Environmental impacts	A_1, A_2, B_1, B_2	-		-
Local stakeholder consultation	A_1, A_2, B_1	-	CAR 07	-
Approval & Authorization- Host Country Clearance	A_1, A_2, B_1, B_2	-	-	FAR 01
Project Owner- Identification and communication	A_1, A_2, B_1, B_2	-	-	-
Global stakeholder consultation	A_1, A_2, B_1	-	-	-
Others (please specify)	A_1, A_2, B_1, B_2	-	-	-
VOLUNTARY CERTIFICATION LABELS				
Environmental Safeguards (E^+)	A_1, A_2, B_1	-	-	-
Social Safeguards (S^+)	A_1, A_2, B_1	-	CAR 08	-
Sustainable development Goals (SDG^+)	A_1, A_2, B_1	-	-	-
Authorization on Double Counting from Host Country (only for CORSIA)	A_1, A_2, B_1	-	-	FAR 01
CORSIA Eligibility (C^+)		-	-	FAR 01
Total		02	08	01

Section D. Project Verification findings

D.1. Identification and eligibility of project type

Means of Project Verification	Assessment team checked the applicable GCC criteria regarding project type definition for project activity. The project meets the requirements outlined in Type A2 (Sub-Type 1) category as per the GCC Project standard /2/ and Clarification No.01 /7/. This categorization is deemed acceptable as the project has not been registered under any GHG (Greenhouse Gas) program. Furthermore, the project operations began on 24/03/2021, which aligns with the commissioning date of the project activity. The verification process has confirmed the validity of the commissioning document/15/ associated with the project activity, Same is confirmed by verification team. • It complies with all the applicable host country legal requirements, and it ensures compliance with legal requirements. The project is a renewable energy project activity and meets the host country requirements of sustainable development criteria. PO (Project Owner) Executed power purchase agreement with Chemfab Alkalis Limited /17/[8] under Long term open access sell, prior to start date of the commissioning date of the plant which is in line with the

[8]Project owner has signed Power Supply agreement with Chemfab Alkalis Limited under Long Term open access (LTOA) sell.

<table>
<tr><td></td><td>paragraph 16 (b) of Project Standard Version 3.1, the project owner has demonstrated that required approvals and authorizations are available or being processed prior to the start of commercial operations of the project activity which is acceptable to the verification team.</td></tr>
<tr><td>Findings</td><td>No findings raised during Verification.</td></tr>
<tr><td>Conclusion</td><td>The project activity was found eligible as per the requirements under section 4 of the GCC Project Standard /02/ which was verified from the documents issued by the respective state utility. Further, found sub type of project activity (i.e., Sub-Type 1) in line with the Clarification No. 1 /07/ issued by GCC.

Verification team cross checked the other GHG programmes like Clean Development Mechanism (CDM) Registry/23/, VERRA Registry/24/, Gold Standard (GS) Registry/25/, and voluntary non-GHG Programs like I-REC Renewable Energy Certificate (REC)/26/ Mechanism in India for the information regarding the consistency of the title of the project activity, GPS coordinates, Legal Ownership of the Project activity and confirmed that the project was not submitted or registered under any other GHG programmes and non-voluntary non-GHG Programs. Hence,

• the project is applicable for A2 type project activity. Project also meets the special eligibility criteria as:

• It is not required by a legal mandate and does not implement a legally enforced mandate as confirmed from the white category.

• As per Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India.

• The project also delivers real, measurable and additional emission reduction of 179,469 tCO2e over the total 10 years crediting period and 17,946 tCO_2e annually (average value over the crediting period) as compared to the baseline scenario).

Project applies an approved GCC applied methodology AMS I.D version 18.0/13/.

Further, Verifiers team confirmed that the project activity complies following point as per para 14 (C) of GCC project standards v.3.1/02/: -

<table>
<tr><th>S.no</th><th>GCC Rules</th><th>Assessment</th></tr>
<tr><td>1</td><td>(i) GHG emission reductions (mandatory requirement);</td><td>Assessment team verified the estimated emission reduction i.e., 17,946 tCO_2e / annum via emission reduction calculation sheet, CEA database v.17.0 /33/, DPR /20/, Commissioning certificate/15/. generation values are also cross checked via copies of JMRs/monthly /21/ and sales invoices/32/ raised to third party via state grid.</td></tr>
<tr><td>2</td><td>(ii) Contributions to the UN SDGs (SDG+ label)</td><td>Project owner fulfilling total 03 SDGs via project activity, Same is verified by</td></tr>
</table>
</td></tr>
</table>

		(voluntary requirement for selection, but mandatory if selected);	the assessment team employments records/19/, training records and HR polices and records/19/.
	3	(iii) Do-no-net-harm Environmental requirements (E+ label) (voluntary requirement for selection, but mandatory if selected);	Project activity **scoring +2** point under E+ labelling /04/, Same is verified by the assessment team via ER calculation sheet /11/.
	4	(iv) Do-no-net-harm requirements for Society (S+ label) (voluntary requirement for selection, but mandatory of selected); and	Project activity **scoring +2** point under S+ labelling /04/, Same is verified by the assessment team via employments records/18/ and term jobs (long and short term), training records (safety and skill-based training) and HR polices and records/19/.
	5	(v) Submission of Host Country Attestation on Double Counting as and when required by CORSIA (mandatory requirement for projects that intend to use ACCs for CORSIA).	During assessment, verifiers team observed project activity qualified for the CORSIA requirement. However, PO will submit the Host Country Attestation on Double Counting/09/ along with the submission for the issuance of ACC post 31st December 2020. FAR has also raised by assessment team for the same.

D.2. General description of project activity

Means of Project Verification	Waaree PV Technologies Private Limited is responsible for the installation of 10 MW_{AC} Solar Photovoltaic (SPV) Panels as part of the project. The electricity generated from this project activity is exported to the Indian grid in India through Puducherry state electricity board a power purchase agreement /17/ signed with the third party under long term open access[9]. By doing so, the project displaces electricity from the regional grid electricity distribution system, which is primarily generated by fossil fuel-based power plants. The project utilizes poly crystalline cells type of panels along with associated connection boxes, inverters, transformers, and other field equipment. As a result, the project activity generates an average of 19,287 MWh/year of electricity and displaces approximately 17,946 tCO_2e/year. In the absence of the project, the equivalent amount of electricity delivered to the grid would have been generated by the operation of grid-connected power plants, including the addition of new generation sources into the grid. In the baseline scenario, the main emission source is the power plants connected to the grid, and the primary greenhouse gas

[9] jercuts.gov.in/writereaddata/UploadFile/openaccess_1908.pdf

involved is CO_2. The specific location details of each project location are provided in section A of this report.

The project uses 320 Wp, 325 Wp, 330 Wp, 335 Wp, 380 Wp, 385 Wp, 390 Wp poly crystalline cells type of panels of and associated connection boxes, Inverters, other field equipment's in all the project premise for complete information on technical specification provided in PSF sin section A.3 same has been verified and found correct. The technical details have been verified during remote audit, supporting evidences /16/ and found in order. The project owner declared in the PSF the lifetime of the project activity is 25 Years as guaranteed by the suppliers of PV panels of the project activity and same has been verified in the technical data sheet / 16/ provided by the project owner and found acceptable. However, the Project owner have fixed crediting period 10 years which is accordance GCC project manual version 03.1 paragraph 51.

In addition to generating emission reductions the project activity also qualifies for other voluntary certification labels: -

Voluntary Labels	Applied by the project	Score/label
Achieving the United Nations Sustainable Developmental Goals (SDG+)	Yes	03 (Silver)
Environmental No-net harm (E+)	Yes	+02
Social No-Net harms (S+)	Yes	+02
CORSIA (C+)	Yes	PO will submit the Host Country Attestation on Double Counting/9 / along with the submission for the issuance of ACC post 31st December 2020. FAR has also raised by assessment team for the same.

The project activity described as Type A2 (Sub-Type 1) and applied AMS-I.D.: Grid connected renewable electricity generation -- Version 18.0 falls into the small-scale category as per CDM methodology/9/.

In the baseline scenario the main source of emission was found to be CO_2 as electricity was generated mainly through fossil-fuel based power plants whereas in project scenario the electricity is generated by the Solar Power plant thereby reducing the CO2 emissions. Thus, non-application of GWP in this project activity was found to be acceptable as the project boundary does not include any of the GHG emissions in the project scenario as per the applied methodology.

The description in the PSF includes sufficient details and provides clarity on the project activity Further verification team cross checked the other GHG programmes like Clean Development Mechanism (CDM) Registry /39/, VERRA Registry /40/, Gold Standard (GS) Registry /41/, and voluntary non-GHG Programs like I-REC/43/ Renewable Energy Certificate (REC) Mechanism /42/ ,Legal Ownership /38/, GPS coordinates (verified through Google Maps), in India for the information regarding the consistency of the title of the project activity , GPS coordinates, Legal Ownership of the Project activity to determine if the project was part of any other GHG Program

	prior to commencement of this verification. It was confirmed that the involved project owners have not submitted the project under any other GHG program apart from GCC.
Findings	CL 01 and CAR 01 raised in this context and closed successfully. Please refer to the appendix 4 for further details.
Conclusion	The project description was verified based on the review of documents. Based on the review of documents and by means of onsite verification the details provided in the PSF/10/ is found acceptable and complete.

D.3. Application and selection of methodologies and standardized baselines

D.3.1 Application of methodology and standardized baselines

Means of Project Verification

Project owner has applied CDM methodology – AMS I.D, version 18.0 and no standardized baseline is used. Applicability of the methodology is verified as below;

Applicability criterion as per AMS I.D Version18.0	Applicability to the Project Activity	Verifier Assessment
This category comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass, • Supplying electricity to a national or a regional grid; or • Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling	The project activity involves the installation of a green-field solar project for renewable electricity generation. It would supply electricity to an identified consumer facility via national/regional grid through a contractual arrangement. Hence it satisfies this applicability criteria.	The project involves installation of 10 MW Solar Power Plant by Waaree PV Technologies Pvt. Ltd. where electricity was generated and delivered to third party by Indian grid through Long Term Open Access, there by displacing electricity from the regional grid electricity distribution system generated by fossil fuel-based power plants. Thus, the project activity generated average of 19,287 MWh/year electricity and displacing 17,946 tCO2e annually over the crediting period. This was verified through the documents submitted by the Project owner and confirmed the requirement.
Illustration of respective situations under which each of the methodology (AMS- I.D., AMS-I.F. and AMS-I.A.) applies is included in the appendix.	The project activity would supply electricity to the Indian grid; hence it satisfies this applicability criteria. The demonstration as per the table 1 of the appendix of the methodology, AMS I.D is provided below.	This is the renewable power generation activity and the generated electricity from the project activity are supplied to the Indian Grid through a power purchase agreement with state utility this resembles the scenario listed at Sl. no. 1 of the table 1 and hence the methodology, AMS-I. D is applied appropriately

		This methodology is applicable to project activities that (a) Install a Greenfield plant; (b) Involve a capacity addition in (an) existing plant(s); (c) Involve a retrofit of (an) existing plant(s); (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or Involve a replacement of (an) existingplant(s).	The project activity involves installation of a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant). Hence, this applicability criterion is satisfied.	This is the solar power project, where there was no renewable power plant operating prior to implementing the project activity (Greenfield plant). This was verified by the verification team by means of remote audit and documents/13/17/ verification.	
		Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: **a.** The project activity is implemented in an existing reservoir with no change in the volume of reservoir; **b.** The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the projectactivity, as per definitions given in the project emissions section, is greater than 4 W/m2. **c.** The project activity results in new reservoirs and the power density of the power plant, as per definitions given inthe project emissions section, is greater than 4 W/m^2.	The project activity is a solar power project. Hence this criterion is not applicable to the project activity.	This is not applicable as the project activity is the installation of solar PV panels to generate electricity.	

		If the unit added has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of15 MW for a small-scale CDM project activityapplies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	The project activity is a 10 MW solar based renewable electricity generation and has no non-renewable components or provision for future addition of a co-fired fossil fuel system. Thus, the project activity meets the applicability condition.	The project activity does not involve with co-generation. Hence it is not applicable.	
		Combined heat and power (co- generation) systems are not eligible under this category.	The project activity does not involve cogeneration. Hence it satisfies the applicability criteria.	The project activity does not involve with co-generation. Hence it is not applicable.	
		In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	This condition is not applicable to the project activity as it is a greenfield project activity and does involve the addition of renewable energy generation units at an existing renewable power generation facility.	No capacity addition in the existing renewable plant. This the new installation of Solar Power Plant which was verified and confirmed through onsite verification and interviewed withproject owner and their representatives. Hence it is not applicable.	
		In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	This condition is not applicable to the project activity as it is not a modification/ retrofit measure in an existing power plant	There is not retrofit or replacement Hence it is not applicable.	
		In the case of landfill gas, waste gas, wastewater treatment and agro-industries projects, recovered methane emissions are eligible under a relevant Type III category. If the recovered methane is used for electricity generation for supply to a grid, then the baseline for the electricity component shall be in accordance with procedure prescribed under this methodology. If the recovered methane is used	This condition is not applicable to the project as this is solar based renewable energy project.	This is not a landfill gas, waste gas, wastewater treatment and agro-industries projects. Hence it is not applicable.	

for heat generation or cogeneration other applicable Type-I methodologies such as "AMS-I.C.: Thermal energy production with or without electricity" shall be explored.		
In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.	This condition is not applicable to the project as this is solar based renewable energy project.	This is solar power project, and it is not applicable.

TOOL 07: Tool to calculate the emission factor for an electricity systemVersion 7.0		
Applicability criterion	**Applicability to this Project Activity**	**Assessment**
This tool 07 /13/ may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g., demand-side energy efficiency projects).	The project activity is a greenfield solar power generation plant and hence, according to the applied methodology, the baseline scenario is 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, as reflected in the combined margin (CM) calculations described in "TOOL07: Tool to calculate the emission factor for an electricity system" V7.0	The project involves electricity generation through solar power plant where electricity was generated and delivered to the national grid. Thus, eligibility criteria were found to be met.

	Under this tool/13/, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool/13/ are available to the project participants, i.e., option II a and option II b. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	Since the project activity is grid connected solar power project, this condition is applicable, and the emission factor has been calculated accordingly	The project activity involves the electricity generation through a grid connected solar power plant, which was verified through PPA issued to PO/16/. The emission factor has been calculated through the CEA database/34/, which has used the application of tool 07/13/ to calculate the grid emission factor for India, which is found to be appropriate. PO has used the latest available CEA database (CO2 Baseline Database for Indian Power Sector, Version 18.0, December 2022 /34/). The detailsregarding the emission factor havebeen discussed in section D.3.4 of this report.
	In case of CDM projects the tool/13/ is not applicable if the project electricity system is located partially or totally in an Annex I country.	The project activity is located in India, a non-Annex I country. Therefore, this criterion is not applicable for the project activity.	The project activity is located in Indiawhich is non-Annex I country. Hence, condition is not applicable.
	Under this tool, the value applied to the CO2 emission factor of biofuels is zero.	The project activity is a grid connected solar power project and therefore, this criterion is not applicable for the project activity	The condition is not applicable as CEA database /34/ does not include any biofuel plant.
	Tool 21: Demonstration of additionality of small-scale project activities version 13.1		

The use of the "Tool/13/ for the demonstration and assessment of additionality" is not mandatory for project participants when proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool/13/.	The Project is not proposing any new methodologies. Hence the use of tool "Demonstration of additionality of small-scale project activities" is mandatory. Ref. to sec B.5 of PSF for details where additionality of the project activity is demonstrated using tool 21 version 13.1.	The project is using CDM approved methodology/12/ AMS I.D version 18.0 and doesn't propose any new methodology. The assessment of additionality has been discussed in detail in section D.3.5 of this report.
Once the additionally tool/13/ is included in an approved methodology/12/, its application by project participants using this methodology/12/ is mandatory.	The project activity is 10 MW solar activity and as per CDM glossary[10] Project activities up to 5 megawatts comes under microscale project activity so the condition is not applicable.	The project activity is solar power plant hence this this condition is not applicable.

