GLOBAL CARBON COUNCIL

Driving Climate Actions

Project Verification Report

V3.1 - 2020

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COVER PAGE Project Verification Report Form (PVR)	
BASIC INFORMATION	
Name of approved GCC Project Verifier / Reference No. (also provide weblink of approved GCC Certificate)	Carbon Check (India) Private Limited. /GCCV004/01 http://globalcarboncouncil.com/wp-content/uploads/2021/10/carbon-check-india-private-limited-ccipl.pdf
Type of Accreditation	☐ Individual Track[1] ☒ CDM Accreditation E-0052 https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0052 Valid from 28/03/2019 until 01/06/2024 ☐ ISO 14065 Accreditation-GH004
Approved GCC Scopes and GHG Sectoral scopes for Project Verification	GCC Scope • Green House Gas (GHG# - ACC) • Environmental No-harm (E+) • Social No-harm (S+) • Sustainable Development Goals (SDG+) GHG Sectoral Scope 1. Energy (renewable/non-renewable sources)
Validity of GCC approval of Verifier	08/03/2023 to 31/05/2024
Title, completion date, and Version number of the PSF to which this report applies	**Title:** - Song Luy 1 Solar Power Plant project **Completion Date:** - 05/12/2023 **Version:** - 05
Title of the project activity	Song Luy 1 Solar Power Plant project
Project submission reference no. (as provided by GCC Program during GSC)	S00736

[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.

Eligible GCC Project Type[2] as per the Project Standard (Tick applicable project type)	☒ **Type A:** ☐ Type A1 ☒ Type A2 (Sub-Type 1) ☐ **Type B – De-registered CDM Projects:** ☐ Type B1 ☐ Type[3] B2
Date of completion of Local stakeholder consultation	Local stakeholder consultation conducted on 03/05/2018.
Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.	19/12/2022- 02/01/2023 Global Stakeholders Consultation - Global Carbon Council
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners)	Binh Thuan Solar Power Investment Joint Stock Company Kosher Climate India Private Limited
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Mr. Narendra Kumar Ramaraj **Designation:** Operations Head **Email:** narendra@kosherclimate.com
Country where project is located	Viet Nam
GPS coordinates of the Project site(s)	Latitude: 11°11'47"N (11.1963°) Longitude: 108°19'55"E (108.3319°)
Applied methodologies (approved methodologies of GCC or CDM can be used)	CDM Methodology: ACM0002 Grid-connected electricity generation from renewable sources, Version 21.0
GHG Sectoral scopes linked to the applied methodologies	GHG Sectoral Scope 1- Energy Industries (Renewable/Non-Renewable sources)
Project Verification Criteria:	☒ ISO 14064-2, ISO 14064-3

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

[3] GCC Project Verifier shall conduct Project Verification for all project types except B_2.

Mandatory requirements to be assessed	☒ GCC Rules and Requirements ☒ Applicable Approved Methodology ☒ 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)
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 Carbon Check (India) Private Limited, certifies the following with respect to the GCC Project Activity Song Luy 1 Solar Power Plant Project in Viet Nam. ☒ The Project Owner has correctly described the Project Activity in the Project Submission Form (version 5.0, dated 05/12/2023) /01-d/ including the applicability of the approved methodology CDM Methodology ACM002, version 21.0 /B01/ and meets the methodology applicability conditions 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 reductions estimates correctly and conservatively. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated 49,720 tCO_{2e} annually and 497,202 tCO_2 for the 10 years crediting period as indicated in the PSF /01-d/ (Version 5.0, dated 05/12/2023), 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 3 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	Reference number: - CCIPL1699/GCC/VAL/SL1SPPP/20/12/2022 Version: - 01.1 Date of Approval: - 08/12/2023
Name of the authorised personnel of GCC Project Verifier and his/her signature with date	Priya Suman, Compliance Officer Signature: Priya Suman Date: 08/12/2023

[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

Kosher Climate India Private Limited has appointed the Verification Body, Carbon Check (India) Private Ltd., to perform an independent project verification of the Project "Song Luy 1 Solar Power Plant Project" in the Bac Binh district, Binh Thuan province in Viet Nam (hereafter referred to as "project activity"). This report summarizes the findings of verification of the project, performed based on the GCC rules and requirements as well as criteria given to provide for consistent project operations, monitoring and reporting. This report contains the findings and resolutions from the project verification and a verification opinion.

The Project activity will generate emission reductions by utilizing solar energy via the PV panels for production of renewable electricity and feeding the electricity into the national grid of Viet Nam. The average annual electricity supplied by the project activity to the national grid of Viet Nam is 60,413 MWh/year and it is translating into emission reductions of around 49,720 tCO_{2e} per year.

The project also contributes to Environmental No-net-harm Label (E+), Social No-net-harm Label (S+), CORSIA requirements (C+) and 3 nos. of United Nations Sustainable Development Goals (SDG+) i.e., SDG 7, 8 and 13.

The purpose of the project verification is to have a thorough and independent assessment of the proposed Project Activity against the applicable GCC rules and requirements, including those specified in the Project Standard /B02-1/ applied methodology /B01/, methodological tools /B04, B05, B06, B07, B08/ and any other requirements, in particular, the project's baseline, monitoring plan and the host Party criteria. These are verified to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Verification requirement for all GCC projects activity is necessary to provide assurance to stakeholders of the quality of the Project Activity and its intended generation of Approved Carbon Credits (ACCs).

Location