TOOL 27. Investment analysis[11] Version 12.0 is verified as below:

TOOL 27: Investment analysis Version 12.0	Applicability to this Project Activity	Verification by assessment team
This methodological tool is applicable to project activities that apply the methodological tool "Tool for the demonstration and assessment of additionality", the methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality", the guidelines "Non-binding best practice examples to demonstrate additionality for SSC project activities", or baseline and monitoring methodologies that use the investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.	As "Tool for the demonstration and assessment of additionality" is applied, TOOL 27 is also applicable and complied with for investment analysis for the demonstration of additionality. Kindly refer to section B.5 of PSF for details	This project activity involves demonstration and assessment of additionality tool is applied. Thus, the applicability criteria were found to be met.
In case the applied approved baseline and monitoring methodology contains requirements for the investment analysis that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.	The applied approved baseline and monitoring methodology does not contain requirements for the investment analysis that are different from those described in this methodological tool. Hence Not Applicable.	Not applicable as Requirement regarding investment analysis not provided in applied approved baseline and monitoring methodology.

[10] https://cdm.unfccc.int/Reference/Guidclarif/glos_CDM.pdf
[11] EB116_repan02_TOOL27_ver12 (unfccc.int)

	Demonstration of debundling as per Tool 20: Assessment of debundling for small-scale project activity", version 04.0 and GCC Clarification No. 01, V1.2 – 2022: The step wise approach as per Tool 20 is provided in the PSF/10/. From the details given in the PSF it was evident that the legal owner does not register or applied for registration under any of the GHG schemes except this project activity. Hence the project activity is not a debundled component of a large project activity as per applicable TOOL. The same has been crosschecked with publically available resources i.e., GCC, CDM, VERRA, GS registries and found the information provided by the project owner is correct and acceptable. Also, the project is the installation of solar power plant (same technology) which was installed and operated by the single legal owner (Waaree PV Technologies Pvt. Ltd.) and applied the same baseline, additionality determination for the project activity. As Per GCC Clarification No. 01, V1.2 – 2022 the project has been considered as single project. The same has been verified with documents like power purchase agreements /16/ and commissioning certificates/15/ of the project installation. The verification team confirms that; It has critically assessed each applicability condition listed in the selected methodology and the relevant information contained in the PSF against these criteria. The selected methodology and tools for the project activity is applicable.
Findings	CL 02 and CAR 02 was raised and closed successfully. Please refer to the appendix 4 for further details.
Conclusion	The verification team confirms that approved methodology: AMS.I. D- Grid connected renewable electricity generation" (Version 18.0) /9/ is applicable to the PSF/10/. All applicability conditions of the applied methodology and applicable Tools are being met and the PSF/10/ are in line with all the requirements indicated in the methodology. Related eligibility criteria with respect to the applicability of the methodologies have been established and met by the PSF of the GCC Project activity.

D.3.2 Clarification on applicability of methodology, tool and/or standardized baseline

Means of Project Verification	Since the applicability of methodology was found to be fulfilled, furtherclarification to the methodology were not required.
Findings	No finding was raised.
Conclusion	Since the applicability of methodology was found to be fulfilled, furtherclarification to the methodology were not required

D.3.3 Project boundary, sources and GHGs

Means of Project Verification	As per the applied methodology AMS-I. D version 18.0, the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project power plant is connected to. The components of the project boundary mentioned in the PSF were found to be in compliance with para 18 of the applied methodology. The verification team conducted desk review of the implemented project to confirm the appropriateness of the project boundary identified. The verification team confirmed that all GHG sources required by the methodology have been included within the project boundary. It was assessed that no emission sources related to project activity will cause any deviation from the applicability of the methodology or accuracy of the emission reductions. The project boundary is clearly depicted with the help of a pictorial depiction in section B.3 of the PSF and duly verified by the verification team via commissioning

	certificates of the project activity & power purchase agreement between project owner and state electricity utility which is found to be acceptable and appropriate.
Findings	No Findings were Raised.
Conclusion	• The project verification team was able to assess that complete information regarding the project boundary has been provided in PSF/10/ and could be assured from the line diagram. • The project verification team confirms that the identified boundary, selected emissions sources are justified for the project activity.

D.3.4 Baseline scenario

Means of Project Verification	The baseline scenario, in accordance with paragraph 19 of the applied methodology, specified the baseline scenario of the project activity. The baseline scenario is that 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 project activity involved setting up of Solar plant to harness the power of sunlight to produce electricity and supply to the grid. In the absence of the project activity, the equivalent amount of power would have been supplied by the national grid, which is fed mainly by fossil fuel fired plants and by the addition of new generation sources. Hence, the baseline for the project activityis the equivalent amount of power from the Indian grid. The relevant National and/or sectoral policies, regulations and circumstances such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector have been taken into account in the identification of the baseline scenario such as: • Electricity Act 2003 /22/ • National Electricity policy 2005/22/ • The Electricity (Supply) Act, 1948 /35/ • The Electricity Regulation Commission Act, 1998 /34/ • Schedule 1 of Ministry of Environmental and Forest notification /37/ As per paragraph 22 of the applied methodology, baseline emissions include only CO_2 emissions from electricity generation in power plants that are displaced due to the project activity. The baseline emissions are the product ofelectrical energy baseline expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. As per paragraph 23 of the applied methodology, the grid emission factor is calculatedin a transparent and conservative manner as follows: combined margin (CM), consisting of the combination of operatingmargin (OM) and build margin (BM) according to the procedures prescribedin the “Tool to calculate the emission factor for an electricity system”; or OR a. The weighted average emissions (in t CO_2/MWh) of the current generationmix. The data of the year in which project generation occurs must be used. The Project Owner has selected option a for calculation of emission factor for the

project activity which is appropriate as per methodological requirement.

Determination of Grid Emission Factor ($EF_{grid,y}$)

The project owner used the "Tool to calculate the emission factor for an electricity system" to determine the emission coefficient as per 23 (a) of the indicative simplified baseline and monitoring methodologies for selected smallscale CDM project activity categories I.D./Version 18 methodology. And "Tool to calculate the emission factor for an electricity system" states that 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 additionof new generation sources, as reflected in the combined margin (CM) calculations. In this case the Combined Margin (weighted average of Simple Operating Margin and Build Margin) is estimated based on three years average(2018-19, 2019-20, 2020-21) of Simple Operating Margin and Build Margin of current year (2020-21) is in line with steps of "Tool to calculate the emission factor for an electricity system". Both the value of Simple Operating Margin andBuild Margin are selected under ex-ante approach. The grid boundary w.r.t the connected grid is INDIAN grid.

In accordance with "Tool to calculate the emission factor for an electricity system", 'Dispatch Data Analysis' is the first methodological choice out of fouroptions of calculating OM emission factor. Nevertheless the "Dispatch data analysis operating margin" is ruled out in India due to lack of necessary dispatch data of the grids. The same fact is also considered by the Central Electricity Authority /26/ (Ref the user guide for CO2 Baseline Database for theIndian Power Sector version 17.0, October 2021).

Out of other 3 options of calculating OM Project Owner have rightly selected simple OM emission factor calculation as the share of low cost / must run resources of the selected grid over the five most recent years (2016-17,2017- 18,2018-19, 2019-20, 2020-21) which is less than 50% of the gross grid generation. For wind and solar projects, TOOL 07 "Tool to calculate the emission factor for an electricity system" allows the usage of the default weights are as follows:wOM =0.75 and wBM = 0.25. Using the above values, the combined margin emission factor is valued at 0.9305 tCO_2/MWh.

The calculation of $EF_{grid,y}$ is current and publicly available and published by the Central Electricity Authority on its web-site/26/. The verification team is convinced of the result of the emission coefficient calculation. It is deemed to be adequate and transparent.

The baseline scenario in the PSF/10/ is reported as the supply of electricity toIndian Grid by the project activity would have otherwise been generated by theoperation of grid-connected power plants. The baseline scenario applied in the PSF was compared with the requirements of the baseline described in the applied methodology and found consistent.

S.no.	Ex-ante Parameter	Assessment
1.	EF grid,OM,y, Operating margin CO2 emission factor for the project electricitysystem in year y	PO has derived OM based on the generation data from the last three years. The data was source from the Baseline CO2 Emission database/33/, published by CEA, Government of Indiawhich was found to be appropriate. Theapplied value by the PO is 0.9522 tCO_2 /MWh.

	2.	$EF_{grid,BM,y}$, Build margin CO2 emission factor for the project electricity system in year y	PO has derived BM based on the generation data from the last three years. The data was source from the Baseline CO2 Emission database/34/, published by CEA, Government of Indiawhich was found to be appropriate. Theapplied value by the PO is 0.8653 tCO2/MWh.
	3.	$EF_{grid,CM,y}$, Combined margin CO2 emission factor for the project electricitysystem in year y	PO has derived CM based on the weighted average of OM and BM. The weight of OM and BM taken was 0.75 and 0.25 which was in-line with the applied tool/14/. The data was source from the Baseline CO2 Emission database/34/, published by CEA, Government of India which was found to be appropriate. The applied value by the PO is 0.9305 tCO_2 /MWh.
Findings	No findings were raised in this section.		
Conclusion	The verification team confirms the following; • All assumptions and data used by the project participants are listed in the PSF/10/, including their references and sources; • All documentation used by project participants as the basis for assumptions and source of data for establishing the baseline scenario is correctly quoted and interpreted in the PSF/10/; • The project verification team also concluded that the identified baseline scenario reasonably represents what would occur in the absence of the project activity.		

D.3.5 Demonstration of additionality

Means of Project Verification	The demonstration of additionality under GCC the project activity is required to undergo the following two tests 1. **Legal Requirement test**: The relevant national acts and regulations pertaining to generation of energy in the host country i.e., India are Electricity Act 2003/22/ (May 2007 Amendment) [12], National Electricity Policy 2005 [13]/22/, Integrated Energy Policy 2006/34/, The Electricity Regulation Commission Act, 1998, National Renewable Energy Act 2015, verified by the assessment team. It was confirmed that there are no enforced laws, statutes, regulations, court orders, environmental-mitigation agreements, permitting conditions or other legallybinding mandates requiring its implementation, or requiring the implementation of a similar technology/measure that would achieve equivalent levels of GHG emission reductions. The assessment team assessed the relevant regulations of the host county to confirm the requirements and also confirmed based on the local expertise by the verification team the project is not implemented to meet any legal requirement. b) **Additionality Tests:** As per the applied methodology AMS I.D Version 18.0, additionality of the following project activity is demonstrated and assessed by the latest version of Tool 21: Tool for Demonstration of additionality of small-scale project activities, Version 13.1. The PO has adopted the stepwise approach for demonstrating and assessing the additionality of the project activity as follows: Project was envisaged for capacity of 10 MWac in district of Puducherry state of India

[12] https://cercind.gov.in/Act-with-amendment.pdf
[13] https://powermin.gov.in/en/content/national-electricity-policy

	i.e., continuously contributing towards emission reduction. GCC PSF for this project activity was web-hosted for global stakeholder's consultation from 01/08/2022 to 15/08/2022. Start date of the Project is 24/03/2021/15/ which is the commissioning date of project activity. In line with GCC Project Standard, version 03.1., the additionality of the Project activity is ascertained in line with the applicable guidance from the GCC. The demonstration of additionality for the proposed Project activity is being carried out in accordance with the additionality tool provided by the UNFCCC i.e., "Tool for Demonstration of additionality of small-scale project activities, Version 13.1". The tool provides a stepwise approach to demonstrate additionality which is displayed below: An Additionality Test either based Demonstration of Additionality of Small-scale Project Activities (Ver. 13.1 EB 105 Annex 4), to establish the project additionality, it has to be shown that the project activity would not have occurred anyway due to at least one of the following barriers: • **Investment barrier**: a financially more viable alternative to the project activity would have led to higher emissions; • **Technological barrier**: a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions; • **Barrier due to prevailing practice**: prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions; • **Other barriers**: without the project activity, for another specific reason identified by the project Owner, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher. **Benchmark Estimation** The benchmark of the project activity has been established in accordance with "Investment Analysis[14]" Version 12, Annex 2, EB 116. According to paragraph 15 of these guidelines, the applied benchmark shall be appropriate to the type of IRR calculated. Local commercial lending rates or weighted average costs of capital (WACC) are appropriate benchmarks for a project IRR. Required/expected returns on equity are appropriate benchmarks for an equity IRR. Benchmarks supplied by relevant national authorities are also appropriate. As per Investment Analysis tool 27[15] (Version 12.0), Required/expected returns on project are appropriate benchmarks for project IRR. The Project IRR is considered as the financial indicator and the benchmarks used is cost of project. Hence the benchmarks used are applicable to the project activity and the type of IRR calculation presented. At the time of project submission for validation, the current version of "Tool-27 of Investment Analysis" is 12.0 (EB 116, Annex 2). But at the time of investment decision date Investment Analysis Tool version 8.0[16] was available as per this of default values for cost of equity calculation and the default value as mentioned in version 8.0 is 10.73 % for group 1 project in India. The PO has done the calculation with both the version and have taken the most conservative values out of both the versions. The PO adopts version 12 (latest at the time of validation) for consideration of default values for cost of equity calculation and the default value as mentioned in version 12 is 9.77 % for group 1 project in India is used which is appropriate and

[14] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v12.pdf
[15] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v12.pdf
[16] am-tool-27-v8.pdf (unfccc.int)

more conservative for benchmark calculation for consideration of default values for cost of equity calculation same is found acceptable to assessment team.

In the context of above, project investor has used option (a) "Default Value" for deciding benchmark for this project activity- accepting the fact that the same has been defined by UNFCCC CDM-EB itself, so suitable, credible & appropriate to consider. Methodology deployed for arriving at a suitable value of Benchmark using Default Value has been described below:

- As the proposed project activity generates power utilizing hydro power energy, Group 1 as per para 5 of Appendix of EB 116, Annex 2 has been identified as a suitable category.

- The investment analysis has been carried out in Nominal terms and thus the after-tax Default value as given in Table 1 of Appendix of Annex 2 of EB 116 has been adjusted by adding suitable inflation rate taken from the Reserve Bank of India for the duration of crediting period.

The Cost of Equity has been considered using the "Methodological tool 27: Investment analysis" available at the time of decision making as well as the latest available value. As a conservative approach, the minimum value of benchmark has been considered as calculated using these 2 approaches

Project	**Date of Investment Decision**	**Start / Commissioning date**	**Default Benchmark value**	**Reference of the Investment Analysis Tool**
Waaree PV Technologies Pvt. Ltd.	25/07/2018	24/03/2021	9.77%	Version 12.0

Appendix in EB 116, Annex 02 specifies default value of expected return on equity in real terms for Energy Industries (Group 1) in India = 9.77% (PO referred Methodological Tool Investment analysis version 12.0 for default value as a conservative approach)

The Required return on equity (benchmark) was computed in the following manner:
Nominal Benchmark[17] = {(1+Real Benchmark) x (1+Inflation rate)}-1
Where:
Default value for Real Benchmark = 9.77% (Tool Investment analysis version 12.0)

- Inflation Rate forecast by Reserve Bank of India (RBI) (i.e., Central Bank of India) for India & in case where RBI Inflation forecast was not available, average Inflation rate forecast for India has been sourced from IMF web site.

The project investor has computed the benchmark using the 5 year and 10-year forecast, and the most conservative value is deemed the benchmark for the project activity. This is due to the fact that RBI solely publishes anticipated inflation over the following 5 and 10 years.

Inflation Rate = 4.00 %[18]

Corresponding Benchmark:

[17] As per Fisher Equation, https://en.wikipedia.org/wiki/Fisher_equation
[18] https://www.rbi.org.in/scripts/FS_Overview.aspx?fn=2752

Nominal Benchmark {(1+9.77%) *(1+4.00%)}-1

Nominal Benchmark = 14.16 %

a) Parameters and assumptions used:

The project activity is a renewable source of electricity generation and supplies the electricity to the third parties via INDIAN Electricity grid. The key parameters which determine the Equity IRR of the project activity are project cost, PLF and profitability estimates.

In the revised GCC PSF, the project cost is based on the DPR. The details of the DPR are as below:

Project cost as per the DPR: -

Project	Date of Investment Decision	Project Capacity (MW)	Project Cost (In Million INR)	DPR Date
Waaree PV Technologies Pvt. Ltd.	25/07/2018	10 MW_{ac}	525.00	May 2018

DPR has been submitted to verification team. The DPR was available during decision making and financial profitability of the project was decided based on this DPR. Verification team checked the DPR of the project activity and found that consideration of the project cost in revised GCC PSF is correct and it is in line with Appendix of Methodological tool “Investment Analysis” Version 12 as well as in compliance to GCC Verification Standard. Hence, the project cost consideration is justified. The assessment team checked the actual project cost does not breach the benchmark.

In India, infrastructure projects are generally entitled to a debt equity ratio of 70:30. However, depending on the relationship of the client with the bank, its credit rating and collaterals offered, banks consider higher debt equity ratio also. The debt equity ratio for the project is 70:30. Assessment team checked the CERC order[19] for the respective state regarding ratio of debt and equity which was available at the time of investment decision and found that the ratio of Debt to equity was considered correctly for the present verification condition.

The profitability of the project, which forms the basis for IRR calculation, is based on installed capacity, PLF, electricity tariff, O&M cost, depreciation, and taxation.

b) Assessment of Plant Load Factor (PLF):

PO considered the Plant load factor as per DPR: -

Project	Date of Investment Decision	Project Capacity (MW)	PLF (%) = 3rd party DPR	DPR Date
Waaree PV Technologies Pvt. Ltd.	25/07/2018	10 MWac	22.72%	May 2018

[19] Microsoft Word - CERC_RE-Tariff-Regualtions 2017-20 (cercind.gov.in)

(c) Assessment of Electricity Tariff:

Project	Date of Investment Decision	Project Capacity (MW)	Tariff Rate (as per DPR)	DPR Date
Waaree PV Technologies	25/07/2018	10 MWac	4.40 INR KWh/per unit	May 2018

d) Assessment of O& M cost:

O&M as per Detailed Project Report: -

Project	Date of Investment Decision	Project Capacity (MW)	O&M Cost (In Million) (Without tax)	DPR Date
Waaree PV Technologies	25/07/2018	10 MWac	6.63 INR per MW	May 2018

The DPR has been used in the financial calculation as same was available during decision making and hence applicable. According to Appendix of Methodological tool "Investment Analysis" Version 12, the cost should be based on the input parameters available at the time of decision making and the PO has submitted DPR as supporting for this consideration. Therefore, considering the above assessment, verification team concluded that the O&M cost considered from respective DPR in the computation of financial indicator is in conformity with guidance Appendix of Methodological tool "Investment Analysis" Version 12.

e) Assessment of Tax computation:

The project owner has adopted book depreciation rates as per Schedule XIV of the Companies Act, 1956 for computing book profit and Income Tax Act 1961 stipulated for income tax calculation, which are in conformity with the accepted accounting principles adopted by the company and income tax laws in the host country. The block of assets has been computed for depreciation purpose as per the accepted accounting principles. Tax liability has been calculated as per the income tax rules and the rulings given. In computing the income tax liability, the project developers have considered Tax holiday (u/s 80IA of the Income Tax Act, 1961). Accelerated depreciation on plant and machinery is also sourced from IT act. The tax rates assumed corresponds to the tax rate prevailing at the time of taking decision. Hence, these assumptions are appropriate during decision making context.

(f) Cross checking parameters;

<table>
<tr><th>Name of the parameter</th><th>Verifier's assessment</th></tr>
<tr><td>Project Cost</td><td>The details are given below of project cost analysis below: -
<table>
<tr><th>Project Owner</th><th>Project Capacity (MW)</th><th>Project Cost (In Million)</th><th>Project cost (in Million per MW)</th></tr>
<tr><td>Waaree PV Technologies</td><td>10 MWac</td><td>525.00</td><td>52.5</td></tr>
</table>
The project cost has been considered from DPR and was available at the</td></tr>
</table>

time decision made for the project activity.
The Project Verifier has also checked the actual cost of 10 MWac Puducherry project site from the CA certificate and found that, the reduction in project cost is within 10% range of sensitivity analysis. Since the comparison is done with actual project cost and hence, actual cost is increased, the project activity is additional with actual project cost.

Project Owner	Project Capacity (MW)	Project Cost (In Million INR)- Actual from CA Certificate + Land cost	Project Cost (In Million INR)- Actual from CA Certificate + Land cost Per MW
Waaree PV Technologies	10 MWac	569.7	56.7

Bifurcation of project cost are given below: -

Particular's	Ammount
Land Cost	5.56
Balance of Plant	7.34
Plant and machinery	25.34
Building and Civil	1.68
Miscellaneous cost	17.05
Total Cost	56.97

The difference in actual project cost for different project site is due to time difference, manufacturer, negotiation skills of Project Owner etc.

The IRR as per the assumption from the DPR is as follows:

Project Owner	Project Capacity (MW)	Project Cost (In Million) as per DPR	IRR	Benchmark
Waaree PV Technologies	10 MWac	525.00	10.21%	14.16%

The IRR as per the actual project (only for) cost is defined as below:

Project Owner	Project Capacity (MW)	Actual project cost as per the CA Certificate	IRR	Benchmark
Waaree PV Technologies	10 MWac	569.74	8.49%	14.16%

As described above actual project cost with benchmark, the project is still additional. Since the comparison is done with actual project cost, the increase of the same in future is not possible. Thus, assessment team is of the opinion that project is still additional with the consideration of actual project cost for the project activity.

O&M cost and Escalation in the

The proposed project activity consists of project owner. The details are given below.

Project Owner	Project Capacity (MW)	O&M Cost (In Million INR)

Waaree PV Technologies	10 MW_{AC} // 14.25 MW_{DC}	6.63

operational expense =5(%)- Standard practice in India

The O&M cost has been considered from DPR and was available at the time decision made for the project activity.
The Project Verifier has also checked the actual O&M contract for both project site and found the changes in O&M cost is within threshold limit. Thus, the project activity is additional with actual O&M cost.

IRR value as per the assumptions from the DPR is as below:

Project Owner	Project Capacity (MW)	O&M Cost (In Million INR)	IRR	Benchmark
Waaree PV Technologies	10 MWac // 14.25 MW_{DC}	4.65	10.21%	14.16%

IRR value based on the actual O&M agreements signed is as below:

Project Owner	Project Capacity (MW)	O&M Cost (In Million)	IRR	Benchmark
Waaree PV Technologies	10 MWac	6.12	8.71%	14.16%

Even after consideration of O&M cost as zero, the project activity is additional.
Benchmark for the project as described above along with actual O&M value, the project is still additional.
Based on sectoral scope expert and local knowledge, the project O&M cost and its escalation considered as per O&M contracts for the proposed project activity is found to be appropriate for solar projects. Also, the O&M cost is available to Project Verifier and IRR is still within benchmark, thus, the same is acceptable.

Tariff

The proposed project activity consists of below SPVs. The details are given below.

Project Owner	Project Capacity (MW)	Tariff Rate (as per DPR)	Tariff Rate (as per PPA)
Waaree PV Technologies	10 MWac	4.40	4.40

The Project Verifier has checked the actual PPA for each project site and found there is minor changes in tariff rate and is within threshold limit. Thus, the project activity is additional with actual Tariff rate.
The tariff considered is levelized tariff and hence there is no any escalation. This is found to be appropriate and accepted.
IRR value as per the assumptions from the DPR is as below:

Project Owner	Tariff Rate (as per DPR)	IRR	Benchmark
Waaree PV Technologies	4.40	10.21%	14.16%

IRR value as per the actual PPA signed between Individual project owners and State electricity Board is as below: -

Site Name	Project Owner	Tariff Rate (as per PPA)	IRR	Benchmark
Puducherry Site	Waaree PV Technologies	4.40	10.21%	14.16%

Since the IRR is still below benchmark with the consideration of Actual

Power purchase agreement signed which is valid for total operational lifetime of the project, assessment team confirms that the project is still additional with actual Tariff rate. Moreover, in the above table the order from State electricity tariff order is checked and it is confirmed that PPA signed with the rate as mentioned in the Tariff order and hence increase of the same is not possible.
Based on sectoral scope expert and local knowledge, the project tariff rate considered as per state tariff order for the proposed project activity is found to be appropriate for solar projects.

PLF

The proposed project activity consists of below SPVs. The details are given below.

Project Owner	Project Capacity (MW)	PLF (%)
Waaree PV Technologies	10 MWac	22.72%

Verification team assessed the DPR. Same report has been used in the financials and the emission reduction calculation. PLF estimation by 3rd party engineering company is in line with Para 3 (b) Annex 11, EB 48 and acceptable to the assessment team.
The PLF has been taken from the DPR, and the same has been checked and found that PLF considered for the project activity in within the range of sensitivity analysis and found to be appropriate.
Based on sectoral scope expert and local knowledge, the project PLF considered as per DPR for the proposed project activity is found to be appropriate for solar projects.
IRR for PLF value as per the DPR = 3rd party DPR, Annex 11 EB 48

Project Owner	Project Capacity (MW)	PLF (%)	IRR	Benchmark
Waaree PV Technologies	10 MWac	22.72%	10.21%	14.16%

IRR as per the PLF value considered as per actual from generation record for year January-2022 and December 2022. The details are given below:

Generation Month- Year	Quantity (in KWh)
Jan-22	1728700
Feb-22	1763300
Mar-22	1973500
Apr-22	1959300
May-22	1843400
Jun-22	1833900
Jul-22	1788400
Aug-22	1788800
Sep-22	1839500
Oct-22	1429300
Nov-22	1410900
Dec-22	817000
Total	20,176,000 KWh

Project Owner	Project Capacity (MW)	PLF (%)- As per the actual Generation from period Jan-2022 to Dec-2022	IRR	Benchmark

Waaree PV Technologies	10 MWac	23.03%	10.16%	14.16%

The Plant Load Factor (PLF) starting from the commissioning of each unit, it was observed that the actual PLF value falls within the estimated range. This observation is supported by generation records spanning from the commissioning date up until the present. Consequently, the verification team has reached the conclusion that the Internal Rate of Return (IRR) remains below the benchmark, indicating that the project is still additional.

Tax Rates

Income tax rate (%)	30.00%
MAT (Minimum Alternate tax) (%)	18.50%
Surcharge (%)	12.00%
Health and Education Cess (%)	4.00%

The above table shows the tax rate considered for individual project Owner and the same is found suitable.
Assessment team noted that the project developer has adopted book depreciation rates as per Schedule XIV of the Companies Act, 1956 for computing book profit and Income Tax Act 1961 stipulated for income tax calculation, which are in conformity with the accepted accounting principles adopted by the company and income tax laws in the host country i.e., INDIA. Tax liability has been calculated as per the income tax rules and the rulings given. In computing the income tax liability, the project developers have considered Tax holiday (u/s 80IA of the Income Tax Act, 1961). Accelerated depreciation on plant and machinery is also sourced from IT act. The tax rates assumed corresponds to the tax rate prevailing at the time of taking decision. Hence, these assumptions are appropriate during decision making context and thus acceptable to the assessment team.
No further assessment is required as the Values are directly procured from Income Tax Act, 1961 which is standard guideline for Tax value in India.

Sensitivity analysis:

The Guidance on Investment analysis[/13/] requires the robustness of the conclusion arrived at to be proved through a sensitivity analysis by varying the critical assumptions to a reasonable variation. The project developer has identified Plant Load Factor (PLF), Project cost, Electricity tariff and O&M cost as critical assumptions. These critical parameters constitute more than 20% of either total project costs or total project revenues. The sensitivity analysis reveals that even under more favorable conditions, the IRR[/28/] without CDM revenue would not cross the benchmark return as given in the following table:

Sensitivity Analysis	**Equity IRR**			
Variation %	**-10%**	**Normal**	**10%**	**Breaching Value**
PLF	7.70%	10.21%	13.16%	13.25%
O&M	10.59%	10.21%	9.84%	-106.88%
Project Cost	13.06%	10.21%	8.24%	-13.18%
Tariff Rate	7.70%	10.21%	13.16%	13.25%

The results of sensitivity analysis show that even with a variation of +10% & -10% in

project cost, O&M cost, PLF and Tariff Rate, Equity IRR is significantly lower than the benchmark. And it is evident from the results given above; the project remains additional even under the most favorable conditions.

Verification team also confirmed the breaching values for individual parameters (=Individual project owners) and thus confirms that the project is still additional

Project Owner	Project Capacity (MW)	PLF in DPR	Actual PLF	Variation in PLF	Breaching Value for PLF
Waaree PV Technologies	10 MWac	22.72%	23.03%	+1.36%	13.25%

Project Owner	Project Capacity (MW)	DPR Project Cost (In Million INR)	Actual Cost from CA Certificate + Land Document (In Million INR)	Variation in project cost	Breaching value for Project Cost
Waaree PV Technologies	10 MWac	525.00	569.7	+8.51 %	-13.18%

Project Owner	Project Capacity (MW)	DPR Tariff	PPA Tariff	Variation in Tariff	Breaching value in Tariff Rate
Waaree PV Technologies	10 MWac	4.40	4.40	0%	13.25%

Project Owner	Project Capacity (MW)	DPR O&M cost (In Million INR)	Actual O&M cost (In Million INR)	Variation in O&M	Breaching value in O&M
Waaree PV Technologies	10 MWac	6.63	6.12	-7.69 %	-106.88%

Hence the project activity is additional, and the Verification team considers the approach and calculations acceptable as per the requirements in the methodological tool. //

Findings	CAR 06 was raised in this context and closed successfully. Please refer to the appendix 4 for further details.
Conclusion	Based on the information provided in the PSF and guidance by GCC Project Standard version 03.1/2/ and clarification 02/24/ from GCC project verificationteam confirmed the project activity is deemed additional without any further analysis of the other barriers.

D.3.6 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	The verification team checked whether the equations and parameters used to calculate GHG emission reductions or net anthropogenic GHG removals for PSF is in accordance with applied methodology. Verification team checked section B.6 of the PSF to confirm whether all formulae to calculate baseline emissions, project emission and leakage have been applied in line with the underlying methodology.

	Baseline Emissions: The baseline emissions as discussed in B.6.1 mentioned that the emission would have occurred in the absence of the project activity. The emission reduction calculation has been done as per the SSC methodology AMS-I.D., Version 18.0 $BEy = EG_{PJ\,y} \text{ X } EF_{grid,\,y}$ Where, BE_y = Baseline Emissions in year y; tCO2 $EG_{PJ,\,y}$ = Quantity of net electricity displaced as a result of the implementation of the GCC project activity in year y (MWh) $EF_{grid\,y}$ = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system Version 7.0" (t CO2/MWh) As per paragraph 26, if the project activity is If the project activity is the installation of a greenfield power plant $EG_{PJ,y} = EG_{PJ,facility,y}$ Where $EG_{PJ,facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh) **Determination of $EG_{PJ,facility,y}$** As per PSF the estimated net electricity generation from the project activity is 19,287 MWh (annual average over the crediting period) and calculated combined margin emission factor based on the Tool is 0.9305 tCO2e/MWh. Hence the baseline emission value will be 17,946 tCO2e. **Project emission: -** The quantity of diesel combusted in DG set will be monitored and the ex-post value will be used for estimation of project emissions in the crediting period. $PE_y = 0\ tCO_2$. **Leakage Emissions: -** The project activity is installed of new hydropower project and does not involve transfer of any kind of generating equipment from another activity. Hence line with paragraph 42 of methodology AMS I.D. Version 18. Hence leakage for this project activity is zero. **Emission reductions: -** As per Paragraph 63 of the applied methodology/12/, emission reductions are calculated as follows: - $ER_y = BE_y - PE_y - LEy$ Where: ER_y = Emission reductions in year y (tCO_2e/y) BE_y = Baseline Emissions in year y ($t\ CO_2/y$) PE_y = Project emissions in year y ($t\ CO_2/y$) LE_y = Leakage emissions in year y ($t\ CO_2/y$) $ER_y = 17,946 - 0 - 0$ $= 17,946\ tCO_2e$.

	Based on the above estimation $ER_y = BE_y$, Hence the annual emission reductions based on the ex-ante parameters is 17,946 tCO_2e.
Findings	No Findings were Raised.
Conclusion	Verification team confirm that the algorithms and formulae proposed to calculate project emissions, baseline emissions, and emission reductions in the PSF/10/ is in line with the requirements of the selected methodology AMS I.D. Version 18/12/ For ex-ante calculation, the assessment team confirms that • All assumptions and data used by the project participants are listed in the PSF/10/ including their references and sources. • All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PSF/10/ • All values used in the PSF are considered reasonable in the context of the proposed project activity • The baseline methodology /12/ and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions; • All estimates of the emissions can be replicated using the data and parameter values provided in the PSF/10/. All calculations are complete and without any omissions.

D.3.7 Monitoring plan

Means of Project Verification	The monitoring plan described in the PSF is in compliance with the applied methodology AMS-I. D Version 18.0. The monitoring plan has been found to be in compliance with the requirements of the applied methodology for calculation of GHG emission reductions, GCC Environment and-Social-Safeguards-Standard- v2.0 and Project-Sustainability-Standard-v3.1. The assessment team has reviewed all the parameters in the monitoring plan against the requirements of the applied methodology and confirmed that monitoring parameters are applied in line with the requirement of the methodology and relevant in the context of the program. The procedures have been reviewed by the assessment team through document review and interviews with the respective monitoring personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the project owner. Specifically, these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. Therefore, the project owner will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified. The parameters that are fixed ex-ante are:

Parameter	Value	Source
Build Margin emission factor ($EF_{grid,BM,y}$)	0.8653 tCO_2/MWh	CO2 Emission Database, Version-17.0, October 2021 published by Central Electricity Authority (CEA), Government of India.
Operating Margin emission factor ($EF_{grid,OM,y}$)	0.9522 tCO_2/MWh	
Combined Margin CO_2 emission factor ($EF_{grid,OM,y}$)	0.9305 tCO_2/MWh	

The parameters that are to be monitored ex-post as per applied methodology & parameters identified as harmless and harmful under Environmental and Social Safeguard section in the PSF and the applicable SDG parameters are given below.

1	$EG_{PJ,facility,y}$ (SDG-7)	The monitoring parameter will be continuously monitored by means of ABT meters (Main and Check Meters) of 0.2s accuracy classwhich is located at of the 110 KV switchyard transformer bay power plant premises. The meters are jointly inspected and sealed by the state utility and its representatives. The calibration of the meters has been carried out once in five years by the state utility and readings of meters shall be taken on monthly basis by authorized officer of Electricity Department Puducherry in the presence of project owner or representative of Project owner. Net electricity is calculated as the difference between export and import meter readings. Based on the meter reading statement and transmission loss deducted as per JERC approved tariff order.JMR is issued by Electricity Department Puducherry to Project owner further invoices will be raised.to consumer by project owner. These invoices can be used for cross checking the meter readings taken for the respective project activity. It was evident from verifying the invoices raised by the project owner and interviewed the project owners during. All data collectedas part of monitoring will be archived electronically andbe kept at least for 2 years after the end of the crediting period or till the last issuance of ACCs for the project activity whichever occurs later.
2	CO_2 emissions	The parameter is calculated based on the net electricity generation from the project activity and grid emission factor. Reduction of CO2 emissions due to implementation of project activity that would otherwise been emitted by thermal power plants. The monitoring parameter will be continuously monitored by means of energy meters as mentioned above monitoring parameter $EG_{PJ,facility, y.}$
3	Replacing fossil fuels with renewable sources of energy	The parameter is calculated based on the net electricity generation from the project activity. The monitoringparameter will be continuously monitored by means of energy meters as mentioned above monitoring parameter $EG_{PJ,facility, y}$.
4	Long-term jobs (> 1 year) created/ lost	This parameter is monitored based on the number of jobs created by the project owner in the long-term basisand ensures that employments will beprovided from the project activity. This will be verified using the HR and payroll records of the employees who worked on the project activity. This was confirmed by interviewing the monitoring personnel of the project activity during on Remote audit and the monitoring practicesfollowed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
5	Short term jobs	This parameter is monitored based on the number of jobs created by the project owner in the Short-term basis and ensures that employments will beprovided from the project activity. This will be verified using the HR and payroll records of the employees who worked on the project activity. This was confirmed by interviewing the monitoring personnel of the projectactivity during on Remote audit and the monitoring practicesfollowed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
6	Specialized training /	This parameter is continuously monitored based on the training records generated over the period of time. This was verified based on training records of the employees who worked on the

		education to local personnel	project activity. This was confirmed by interviewing the monitoring personnel of the project activity during on Remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the assessment team.
	7	Average earnings of females and male employees engaged in the project and segregated by age and persons with disabilities (SDG-8)	This parameter is continuously monitored based on the number of local employments generated by the project owner in the long-term basis. This will be verified using the HR and payroll records of the employees who worked on the project activity along with details of female-male break up, age and role and persons with disabilities, if any. This was confirmed by interviewing the monitoring personnel of the project activity during on Remote audit and the monitoring practices followed by the project owner is appropriate in relation to the project activity and its acceptable to the Verification team.
	8	Amount of emissions reductions achieved by project under UNFCCCs/ GCC market mechanism (SDG -13)	The parameter is calculated based on the net electricity generation from the project activity and grid emission factor. Reduction of CO2 emissions due to implementation of project activity that would otherwise be emitted by thermal power plants. The monitoring parameter will be continuously monitored by means of energy meters as mentioned above monitoring parameter $EG_{PJ,facility,y.}$
Findings	CAR 03 was raised and closed successfully Please refer to the appendix 4 for further details.		
Conclusion	The verification team confirms that, • The verification team confirms that the monitoring plan based on the approved monitoring methodology is correctly applied to the PSF. • The monitoring plan will give opportunity for real measurements of achieved emission reductions. The verification team considers that monitoring arrangements described in the monitoring plan is feasible within the project design. • The means of implementation of the monitoring plan are sufficient to ensure that the emission reduction and other voluntary labels achieved from the project activity is verifiable and thereby satisfying the requirement of Verification Standard. • The monitoring plan will give opportunity for real measurements of achieved emission reductions. There are no host country requirements pertaining to monitoring of any sustainable development indicators. Therefore, there are no such parameters identified in the PSF.		

D.4. Start date, crediting period and duration

Means of Project Verification	The Start date of the project activity is 24/03/2021, which is the commercial operation date of the project activity. The Commissioning certificates[15] of the installation of the project activity has been verified and confirmed start date as per PSF is found correct and acceptable to verification team. A crediting period of a maximum length of 10 years has been selected by project owner. The start date of the crediting period is stated as 24/03/2021, which is appropriate as per paragraph 40(b) of the Project Standard version 03.1. The crediting period is therefore from 24/03/2021 - 23/03/2031.

	The expected lifetime of the project activity is 25 years which is verified by the technical details/15/ of the PV panels and confirmed based on the sectoral expertise.
Findings	CAR 05 was raised and closed successfully.
Conclusion	The start dates and the crediting period type & length have been verified and found to be in accordance with GCC project standard version 03.1.

D.5. Environmental impacts

Means of Project Verification	As The guidelines on Environmental Impact Assessment have been published by Ministry of Environment, Forests and Climate Change (MoEF&CC), Government of India (GOI) under Environmental Impact Assessment notification 14/09/2006. Further amendments to the notification have been done on 01/12/2009, the Solar Power projects are not listed in any of the categories of the schedule, hence the NO EIA required as per host country legislation.
Findings	No findings raised in this context.
Conclusion	In the opinion of the assessment team, in the project activity environmental impacts is not significant as per host country legislation. Further analysis not required in this context.

D.6. Local stakeholder consultation

Means of Project Verification	A LSC was conducted for the project activity on 24/10/2018 in the Waaree PV Technologies Private Limited site office of the project activity. The consultation was performed to meet the requirement of the GCC since there are no Host country requirement to conduct consultation for such projects. The verification team confirms that the local stakeholder consultation process was performed by the project owner before the submission of the project activity for global stakeholder consultation. The objective of the local stakeholder consultation carried out to comply with GCC requirements and identify the comments/concerns that might be required to be addressed by project owner. The local stakeholders were invited through notice to head of the village/local body. In addition, the public has been informed about the LSC Meeting through notices in government building and schools including the public places in and around the project activity locations villages. As detailed in the stakeholder consultation report, the representative of GCC project owner explained technical aspects and GCC mechanism & its requirement of project to stakeholders, also explained about Social, Environmental benefits and UN sustainable development goal impacts of the project. Furthermore, the project owner was asked to provide feedback on the project activity, including whether the project will have a positive, negative, or no impacts The stakeholder consultation responses/18/ were received by the assessment team. The verification team confirmed by review of the stakeholder responses that the summary of stakeholders' comments reported in PSF was accurate. There was no negative feedback received. The list of the relevant stakeholders who were requested for feedback is also provided in the PSF.
Findings	CAR 07 is raised and closed successfully. Please refer to the appendix 4 for further details.
Conclusion	The verification team confirms that the summary of stakeholders' comments reported in PSF is complete. In the opinion of the team, the local stakeholder consultation process was adequately conducted by the project participant considering the ongoing pandemic to receive unbiased comments from the all the stakeholders. The verification team confirms that the local stakeholder consultation process performed for the project activity fulfils the requirements and all the LSC documents /19/ are verified and found acceptable.

D.7. Approval and Authorization- Host Country Clearance

Means of Project Verification	As per the GCC program guidelines the submission of HCA on double counting is required by CORSIA labelled project after 31/12/2020 as verified under section D.13 of this report. As the start date of project activity is 24/03/2021 and issuance of ACC post 01/01/2021 required host country approval. Thus, for this project activity Host country clearance is required at the time of project verification.
Findings	No findings were raised.
Conclusion	The project verification team confirms that no Host Country approval is required by the CORSIA labelled project activity and the HCA will be required during the first or subsequent verification, when the issuance of carbon credit is considered beyond 1st Jan 2021.

D.8. Project Owner- Identification and communication

Means of Project Verification	The information and contact details of the project owner and project owners themselves has been appropriately incorporated in Appendix 1 of the PSF which was checked. The Authorization letters signed by the project owners has been verified and also the company registration documents/31/ and project owner valid passports/31/ have been checked. The legal owner of the project is Waaree PV Technologies Private Limited and same to be demonstrated by the project owner through the commissioning certificates /15/ power purchase agreement/17/ and Purchase order //placed to the major equipment suppliers of the project activity like PV panels, Inverter, Transformer etc. of the Waaree PV Technologies Private Limited. All information were consistent between in these documents and acceptable to the verification team
Findings	No findings were raised
Conclusion	The project verification team confirms that the information of the project ownershas been appended as per the template and the information regarding the project owners stated in the PSF/10/ and authorization letter/15/ were found to be consistent

D.9. Global stakeholder consultation

Means of Project Verification	The PSF was made available through the dedicated interface on the GCC website. The duration of the period for submission of comments for the global stakeholder consultation was from 01/08/2022 to 15/08/2022.There were no comments received during this period
Findings	No findings raised.
Conclusion	The PSF had been made public for receiving stakeholder feedback and no comments were raised during the GSC process

D.10. Environmental Safeguards (E+)

Means of Project Verification	The Project owner has chosen to apply for the Environmental No-net-harm Label (E+). The assessment of the impact of the project activity on the environmental safeguards has been carried out in section E.1 of the PSF. Out of all the safeguards no risks were identified to the environment due to the project implementation and operation. And the following have been indicated as positive impacts Environment – Air- CO_2 emissions. Environment – Natural Resources – Replacing fossil fuels with renewablesources of energy Few risks identified regarding Solid waste Pollution from PV module waste generated at the end of life or damaged/defunct module generation during operational life of the project activity and project owner provided mitigation planto reduce the risk is not likely to cause any harm in section B.7.2 of the PSF. The appropriate monitoring plan has been put in place to monitor the elements

	marked positive and risks identified due to implementation of the project activity and the parameter compliance with local regulations/laws i.e., Solid waste like disposal of Transformer oil and other hazardous, E-Waste generated from the project activity will be also monitored to ensure the compliance of the laws during the crediting period has been provided in Section B.7.1 of the PSF. The detailed matrix has been included in appendix 5 of the report.
Findings	No findings were raised.
Conclusion	Based on the documentation review the verification team can confirm that Project Activity is not likely to cause any negative harm to the environment but would have a positive impact, hence, is eligible to achieve additional E+ certifications

D.11. Social Safeguards (S+)

Means of Project Verification	The Project owner has chosen to apply for the Social No-net-harm Label (S+). The assessment of the impact of the project activity on the social safeguards has been carried out in section E.2 of the PSF. Out of all the safeguards no risks were identified to the society due to the project implementation and operation. Only positive impacts identified by the Project owner which is not likely to cause any harm. The following have been identified as positive impacts of the project activity. a) Social – Jobs: Long-term jobs (> 1 year) created/ lost b) Short-term jobs c) Specialized training / education to local personnel An appropriate monitoring plan all activities involved in the project activity has been put in place to monitor the elements. detailed matrix has been included in appendix 7 of the report.
Findings	CAR 08 was raised and closed successfully. Please refer to the appendix 4 for further details.
Conclusion	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the society but would have a positive impact, hence, is eligible to achieve additional S+ certifications

D.12. Sustainable development Goals (SDG+)

Means of Project Verification	The assessment of the contribution of the project activity on United Nations Sustainable Development Goals has been carried out in section F of the PSF. Out of the 17 Goals project activity has no adverse effect on any of the goal and contribute to 3 SDGs: Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all: SDG Target 7.2, The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by renewable hydro-based power generation. The contribution towards SDG goal is being monitored by the parameter '$EG_{PJ,Facility,y}$', quantity of net electricity generation supplied by the project plant/ unit to the grid in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report. Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all Goal 13. Take urgent action to combat climate change and its impacts The detailed matrix has been included in appendix 7 of the report.
Findings	No findings were raised in this section.
Conclusion	Based on the documentation review the verification team can confirm that Project Activity is likely to contribute to the United Nations Sustainable Development Goals and would have a positive impact, hence, is eligible to achieve additional SDG+ certifications

D.13. Authorization on Double Counting from Host Country (for CORSIA)

Means of Project Verification	A declaration under section A.5 of the PSF has been included for offsetting the approved carbon credits (ACCs) for the entire crediting period from 24/03/2021 to 23/03/2031.
Findings	CAR 01 raised and closed successfully. FAR 01 was raised for future verification. Please refer to the appendix 4 for further details.
Conclusion	The project owner has clarified the intent of use of carbon credits for CORSIA hence no double counting will take place. The project owner declared that no host country attestation is required for the pilot phase of 2021-23 (accepting credits issued for monitoring periods between 2016 and 2020), which is appropriate and acceptable according to paragraph 16 of the Standard on Avoidance of Double Counting, V1.0. Also, the verification team raised to Forward Action request to project owner to submit Host Country Authorization before any issuance period as the start date of the project activity 24/03/2021and also the host country must ensure that no emission reductions from the corresponding monitoring period of project are claimed under NDC during issuance of HCLOA for the project activity as per the guidance.

D.14. CORSIA Eligibility (C+)

Means of Project Verification	The project activity meets the CORSIA Eligibility since the crediting period is after 01/01/2016 and the project is applying for registration under GCC which is one of the approved programmes for eligibility. It was also confirmed that the project activity does not fall under the excluded unit types, methodologies, programme elements, and/or procedural classes. The Project Activity does not cause any net harm to the environment and/or society and therefore achieves Environmental No-net-harm Label (E+) and Social No-net-harm Label (S+) as per the Environmental and Social Safeguards Standard also make contributions for achieving United Nations Sustainability Development Goals (SDGs) to achieving. at least three SDGs as per Project Sustainability Standard to achieve SDG+ Label
Findings	FAR 01 is raised. Please refer to the appendix 4 for further details
Conclusion	The project activity meets the CORSIA Label (C+) eligibility: a) The Project Activity complies with all the requirements for the Emission Unit Criteria of CORSIA b) A written attestation from the host country's national focal point on double counting is not required for Emission units till 31st December 2020; c) The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.2 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project. d) The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard and will achieve Environmental No-net-harm Label (E+), Social No- net-harm Label (S+) for this project activity The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the Project Sustainability Standard and will achieve UN SDG Certification Labels (Silver SDG+ Label) for this project activity

Section E. Internal quality control

The project verification report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm the internal procedures established by LGAI Technological Center S.A. are duly followed and the Verification report/opinion is reached in an objective manner and complies with the applicable GCC requirements.
The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team. The independent technical reviewer(s) may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before submit final report to GCC. The final approval decision is taken by the Head of the DOE/Director.

Section F. Project Verification opinion

LGAI Technological Center S.A. (Applus+ Certification) has been contracted by 'Waaree PV Technologies Pvt. Ltd' to undertake verification of the project activity "10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India" in India. The verification was performed based on rules and requirements defined by GCC for the project activity.

The project involves installation of 10 MW_{AC} Solar Photovoltaic (SPV) Panels by Waaree PV Technologies Pvt. Ltd. The electricity generated from project activity is exported to the Indian grid in India through power purchase agreement with i.e., Chemfab Alkalis Limited through Long term open access (LTOA), there by displacing electricity from the regional grid electricity distribution system generated by fossil fuel-based power plants. This project activity consists poly crystalline cells type of panels of and associated connection boxes, Inverters, transformers and other field equipment's. Thus, the project activity is estimated to generate an average of 19,287 MWh/year electricity and displacing 17,946 tCO_2e/year. The project correctly applies the approved baseline and monitoring AMS-I.D. version 18.0 and is assessed against latest valid PS, VS and Environment and Social Safeguards Standard, Project-Sustainability- Standard and/or other applicable GCC/CDM Decisions/Tools/Guidance/Forms.

The project activity is likely to achieve the anticipated emission reductions stated in the PSF provided the underlying assumptions do not change. The expected emission reductions (annual average) from the project activity are estimated to be 179,469 tCO_2e/year over the 10 years crediting period starting from 24/03/2021.

LGAI Technological Center S.A. (Applus+ Certification) has verified and hereby certifies that the GCC Project Activity "10 MW Solar Power Project by Waaree PV Technologies Pvt. Ltd at Puducherry, India":

- PO has correctly described the Project Activity in the Project Submission Form (version 4, dated 27/07/2023) including the applicability of the approved methodology AMS I.D, version 18.0 and meets the methodology applicability conditions, is additional and is expected to achieve the forecasted real measurable and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reduction estimates correctly and conservatively;

- is likely to generate GHG emission reductions amounting to the estimated 179,469 tCO_2e over the fixed crediting period of ten years, as indicated in the PSF, which are additional

to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3, and therefore requests the GCC Program to register the Project Activity

- is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard, and therefore requests the GCC Program to registerthe Project Activity, which is likely to achieve the requirements of the Environmental No-net-harm Label(E+) and the Social No-net-harm Label (S+); and

- is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), comply with the Project Sustainability Standard, and contribute to achieving a total of 3 SDGs, which is likely to achieve the Silver SDG certification label (SDG+).

- The Project Activity complies with all the applicable requirement of the GCC Program and ICAO's requirements on CORSIA Emissions Unit Eligibility Criteria and CORSIA Eligible Emissions Units, as per Clarification No 1., v1.2 paragraph 21-23, and the ACCs expected to be issued during the creditingperiod is likely to be CORSIA eligible and can be used by International Airlines for offsetting t

  emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project

- is likely to contribute to CORSIA Eligible Emission Units and has CORSIA Label (C+) certification validtill 31 December 2020. A written attestation from the Host country on double counting is not required until 31 December 2020 and the project was found to meet the applicable requirements prescribed by ICAO.

Appendix 1. Abbreviations

Abbreviations	Full texts
ACC	Approved Carbon Credits
AMS	Approved Methodology for SSC Projects
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CM	Combined Margin
CPCB	Central Pollution Control Board
CO_2	Carbon dioxide
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CP	Crediting Period
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GHG	Green House Gas
GW	Giga Watt

GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
kW	kilo Watt
kWh	kilo Watt hour
LSC	Local Stakeholder Consultation
MoV	Means of Verification
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
OM	Operating Margin
PA	Project Activity.
PSF	Project Submission Form
PE	Project Emission
PLF/CUF	Plant Load Factor/Capacity utilization factor
PO	Project Owner
PS	Project Standard
SDG	Sustainable Development Goal
tCO_2e	Tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VS	Verification Standard

Appendix 2. Competence of team members and technical reviewers

- **Dr. Atul Takarkhede** is Ph.D. (Environmental Sciences) from Institute of Science, RTM Nagpur University, Nagpur, and he has already published different technical papers related to environmental sciences. He counts with more than 11 years of experience in field of Environmental Auditing, consulting, and accreditation. He is an expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management reporting for organizations' environmental performance. His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; conducting environmental/water audits; NABET requirements appliance, functional area expert in Water Pollution & Solid & Hazardous Waste management among others. Furthermore, he counts with solid experience on CDM/VCS-GS consultancy and auditing. Currently he is associated with True Quality Certifications Private Limited and empanelled with Applus+ Certification to carry out GHG audits in the aforementioned schemes. Dr. Atul Takarkhede is based in Nagpur, India. Dr. Atul Takarkhede participates as part of the Audit Team as the Lead Auditor and Technical Expert for the assessment.

- **Mr. David Lubanga** is a trained engineer with over 10 years' experience of renewable as a GHG auditor. His experience as a renewable energy project, energy efficiency, energy audits and waste management and waste to energy. He is certified auditor for ISO 50001 and 14064-2. He has successfully audited more than 300 GHG (CDM/VCS/GS) projects in different countries around the world. David holds a BSc. In Biochemical Engineering form Jacobs University Bremen (Germany), and a MSc in Environmental Resource Management form Brandenburg Technical University Cottbus (Germany), and Sheffield Hallam Technical University (England). He has undergone additional professional training in Renewable energies, Renewable Energy and finance, Energy efficiency and waste management in Scotland, Germany, and Austria. Mr. David Lubanga is based in Nairobi, Kenya. Mr. David Lubanga participates in the Project's technical review team.

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider
1	GCC	GCC Program Manual	Version 03.1	Project Owner
2	GCC	Project Standard	Version 03.1	Project Owner
3	GCC	Verification Standard	Version 03.1	Project Owner
4	GCC	Environment-and-Social - Safeguards-Standard	Version 03.0	Project Owner
5	GCC	Project-Sustainability-Standard	Version 03.1	Project Owner
6	GCC	Project Submission Form	Version 04.0	Project Owner
7	GCC	Clarification 01	Version 01.3	Project Owner
9	GCC	Standard on avoidance of double counting	Version 01.0	Project Owner
10	Project Owner	Webhosted PSF Final PSF	Version 02, Dated 27/07/2022 Version 04.0, Dated 27/07/2023	Project Owner
11	Project Owner	Webhosted ER sheet Final ER sheet	Version 02, Dated 27/07/2022 Version 04.0, Dated 04/11/2022	Project Owner
12	Project Owner	IRR Sheet.	-	
13	UNFCCC	Methodology: AMS-I. D	Version 18.0	Project Owner
14	UNFCCC	1. Tool 07: Tool to calculate the emission factor Version 7.0 2. Tool 27: Tool for Investment Analysis Version 12.0 3. Tool 21: Demonstration of additionality of small-scale project activities. 4. Tool 20: Assessment of debundling for small-scale project activities	1. Version 07.0 2. Version 12.0 3. Version 13.1 4. Version 4.0	Project Owner
15	Project Owner	Commissioning Certificates: - • Commissioning certificate of 10MWac solar plant at Puducherry issued by Government of Puducherry Electricity Department,	Ref no. ED/EE-EHV/AEE-EHV/F.WAAREE-2021-22, Dated 16/04/2021.	Project Owner
16	Project	Technical Details of Solar PV Modules	-	Project

	Owner	installed in the PA.		Owner
17	Project Owner	Power Purchase Agreement Signed between Waree PV Technologies Pvt. Ltd. and Chemfab Alkalis Limited. Ref IN-PY29254786782243R	Dated- 02/01/2019	Project Owner
18	Project Owner	local Stakeholder Consultation documents like invitation, Notes on LSC, Meeting Photos	-	Project Owner
19	Project Owner	Employee Records / HR Records	--	Project Owner
20	M. N. seth and associates	CA Certificate and Detail Project Report (DPR) For	DPR Dated: 08/05/2018	Project Owner
21	Electricity Department Puducherry.	JMR Statement		Project Owner
22	Government of India	Electricity Act 2003 National Electricity Policy 2005	Dated 26/05/2003 Dated 12/02/2005	Publicly available
23	CDM	CDM Website https://cdm.unfccc.int/Projects/projsearch.html	-	Publicly available
24	VERRA	Verra Registry https://registry.verra.org/app/search/VCS/All%20Projects	-	Publicly available
25	Gold Standard	GS Website: https://registry.goldstandard.org/projects?q=&page=1		Publicly available
26	I-REC Standard	International REC Standard (I-REC) https://www.irecstandard.org/registries/	-	Publicly available
27	Revised Categorization of the Industrial Sector namely "Solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW)"- Policy CPCB modified direction No. B29012/ESS (CPA)/2015-16.	Dated 17/11/2017 Dated 07/03/2016	-	Project Owner.

28	Government Of India	Income Tax Act 1961	-	Publicly Available
29	Government Of India	Companies Act 1956	-	Publicly Available
30	Government Of India	National Tariff Policy	-	Publicly Available
31	Company Policies	1. CORPORATE SOCIAL RESPONSIBILITY (CSR) POLICY 2. E Waste Management Policy - https://www.tatapower.com/pdf/aboutus/e-waste-mgmt-policy.pdf 3. Gender Diversity & Inclusion Policy 4. Health & Safety Policy Human Rights Policy	1. 25/03/2019 2. 04/102018 3. 09/07/2018 4. 11/03/2019 30/08/2019	Project Owner
32	Project Owner	Sales Invoices		Project Owner
33	Government Of India	CEA Database https://cea.nic.in/wp-content/uploads/baseline/2022/02/database_17_.zip	Version.17	Publicly Available
34	Government Of India	The Electricity Regulation Commission Act, 1998	-	Publicly Available
35	Government Of India	The Electricity (Supply) Act, 1948	-	Publicly Available
36	Government Of India	National Renewable Energy Act 2015	-	Publicly Available
37	Government Of India	Schedule 1 of Ministry of Environmental and Forest notification	-	Publicly Available
38	Project Owner	GCC Letter of authorization signed between legal owners & external representative	-	Project Owner
39	Project Owner	CERC Data (2016)	https://cercind.gov.in/2016/orders/sm_3.pdf	Project Owner
40	Project Owner	O & M Contract	-	Project Owner
41	Project Owner	Board Resolution Letter for project activity	-	Project Owner

Appendix 4. Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

CL ID	01	**Section no.**	D.2	**Date:** 28/02/2023
Description of CL				
1. PO requested to clarify that if any open comments raised during GCC completeness check and GSC period. Moreover, also submit evidence for the same. 2. Location of the Project activity is not consistent throughout the PSF. Please clarify.				
Project Owner's response				**Date:** 05/06/2023

1. All the open comments have been addressed which were raised during GCC completeness check and GSC period. Also, evidence for the same has been submitted. 2. Location has been made consistent throughout the PSF and revised PSF has been submitted along with this submission.
Documentation provided by Project Owner
1. GCC Project Page PDF 2. Revised PSF V02
GCC Project Verifier assessment **Date:** 27/06/2023
1. PO has submitted evidence for the GCC completeness check. Comments received were closed which were raised during the completeness check no minor comments observed during completeness check. 2. PO has updated the location of the Project activity which is consistent throughout the revised PSF. Thus, CL# 01 is closed.

CL ID	02	**Section no.**	D.3.2	**Date:** 28/02/2023
Description of CL				
Applied CDM Methodology in revised PSF found not in line with PSF webhosted during GSC period. Please clarify.				
Project Owner's response				**Date:** 05/06/2023
Since the project supply generated electricity to the Third-party recipient via grid hence AMS I.D has been applied instead of the methodology used during webhosting and the PSF has been revised for the same post GSC period.				
Documentation provided by Project Owner				
GCC Project Verifier assessment				**Date:** 27/06/2023
During review of the meth assessment team found as energy generated from the project activity is supplied to third party i.e Chemfeb Alkalis Limited as per PPA signed with PO. Thus, VVB team found applied during GSC period i.e meth. GCCM001 is not applicable, however AMS I.D methodology applicable for project activity. Thus CL 02 is closed.				

Table 2. CARs from this Project Verification

CAR ID	01	**Section no.**	D.2	**Date:** 28/02/2023
Description of CAR				
1. PO is requested to submit the supporting document, so as to confirm the latitude and longitude of the project activity. 2. PO shall use the Language appropriately in the entire PSF as the project activity is installed and commissioned. 3. As per the requirement of para 14 and 15 of the GCC Project Standard, Project activity is required to demonstrate compliance to criteria for CORSIA. Corrective action sought 4. PO shall provide commissioning certificate to verify date of commissioning provided for the project activity in section A.1 of PSF. 5. Section A.1, A.3 and A.5 of PSF not in line with the guidelines to complete PSF template latest available on GCC website. Corrective action sought.				
Project Owner's response				**Date:** 05/06/2023

1. To confirm the geo-coordinate of the project activity, KML file has been submitted. 2. PSF has been revised and language has been appropriated w.r.t installed project activity. 3. In the cover page of the PSF in CORSIA requirements, though the Corisa Eligibility is checked however PO has unchecked "Host country attestation on double counting" and will provide the same during issuance meeting the requirements of Standard on Avoidance of Double Counting v1, section 3.3 para.16 "*if the above documents cannot be submitted by the Project Owner as part of request for registration, then, HCLOA for the project activity shall be submitted to GCC Program together with the project documentation required for submission of request for issuance*". The same has been checked by the PO on the cover page of the PSF under section "Declaration by the Authorized Project Owner and focal point" and provided in section H of the PSF. 4. We are submitting Commissioning certificate to verify the date of commissioning. 5. Section A.1, A.3 and A.5 of PSF are now in line with the guidelines of version 4 of PSF template provided by GCC on 27/09/2022.
Documentation provided by Project Owner
1. KML 10 MW File 4. Commissioning certificate
GCC Project Verifier assessment **Date:** 27/06/2023
1. PO has submitted the supporting document for the location of project activity. VVB team verified that KML file is showing the exact location of the project activity, further requested provide geotagged image of project location. 2. PO has not updated the language appropriately in the entire PSF as Project is implemented and contributing towards emission reduction. 3. Regarding the submission of Host country attestation on Double Counting as and when required by CORSIA, Assessment team raised a FAR for submission of request of the issuance verification team. 4. PO has submitted the Commissioning certificate dated 16/04/2021 issued by government of Puducherry electricity department. VVB Team verified that Commissioning date of the project is inline with date provided in section A.1 of PSF. 5. Po has updated the section A.1, A.3 and A.5 of PSF which is now in line with the guidelines of the PSF template latest available on GCC website. Thus, CAR #01 is open.
Project Owner's response **Date:** 05/07/2023
1. Geotagged images of project location has been provided along with this submission. 2. PSF has been revised and language has been appropriated w.r.t installed project activity.
Documentation provided by Project Owner
1. Geotagged images
GCC Project Verifier **Date:** 07/07/2023
1. PO has submitted the Geotagged images of the project activity and found inline with the project geo-coordinates provided in PSF. 2. Language is now appropriate throughout the revised PSF as project is already implemented and contributing towards emission reduction. Thus, CAR # 01 is closed.

CAR ID	02	**Section no.**	D.3.1	**Date:** 28/02/2023
Description of CAR				
1. Version of Project Sustainability standard shall be updated to the latest available version. Kindly update 2. PO requested to provide tool number in section B.5 and B.6 of PSF. 3. Central Electricity Authority of India has recently updated CEA CO_2 database to version 18.0. PO is requested to considered the updated version18, for emission reduction calculation. Corrective action sought.				
Project Owner's response				**Date:** 05/06/2023

1. Latest version of Project Sustainability standard V3.1 provided by GCC on 29/01/2023 has been updated and revised PSF has been submitted for further review. 2. Tool numbers has been updated in section B.5 and B.6 of PSF. 3. The GSC period for project activity is “1 Aug 2022 - 15 Aug 2022” and as per latest Comment by GCC: "_CEA version 18 was published in September 2022 which is after the date of GSC for the project. However, in case of GCC this is latest at the time of submission of PSF for GSC"_the CEA version 17 is applicable while calculating the ERs if GSC of the project is before the date of release of CEA version 18.
Documentation provided by Project Owner
1. Revised PSF V 2.0
GCC Project Verifier assessment **Date:** 27/06/2023
1. PO has updated the Latest version 3.1 of the Project Sustainability standard on cover page of the PSF. 2. PO has updated the Tool number in the section B.5 and B.6 of the PSF as per the latest available Tools on the website. 3. As the GSC period for the project activity is “1/08/2022 – 15/08/2022” and CEA version 17.0 used at the time of submission of PSF for GSC period. Thus, CEA version 17 is acceptable to the VVB Team. Thus, CAR #02 is closed.

CAR ID	03	**Section no.**	D.3.6	**Date:** 28/02/2023
Description of CAR				
Formula used under section B.6 of PSF found not inline with applied methodology.				
Project Owner’s response				**Date:** 05/06/2023
ER calculation formula has been corrected under the section B.6 as per the applied methodology.				
Documentation provided by Project Owner				
Revised PSF V2.0				
GCC Project Verifier assessment				**Date:** 27/06/2023
PO has updated formula used under section B.6 of PSF which is now inline with the applied methodology. Thus, CAR # 03 is closed.				

CAR ID	04	**Section no.**	D.3.7	**Date:** 28/02/2023
Description of CAR				
1. Project activity is already commissioned, however PSF is not clear about the monitoring meter’s details including type, accuracy class etc. Corrective action sought. 2. Monitoring equipment with their location and sample evidence for the accuracy class of the meter is found missing in section B.7.1 of PSF. Provide detailed information related to monitoring equipment as project is already commissioned. 3. PO shall submit sample evidence for all monitoring parameter mentioned under section B.7.1 of PSF the project activity. 4. PO shall check and confirm the correctness of the method mentioned for Mismatch in the Monitoring Period and the Billing Period and the correctness of the apportioning procedure mentioned in section B.7.4 of PSF Thus, corrective action sought.				
Project Owner’s response				**Date:** 05/06/2023
1. Meter’s details like main meter and check meter number, meter type and accuracy class etc. included in the revised PSF under the section B.7.1. 2. Detailed information related monitoring equipment has been included in the section B.7.1 of the PSF. 3. Sample evidence for all monitoring parameter mentioned under section B.7.1 of PSF the project activity has been submitted along with this submission. 4. The method mentioned for Mismatch in the Monitoring Period and the Billing Period has been corrected in section B.7.4.				
Documentation provided by Project Owner				
1. Revised PSF V2.0 3. Sample JMR and Calibration certificate				

GCC Project Verifier assessment	**Date:** 27/06/2023
1. PO has updated the monitoring meter details including the type, accuracy class etc.in the section 7.1 of the PSF. Thus acceptable to VVB team. 2. PO has updated the Monitoring equipment with their location and detailed information related to monitoring equipment in the section 7.1 of the PSF. PO has submitted the Calibration certificates for the accuracy class. 3. PO has submitted the JMR for the monitoring parameter mentioned under section B.7.1 of PSF the project activity and found acceptable. 4. Method mentioned for Mismatch in the Monitoring Period and the Billing Period in the section B.7.4 is correct. Thus, comment #04 is Open.	
Project Owner's response	**Date:** 05/07/2023
Method mentioned for Mismatch in the Monitoring Period and the Billing Period in the section B.7.4 is revised.	
Documentation provided by Project Owner	
GCC Project Verifier	**Date:** 07/07/2023
Method mentioned for the mismatch in monitoring period and billing period in section B.7.4 of revised PSF is found correct and acceptable is assessment team. Thus, CAR# 04 is closed.	

CAR ID	05	**Section no.**	D.4	**Date:** 28/02/2023
Description of CAR				
PO requested to submit supporting document for the Start Date of the project activity. Kindly submit.				
Project Owner's response				**Date:** 05/06/2023
Commissioning certificate has been submitted as supporting for the start date of the project activity.				
Documentation provided by Project Owner				
Commissioning certificate				
GCC Project Verifier assessment				**Date:** 27/06/2023
PO has submitted the Commissioning certificate dated 16/04/2021 which is issued by Government of Puducherry, Electricity Department. VVB Team verified that Commissioning date is inline with the Start date of the project activity in the section C.1 of the PSF. Thus, CAR # 05 is closed.				

CAR ID	06	**Section no.**	D.3.5	**Date:** 28/02/2023
Description of CAR				
• PO requested to provide value for default benchmark estimation as per the CDM appendix reference mentioned in section B.5 of PSF. • PO has demonstrated additionality in section B.5 of the PSF. However, in order to verify the assumption considered for the same. Supporting document i.e., DPR, Financial records, PPA, loan sanction letter etc and source link of data mentioned in section B.5 are missing. Corrective action sought.				
Project Owner's response				**Date:** 05/06/2023
1. Section B.5 has been revised and default value considered for calculation of Benchmark and version used at the time of investment making decision is now in line with the CDM appendix reference. 2. Section B.5 has been revised and Supporting documents i.e., DPR, PPA, loan sanction letter has been submitted along with this submission and now source link data mentioned in the section B.5.				
Documentation provided by Project Owner				
DPR, PPA, loan sanction letter				

GCC Project Verifier assessment	Date: 27/06/2023
1. PO has provided the value for default benchmark estimation as per the CDM appendix reference mentioned in section B.5 of PSF. VVB Team verified that value for default benchmark estimation is inline with Tool 27," of the Investment Analysis". 2. PO has submitted the DPR dated May 2018 issued by Sgurr energy sustainable Engineering Worldwide, Power Supply Agreement between Waaree PV Technologies Private Limited and Chemfab Alkalis Limited and Loan Sanction Letter dated 09/09/2019 found inline with the project activity. PO has also attached source link data in the section B.5. . Thus, CAR #06 is closed.	

CAR ID	07	Section no.	D.6	Date: 28/02/2023
Description of CAR				
PO requested to submit all supporting documents for the Local Stakeholders Consultation conducted including invitations and MoMs of the meetings & outcomes of the meetings. Kindly submit.				
Project Owner's response				**Date:** 05/06/2023
All supporting documents for the Local Stakeholders Consultation such as invitation, and MoMs of the meetings & outcomes of the meetings has been submitted to verifier along with this submission.				
Documentation provided by Project Owner				
Invitation notice, MoMs of the meetings & outcomes of the meetings documents				
GCC Project Verifier assessment				**Date:** 27/06/2023
PO has submitted submit all supporting documents for the Local Stakeholders Consultation conducted including invitations, MoMs of the meetings, Grievance register and Attendance sheet and Feedback form. Thus, CAR #07 is closed.				

Table 2.

CAR ID	08	Section no.	D.11	Date: 27/01/2023
Description of CAR				
The project owner shall review & revise the UN SDGs for the positive and negative impacts. Corrective action is sought.				
Project Owner's response				**Date:** 05/06/2023
UN SDGs for the positive and negative impacts has been revised as per Environment and Social Safeguards Standard – V3.0.				
Documentation provided by Project Owner				
GCC Project Verifier assessment				**Date:** 27/06/2023
Social safeguards of Section E.2 is not inline with the Environment and Social Safeguards Standard V3.0. Thus, CAR #08 is Open				
Project Owner's response				**Date:** 05/07/2023
Social safeguards of Section E.2 is revised and inline with the Environment and Social Safeguards Standard V3.0.				
Documentation provided by Project Owner				
GCC Project Verifier				**Date:** 27/06/2023
PO has now revised the section E.2 of the PSF and now inline with the environment and social safeguards standard V3.0. now acceptable to assessment team.				

Table 3. FARs from this Project Verification

FAR ID	01	Section no.	D.7	Date: 23/06/2023
Description of FAR				
Host country Letter of Authorization (HCLOA) from the host country's national focal point or focal point designee for CORSIA will be submitted along with the submission for a request for the first or subsequent issuance of ACCs.				
Project Owner's response				**Date:** DD/MM/YYYY
-				
Documentation provided by Project Owner				

GCC Project Verifier assessment	**Date:** DD/MM/YYYY

Appendix 5. Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-Harm Risk Assessments in the PSF and GCC Verifier's conclusion

Impact of Project Activity on		**Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards**								**Project Owner's Conclusion**		**GCC Project Verifier's Conclusion** **(To be included in Project Verification Report only)**
		Description of Impact *(positive or negative)*	**Legal/ voluntary corporate requirement / regulatory/ voluntary corporate threshold Limits**	**Do-No-Harm Risk Assessment (choose which ever is applicable)**			**Risk Mitigation Action Plans for aspects marked as Harmful**		**Performance indicator for monitoring of impact**	***Ex-ante* scoring of environmental impact**	***Explanation of the Conclusion***	**3rd Party Audit**
				Not Applicable	**Harmless**	**Harmful**	**Operational Controls**	**Program of Risk Management Actions**	**Monitoring parameter and frequency of monitoring**	**Ex-Ante scoring of the environmental impact (as per scoring matrix Appendix-02)**	**Ex- Ante description and justification/explanation of the scoring of the environmental impact**	**Verification Process**
Environmental Aspects on the identified categories[20] indicated below.	*Indicators for environmental impacts*	*Describe and identify anticipated and actual significant environmental impacts, both positive and negative from all sources (stationary and*	*Describe the applicable national regulatory requirements /legal limits / voluntary corporate limits related to the identified*	*If no environmental impacts are anticipated, then the Project Activity is unlikely to cause any*	*If environmental impacts exist, but are expected to be in compliance with applicable national regulatory /stricter voluntary corporate requirements and will be within*	*If negative environmental impacts exist that will not be in compliance with the applicable national legal/*	*Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to*	*Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., installation of pollution control*	*Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it*	*-1* *0* *+1*	*Confirm the score of environmental impact of the project with respect to the aspect and its monitored value in relation to legal /regulatory limits (if any) including basis of conclusion.*	*Describe how the GCC Verifier has assessed that the impact of the Project Activity against the particular aspect and in case of "harmful impacts" how has the project*

[20] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

		mobile) during normal and abnormal/emergency conditions, that may result from the construction and operations of the Project Activity, within and outside the project boundary, over which the Project Owner(s) has/have control.	*risks of environmental impacts.*	*harm (is safe) and shall be indicated as **Not Applicable***	*legal/ voluntary corporate limits by way of plant design and operating principles, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Harmless** /If the project has an positive impact on the environment mark it as "harmless" as well.*	*regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm (may be un-safe) and shall be indicated as **Harmful***	*reduce the risk of impacts that have been identified as '**Harmfu'l** at least to a level that is in compliance with applicable legal/regulator requirements or industry best practice or stricter voluntary corporate requirements*	*equipment) that will be adopted to reduce or eliminate the risk of impacts that have been identified as **Harmful**.*	*is harmless of harmful. The frequency of monitoring to be specified as well including the data source.*			*adopted Risk Mitigation Action Plans to mitigate the risks of negative environmental impacts to levels that are unlikely to cause any harm as well as the net positive impacts of the project with respect to the most likely baseline alternative.*
Reference to paragraphs of Environmental and Social Safeguards Standard		*Paragraph 12 (a)*	*Paragraph 13 (c)*	*Paragraph 13 (d) (i)*	*Paragraph 13 (d) (ii)*	*Paragraph 13 (d) (iii)*	*Paragraph 13 (e) (i)*	*Paragraph 13 (e) (ii)*	*Paragraph 12 (c) and Paragraph 13 (f)*	*Paragraph 22*		*Paragraph 24 and Paragraph 26 (a) (i)*
Environment - *Air*	*SO_x emissions (EA01)*	The solar power project does not cause any SOx emissions in the project scenario. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted SO_x emissions, on which data is not available and can't be quantified.	The Air (Prevention & Control of Pollution) Act 1981 stipulates thresholds for both ambient air quality as well as stack emissions.	Not Applicable expected to or does not cause any harm.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS (CPA)/2015-16; dated March 07,2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries. However, the in the baseline scenario (grid) some of the fossil fuel power plants may have emitted SOx emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this	No risks identified

											parameter will not be scored.	
	NO_x emissions (EA02)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries. However, the in the baseline scenario (grid) some of the fossil fuel power plants may have emitted NOx emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified
	CO_2 emissions (EA03)	The solar power project does not cause any CO_2 emissions in the project scenario. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted CO_2 emissions, which has been calculated by the combined	The Air (Prevention & Control of Pollution) Act 1981stipulates thresholds for both ambient air quality as well as stack emissions.	Not Applicable as no emissions occur in the project scenario and therefore is not expected to or does not cause any harm.	Harmless The overall impact is positive with respect to the baseline alternative.	Not Applicable	Not Applicable	Not Applicable	The generated electricity by the project activity will be continuously measured and the related CO_2 emission reduction will be calculated according to the underlying methodolog	+1	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of	The project will have a positive impact by Reducing measurable amount of CO_2 emissions. This amount of emission reduction will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the

		margin emission factor as mentioned in the PSF.							y A.M.S-I. D version-18.		industries. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted CO_2 emissions, which has been calculated by the combined margin emission factor as mentioned in the PSF. Therefore, emission reductions are expected to be reduced which will be regularly monitored and verified ex-post and therefore is eligible to be scored.	Project Verification Report.
	CO emissions (EA04)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted CO emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot	No risks identified

											be quantified and therefore this parameter will not be scored.	
	Suspended particulate matter (SPM) emissions (EA05)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted SPM emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified
	Fly ash generation (EA06)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White	No risks identified

											category of industries However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted fly ash emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	
	Non-Methane Volatile Organic Compounds (NMVOCs) (EA07)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate" for White category of industries However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted NM/VOCs emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified

	Odor (EA08)	Not Applicable	The Air (Prevention & Control of Pollution) Act 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate" for White category of industries However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted Odor emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored	No risks identified
	Noise Pollution (EA09)	Not Applicable	Noise (Regulation and Control) Rules 2000 amended in 2010)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No significant noise emission is expected from project activity during operational phase as there is no major equipment in solar project which generates noise	
Environment - *Land*	*Solid waste Pollution from Plastics (EL-01)*	Not Applicable	Plastic Waste (Management and Handling) Rules, 2016	Not Applicable	Not Applicable	No Action Required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No significant plastic waste is expected from the project activity during operational phase Hence, this parameter will not be scored.	

	Solid waste Pollution from Hazardous wastes (EL02)	Not Applicable	Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules[21], 2016	Not Applicable	Not Applicable	No Action Required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	As per MoEF&CC notification dated 01.03.2019 (G.S.R. 178(E)) the Occupier (developer) is not required to obtain authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Amendment, Rules, 2019 if they are exempted from obtaining consent under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981. However, Project Owner should ensure (through ESMS) proper disposal of Hazardous Waste (DG oil, if DG is installed) through actual user, waste collector or operator of the disposal facility, in accordance with the Central Pollution Control Board guidelines. Moreover, though not covered under the rule, the broken part of the solar plant is recommended to be sent back to the	No risks identified

[21] https://cpcb.nic.in/uploads/hwmd/March_Amendment_HOWM.pdf

											manufacture or an authorized recycler. therefore this parameter will not be scored.	
	Solid waste Pollution from Bio-medical wastes (EL03)	Not Applicable	Bio-medical Waste Management Rules, 2016	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	No significant bio-medical waste will be generated from the project activity. Hence, this parameter will not be scored.	No risks identified
	Solid waste Pollution from E-wastes (EL04)	e-waste pollution is anticipated through the operation of the project.	E-waste (Management and Handling) Rules	Not Applicable	Harmless	Not Applicable.	Records all electrical & electronics waste of projects sites and filling of return.	Project Owner is responsible to maintain records and filling of returns as per applicable law and as stated by Waaree PV Technologies Pvt. Ltd. Scrap Disposal Policy.	Quantity of E-waste discarded at the end of life time will be monitored and recorded.	0	Project Owner is responsible to maintain records of returned equipment's as per applicable law and have no significant impact.	No risks identified
	Solid waste Pollution from Batteries (EL05)	Not Applicable	Batteries (Management and Handling) Rules	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	No significant *Batteries* waste will be generated from the project activity. Hence, this parameter will not be scored.	No risks identified
	Solid waste Pollution from end of life products/ equipment (EL06)	Not Applicable	Solid Waste Management Rules, 2016	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Project Owner is responsible to maintain records and dispose all products after ending lifecycle as per applicable law. A self-attested declaration mentioning that the equipment waste from the end of project life will be disposed as per Solid Waste Management Rules, 2016 will be submitted	No risks identified

	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury) (EL07)	Not Applicable	In India, there are no comprehensive soil quality regulations and standards to ascertain the seriousness of contamination	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	No significant soil pollution from chemicals during operation phase of the project activity However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted soil emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified
	land use change (change from cropland /forest land to project land) (EL08)	Land use change of the project site may have negative impact if the land was a forestry or agricultural land previously.	Right to fair compensation and transparency in land acquisition Rehabilitation and resettlement act 2013.	Not Applicable	Harmless	No Action Required	Not Applicable	Not Applicable	The project activity is implemented in a barren land. No record is maintained for the same.	0	The project activity is implemented in a barren land and thus is harmless to the flora prevailing in the region.	No risks identified
Environment - *Water*	*Reliability/ accessibility of water supply (EW01)*	Not Applicable	The Water (Prevention & Control of Pollution) Act 1974	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Supply water from local body will be used and necessary approval to be obtained. However, the in the baseline scenario (grid) some of the fossil fuel power plants may have emitted accessibility of water emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this	No risks identified

											parameter will not be scored.	
	Water Consumption from ground and other sources (EW02)	Solar power projects use a modest amount of water for cleaning solar collection and reflection surfaces like mirrors, heliostats, and photovoltaic (PV) panels.However, the quantity is water used is very insignificant, particularly when compared with the baseline power plants.	Permission for abstraction of Ground water under Environmental (Protection) Act 1986	Not Applicable	Harmless	No Action Required	Not Applicable	The lifetime of the project activity is 25 years. The project Owner will not such a Groundwater compliance Ground water under Environmental (Protection) Act 1986	No record is being maintained for the use of ground water, although negligible amount of water is required for the project operation.	0	No ground water will be consumed in all sites of the project activity & necessary permission to be obtained from concerned local authority in case use ground water in future. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emitted water consumption emissions, on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified
	Generation of wastewater (EW03)	Not Applicable	The Water (Prevention & Control of Pollution) Act 1974	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	There is no significant effect as provisions of septic tank and soak pits will be provided onsite for treatment and disposal of sewage, thereby minimizing the impacts of wastewater discharge. Planning of toilets, soak pits and septic tanks, waste collection areas will be away from natural drainage channels However, in the baseline scenario (grid) some of the fossil fuel power plants may have	No risks identified

											generation of waste water on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	
	Wastewater discharge without/with insufficient treatment (EW04)	Not Applicable	The Water (Prevention & Control of Pollution) Act 1974	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	There is no significant effect as provisions of septic tank and soak pits will be provided onsite for treatment and disposal of sewage, thereby minimizing the impacts of wastewater discharge. Planning of toilets, soak pits and septic tanks, waste collection areas should be away from natural drainage channels However, the in the baseline scenario (grid) some of the fossil fuel power plants may have generation of waste water or its treatment on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	No risks identified
	Pollution of Surface, Ground and/or Bodies of	Not Applicable	The Water (Prevention & Control of Pollution) Act 1974	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	There is no significant effect as provisions of septic tank and soak pits will be provided onsite for treatment	No risks identified

	water (EW05)										and disposal of sewage, thereby minimizing the impacts of wastewater discharge. Planning of toilets, soak pits and septic tanks, waste collection areas should be away from natural drainage channels. However, in the baseline scenario (grid) some of the fossil fuel power plants may have emissions polluting the surface water on which data is not available and can't be quantified and therefore the emission reductions cannot be quantified and therefore this parameter will not be scored.	
	Discharge of harmful chemicals like marine pollutants / toxic waste (EW06)	Not Applicable	Costal Regulation Zone	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	The project is not located in the CRZ boundary defined in the CRZ Notification 2019. So, there is no marine environment nearby the project site, hence data is not available and can't be quantified and therefore this parameter will not be scored	No risks identified
Environment – *Natural Resources*	*Conserving mineral resources (ENR01)*	Not Applicable	In India, there are no conserving mineral resources regulations and	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	This is solar project activity and does not use any natural mineral, therefore this parameter will not be scored.	No risks identified

			standards to ascertain									
	Protecting/ enhancing plant life (ENR02)	Not Applicable	In India, there are no comprehensive regulations and standards to ascertain for protecting plant life	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	The project activity has been implemented in barren land and no trees have been removed from the site due to project activity, therefore this parameter will not be scored.	No risks identified
	Protecting/ enhancing species diversity (ENR03)	Not Applicable	In India, there are no comprehensive regulations and standards to ascertain for protecting plant life	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	The project activity has been implemented in barren land and no trees have been removed from the site due to project activity, therefore this parameter will not be scored.	No risks identified
	Protecting/ enhancing forests (ENR04)	Not Applicable	The Forest (Conservation) Act 1980 & 1981	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	No forest land has been used for the project activity.	No risks identified
	Protecting/ enhancing other depletable natural resources (ENR05)	Not Applicable	National Forest Policy (Revised) 1988	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	The project activity has been implemented in barren land and no trees have been removed from the site due to project activity or no other natural resource has been used to operate project activity therefore this parameter will not be scored.	No risks identified
	Conserving energy (ENR06)	Not Applicable	Energy Conservation Act 2001	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	All efficient products & instruments have been used in the project activity, hence no significant impact due to this.	No risks identified

											therefore, this parameter will not be scored	
	Replacing fossil fuels with renewable sources of energy (ENR07)	The project utilizes renewable solar resource to generate electricity which will replace the electricity generated by fossil fuel plants. (Impact as positive)	Energy Conservation Act 2001	Not Applicable	Harmless	No Action Required	Not Applicable	Not Applicable	Continuous measuring for electricity generation will be done	+1	The project is expected to supply an average of 19,287 MWh per year renewable electricity to grid.	The project will have a positive impact by managing solar PV modules waste in an appropriate manner and in compliance to the prevailing laws and regulations. This amount of managing waste will be monitored as per monitoring plan in the PSF section B.7.1 for the parameter $EG_{facility,y}$ and assessment of the same is provided section D.3.7 of the Project Verification Report.
	Replacing ODS with non-ODS refrigerants (ENR08)	Not Applicable	In India, there are no comprehensive regulations and standards to ODS & non ODS	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	No impact Therefore this parameter will not be scored.	No risks identified
	Others (ENR09)	Not Applicable	Not Applicable	Not Applicable	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable.	Not Applicable	No risks identified
	Add more rows if required											

Net Score:		**+2**
Project Owner's Conclusion in PSF:		The Project Owner confirms that the Project Activity will not cause any net harm to Environment.
GCC Project Verifier's Opinion:		The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to the environment.

Apendix 6. Matrix for Identifying Environmental Impacts, Establishing Safeguards and Performing Do-No-HarmRisk Assessments in the PSF and GCC Verifier's conclusion

Impact of Project Activity on	**Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards**						**Project Owner's Conclusion**		**GCC project Verifier's Conclusion** **(To be included in Project Verification Report only)**
	Description of Impact (*positive or negative)*	**Legal requirement /Limit, Corporate policies / Industry best practice**	**Do-No-Harm Risk Assessment** **(choose which ever is applicable)**			**Risk Mitigation Action Plans (for aspects marked as Harmful)**	**Performance indicator for monitoring of impact.**	**Ex-ante scoring of environmental impact**	**Explanation of the Conclusion**	**3rd Party Audit**
			Not Applicable	**Harmless**	**Harmful**	**Operational / Management Controls**	**Monitoring parameter and frequency of monitoring (as per scoring matrix Appendix-02)**	**Ex- Ante scoring of social impact of the project**	**Ex- Ante description and justification/explanation of the scoring of social impact of the project**	**Verification Process** **Will the Project Activity cause any harm?**

Social Aspects on the identified categories [22] indicated below.	*Indicators for social impacts*	*Describe and identify actual and anticipated impacts on society and stakeholders, both positive or negative, from all source during normal and abnormal/emergency conditions that may result from constructing and operating of the Project Activity within or outside the project boundary, over which the project Owner(s) has/have control*	*Describe the applicable national regulatory requirements / legal limits or organizational policies or industry best practices related to the identified risks of social impacts*	*If no social impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Not Applicable***	*If social impacts exist, but are expected to be in compliance with applicable national regulatory requirements/ stricter voluntary corporate limits by way of plant design and operating principles then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Harmless**), project having positive impact on society wrt. To the BAU / baseline scenario must also mark their aspect as **"harmless"***	*If negative social impacts exist that will not be in compliance with the applicable national legal/ regulatory requirements or are likely to exceed legal limits then the Project Activity is likely to cause harm and shall be indicated as **Harmful***	*Describe the operational or management controls that can be implemented as well as best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as **Harmful**.*	*Describe the monitoring approach and the parameters (KPI) to be monitored for each impact irrespective of whether it is harmless of harmful. The frequency of monitoring to be specified as well. Monitoring parameters can be quantitative or qualitative in nature along with the data source*	*-1* *0* *+1*	*Confirm the score of the social impacts of the project with respect to the aspect and its monitored value in relation to legal/regulatory limits (if any) including basis of conclusion*	*Describe how the GCC Verifier has assessed that the impact of Project Activity on social aspects (based on monitored parameters, quantitative or qualitative) and in case of "harmful aspects how has the project owner adopted Risk Mitigation Action / management actions plans and policies to mitigate the risks of negative social impacts to levels that are unlikely to cause any harm.* *Also describe the positive impacts of the project on the society as compared to the baseline alternative or BAU scenario.*
Reference to paragraphs of Environmental and Social Safeguards Standard		*Paragraph 12 (a)*	*Paragraph 13 (c)*	*Paragraph 13 (d) (i)*	*Paragraph 13 (d) (ii)*	*Paragraph 13 (d) (iii)*	*Paragraph 13 (e) (i)*	*Paragraph 12 (c) and Paragraph 13 (f)*	*Paragraph 23*		*Paragraph 24 and Paragraph 26 (a) (ii)*
Social - *Jobs*	*Long-term jobs (> 10 year) created/ lost (SJ01)*	The project creates long term job opportunities	There is no legal requirement from local	Not Applicable	Harmless	Not Applicable	Not Applicable.	Number of people employed by the project	+1	There is no mandatory law to generate permanent employment from the project activity, However,	The project operation has created new job opportunities in the area during operational

[22] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

		during operation.	authority to create permanent employment from the project activity		As the impact is positive in nature			will be monitored through checking payroll records or the social insurance		project Owner has decided to provide training to the local people & generate employment for local people. Therefore, this parameter will be scored.	phase of the project activity. The number of persons employed would be monitored through HR records and payroll records. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.
	New short-term jobs (< 1 year) created/ lost (SJ02)	The project creates short term job opportunities during construction.	There is no legal requirement from local authority to create permanent employment from the project activity	Not Applicable	Harmless As the impact is positive in nature	Not Applicable.	Not Applicable.	Local labor force will be employed during construction period.	+1	There is no mandatory law to generate permanent employment from the project activity, However, project Owner has decided to provide training to the local people & generate employment for local people. Therefore, this parameter will be scored.	The project operation has created new job opportunities in the area during operational phase of the project activity. The number of persons employed would be monitored through HR records and payroll records. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.
	Sources of income generation increased / reduced (SJ03)	The project creates job opportunities for local people.	There is no legal requirement from local authority to create permanent employment from the project activity	Not Applicable	No Action Required	No Action Required	Not Applicable	Not Applicable	0	Employment will be provided to local people wherever possible, However, this parameter will not be scored.	No risks identified
	Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04)	Avoiding discrimination while hiring people results in avoiding conflicts between employees and with the employer.	IFC Performance Standard-2: Labour and Working conditions	Not Applicable	No Action Required	No Action Required	Not Applicable	Not Applicable	0	The project owner will not make employment decisions based on personal characteristics unrelated to inherent job requirements. The project will base the employment relationship on the principle of equal opportunity and fair treatment and will not	No risks identified

	(human rights)									discriminate with respect to any aspects of the employment relationship. The project will take measures to prevent and address harassment, intimidation, and/or exploitation, especially regarding women. Therefore, this parameter will not be scored.	
Social - *Health & Safety*	*Disease prevention (SHS01)*	This is a renewable energy-based power generation plant through solar energy which is clean energy and does not emit any gasses or chemicals impacting the livelihood. There is no impact.	In compliance with the EHS policy if require	Not Applicable	Harmless	Not Applicable	Not Applicable	At plant site no harmful gases or chemicals that would negatively affect the surrounding environment or livelihoods.	0	The solar plant site does not release any harmful gases or chemicals that would negatively affect the surrounding environment or livelihoods. As a result, the project owner does not need to consider this parameter as it does not pose any impact.	No risks identified
	Occupational health hazards (SHS02)	There is a possibility of physical hazards in project sites due to human intervention or technical failure or emergency	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Reducing / increasing accidents/Incidents/fatality (SHS03)	There is a possibility of accidents/incidents/ near miss in project sites due to human intervention or technical failure or emergency.	The Factories Act, 1948 & EHS policy of Project Owner	Not Applicable	Harmless	Not Applicable	Establishing EHS Guidelines Imparting Trainings, Keeping Sign boards Providing PPE Kits	Health & safety training to be provided to all the workers during both construction and operation phase and prior to start of work, workers will be informed about the related safety	0	The project owner will provide regular safety training to their workers about the accident hazards and risk related to specific works and preventive measures for avoiding accidents at site Therefore this parameter will not be scored.	No risks identified

								risks and precautions to be taken which may cause injury to hand shall be provided suitable hand gloves Identificatio n and Risk Assessment (HIRA)			
	Reducing / increasing crime (SHS04)	The project activity is the installation of solar power plant. There is no possibility of crime due to the operation of the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Reducing / increasing food wastage (SHS05)	The project activity is the installation of solar power plant. There is no possibility of food wastage due to the project activity	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Reducing / increasing indoor air pollution (SHS06)	This is a renewable energy power generation project through solar power and supplying electricity to the national grid. Hence there is no impact on indoor air pollution	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Efficiency of health services (SHS07)	The project activity is the installation of	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified

		solar power plant. There is no involvement of health services due to the project activity.									
	Sanitation and waste management (SHS08)	The Project Owner has used Proper Practices for the Sanitation and waste management	Hazardous and Other Wastes (Management and Transboundary Movement) Amendment Rules, 2016	Not Applicable	No Action Required	No Action Required	Not Applicable	Sanitation and Waste management Facilities Provided by the Project Owner	0	As per MoEF&CC notification dated 01.03.2019 (G.S.R. 178(E)) the Occupier (developer) is not required to obtain authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Amendment, Rules, 2019 if they are exempted from obtaining consent under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981. However, Project Owner should ensure proper disposal of Hazardous Waste (DG oil, if DG is installed) through actual user, waste collector or operator of the disposal facility, in accordance with the Central Pollution Control Board guidelines. Septic tank and soak pits will be provided onsite for treatment and disposal of sewage, thereby minimizing the impacts of wastewater discharge. Planning of toilets, soak pits and septic tanks, waste collection areas should be away from natural drainage channels Therefore this parameter will not be scored.	No risks identified
	Other health and safety issues (SHS09)	The project activity is the installation of solar power plant. There is no involvement	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified

		other health and safety issues due to the project activity.									
Social - *Education*	*specialized training / education to local personnel (SE01)*	The project owner provides job related training according to the positions	There is no legal requirement from local authority to provide training to local people	Not Applicable	Harmless As the impact is positive in nature	Not Applicable	Not Applicable	Training records/evidence for the training would be maintained by the project owner	+1	The project Owner will provide regular safety training to their workers about the accident hazards and risk related to specific works and preventive measures for avoiding accidents at site Therefore this parameter will be scored.	The project management has regularly organized numbers of skill trainings at the project activity site. The number of trainings would be monitored through training attendance records and photos. This will be monitored as per monitoring plan in the PSF section B.7.1 and assessment of the same is provided section D.3.7 of the Project Verification Report.
	Educational services improved or not (SE02)	The project activity is the installation of solar power plant. There is no involvement educational services due to the project activity.	EHS policy of Project Owner	Not Applicable	No Action Required	No Action Required	Not Applicable	Not Applicable	0	Project Owner should take initiative for Promotion of education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects. This parameter will not be scored.	No risks identified
	Project-related knowledge dissemination effective or not (SE03)	Project activity transfers knowledge on new renewable energy technology.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Other educational issues (SE03)	The project activity is the installation of solar power plant. There is no involvement other educational issues due to	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified

		the project activity.									
Social - *Welfare*	*Improving/ deteriorating working conditions (SW01)*	The project activity is the installation of solar power plant. There is no possibility of deteriorating working condition due to the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Community and rural welfare (indigenous people and communities) *(SW02)*	The project activity is the installation of solar power plant which creates positive impact on community and works for rural welfare.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Poverty alleviation (more people above poverty level) (SW03)	The project activity involves the generation of employment which results in poverty alleviation.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Improving / deteriorating wealth distribution/ generation of income and assets (SW04)	The project activity involves the generation of employment.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Increased or / deteriorating municipal revenues (SW05)	The project activity is the installation of solar power plant. There is no involvement of municipal revenues due to the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified

	Women's empowerment (SW06) *(human rights)*	Project activity provides equal opportunity to women.	National Gender policy for women empowerment 2001	Not Applicable	No Action Required	No Action Required	Not Applicable	Not Applicable	0	Project Owner will take initiative for Promoting gender equality, empowering women, and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups etc. Therefore, this parameter will not be scored.	No risks identified
	Reduced / increased traffic congestion (SW07)	The project activity is the installation of solar power plant. There is no involvement of traffic congestion due to the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Exploitation of Child labour *(human rights)* *(SW08)*	The project activity is the installation of solar power plant. There is no involvement of child labour due to the project activity.	The Child Labour (Prohibition and Regulation) Act, 1986	Not Applicable	No Action Required	No Action Required	Not Applicable	Not Applicable	0	The project will not employ children in any manner that is economically exploitative or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child in any way. National laws related to employment of minors are to be followed. No person under the age of 14 is to be allowed to work on the site according to Indian Child Labour Law. Therefore, this parameter will not be scored.	No risks identified
	Minimum wage protection *(human rights) (SW09)*	The project activity is the installation of solar power plant. Employees are paid as per minimum wage rule during the construction and operation phase of the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified

	Abuse at work place (with specific reference to women and people with special disabilities / challenges) *(human rights) (SW10)*	Avoiding of abuse at workplace ensures safe working environment for all the workers.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Other social welfare issues (SW11)	The project activity is the installation of solar power plant. There is no involvement of other social welfare issues due to the project activity.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Avoidance of human trafficking and forced labour *(human rights)* *(SW12)*	Avoiding of human trafficking and forced labour at workplace ensures safe working environment for all the workers.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Avoidance of forced eviction and/or partial physical or economic displacement of IPLCs *(human rights)* *(CW13)*	Avoidance of forced eviction results in community welfare.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Provisions of resettlement and human settlement displacement *(human rights)* *(CW14)*	Avoidance of resettlement and human displacement results in community welfare.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	No risks identified
	Add more rows if required										

Net Score:	+3
Project Owner's Conclusion in PSF:	The Project Owner confirms that the Project Activity will not cause any net harm to society.
GCC Project Verifier's Opinion:	The GCC Verifier certifies that the Project Activity is not likely to cause any net harm to the society.

Appendix 7. Matrix for Demonstration of Contribution of Project to Sustainable Development

UN-level SDGs	**UN-level Target**	**Declared Country-level SDG**	**Defining Project-level SDGs**				**GCC Project Verifier's Conclusion** (To be included in Project Verification Report only)	
			Project-level SDGs	**Project-level Targets/Actions**	**Contribution of Project-level Actions to SDG Targets**	**Monitoring**	**Verification Process**	**Are Goal/ Targets Likely to be Achieved ?**
Describe UN SDG targets and indicators *See: https://unstats.un.org/sdgs/indicators/indicators-list/*	*Describe the UN-level target(s) and correspo-nding indicator no(s)*	*Has the host country declared the SDG to be a national priority? Indicate Yes or No*	*Define project-level SDGs by suitably modifying and customizing UN/ Country-level SDGs to the project scope or creating a new indicator(s). Refer to previous*	*Define project-level targets/actions in line with nee project level indicators chosen. Define the target date by which the project Activity is expected to achieve the project-level SDG target(s).*	*Describe and justify how actions taken under the Project Activity are likely to result in a direct positive effect that contributes to achieving the defined project-level SDG targets*	*Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG indicator and its correspon ding target, frequency of*	*Describe how the GCC Verifier has verified the claims that the project is likely to achieve the identified Project level SDGs target(s).*	*Describe whether the project-level SDG target(s) is likely to be achieved by the target date (Yes or no)*

			column ofr guidance.				*monitoring and data source*		
Goal 1: End poverty in all its forms everywhere	NA	NA	NA	NA	NA	NA	NA		
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	NA	NA	NA	NA	NA	NA	NA		
Goal 3. Ensure healthy lives and promote well-being for all at all ages	NA	NA	NA	NA	NA	NA	NA		
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	NA	NA	NA	NA	NA	NA	NA		
Goal 5. Achieve gender equality and empower all women and girls	NA	NA	NA	NA	NA	NA	NA		
Goal 6. Ensure availability and sustainable management of water and sanitation for all	NA	NA	NA	NA	NA	NA	NA		
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable	Yes	Quantity of net electricity supplied to the grid by project activity in year y	Net generation 19,287 MWh (average) Annually	7.2.1 Renewable energy share in the total energy consumption	Contribute renewable energy share in total grid energy consumption	The net electricity supplied to the grid by the project activity is continuously monitored through energy meter (main and check meter) installed at the sub-station. The	This project isrenewable solar po werproject started operation from 24/03/2021 and same was verified with commissioning certificates provided by the project owner. The generated	Yes

	energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology. 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support						meters remain under the custody of state utility	power from theproject activityis the cleanenergy and continuously monitored by the energy meters installed at the site and included in the monitoring plan in the PSF.	
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.5 By 2030, achieve full and productive	Yes	Project activity supports creation of short term and long-term	Project creates new employment and generates income for	Project creates new employment and generates income for	1. Employment per the national labour and	Project owner monitors the implantatio n of the	This is andirect positive impact of theproject activity, which will	Yes

	employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers.		job opportunities during the construction and operation of the project activity. Supports economic productivity through technology upgradation and innovation through training of labour in high intensive sector. Project protects labour rights and promotes safe and secure working environments. Supports a transition to a low-carbon society through employment training for former fossil fuel industry employees	people during Under Construction Phase and During Operational of the project. Through Project activity economic development has been achieved in the project location by creating opportunities to the other allied services and indirect employment. Refer section B.7.1	during the project lifetime.	company law. 2. Maintains company HR policy to create standard operating procedures (SOPs) to follow and maintain safe and secure work environment 3. Paying the wages as per the minimum wages act of the country.	policies and employee grievances if any through the separate HR manager and site in charge. Quantity of employment will be monitored through employment records.	helpto reduce unemployment in the host country, This parameter is verifiable during the monitoring period. The number of permanent jobs created by the project parameter willbe monitored and Payroll/ HR records will be used to monitor this parameter. The relevant monitoring plan is included in the section B.7.1 of the PSF also the assessment ofthe same has been providedD. 3.7 of PVR.	

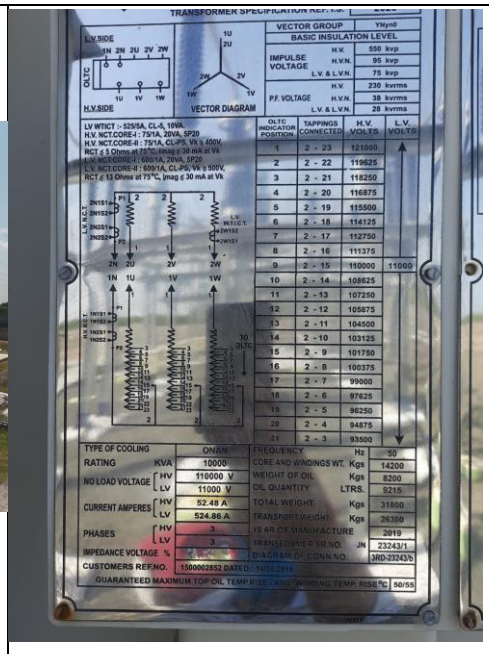
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 10. Reduce inequality within and among countries	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 12. Ensure sustainable consumption and production patterns	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 13. Take urgent action to combat climate change and its impacts	13.2 Integrate climate change measures into national policies, strategies and planning 13.2.2 Total greenhouse gas emissions per year	Yes	Emission reductions achieved per year	17,946 tCO_2e (Average) per year	13.2.2 Total greenhouse gas emissions per year	Emission reduction achieved per year	Electricity produced by the renewable generating unit multiplied by an emission factor	This is direct positive impact of the project which will avoid around 17,946 tCO_2 annual average overthe crediting period. The generated power from theproject activityis the cleanenergy and continuously monitored by the energy meters installed at the site and included in the monitoring	Yes

								plan in the PSF	
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	NA	NA	NA	NA	NA	NA	NA	NA	NA

SUMMARY	**Targeted**	**Likely to be Achieved**
Total Number of SDGs	**3**	**3**
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF	**Silver**	**Silver**

Appendix 08: Project Onsite and meters Photographs

	
Inverter Name Plate Verification	Inverter Name Plate Verification
	

	
Monitoring Equipment (Bidirectional Energy Meterinstalled at Site)-Main Meter	Monitoring Equipment (Check meter installed at site)
	
Switchyard and Transformer name plate	

Onsite modules location image

DOCUMENT HISTORY

Version	Date	Comment
V 3.1	31/12/2020	▪ The name of GCC Program's emission units has been changed from "Approved Carbon Reductions" or ACRs to "Approved Carbon Credits" or ACCs.
V 3.0	23/08/2020	▪ Revised version released on approval by the Steering Committee as per the GCC Program Process; ▪ Revised version contains the following changes: ○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); ○ Considered and addressed comments raised by the Steering Committee: ➢ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and ➢ electronic consultations EC01-Round 04 (17.08.2020 – 22.08.2020). ▪ Feedback from the Technical Advisory Board (TAB) of ICAO on GCC submissions for approval under CORSIA[23];
V 2.0	25/06/2019	▪ Revised version released for approval by the GCC Steering Committee. ▪ This version contains details and information to be provided, consequent to the latest worldwide developments (e.g., CORSIA EUC).
v1.0	01/11/2016	▪ Initial version released for approval by the GCC Steering Committee under GCC Program Version 1

[23]See ICAO recommendation for conditional approval of GCC at https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt_TAB_Report_Jan_2020_final.pdf

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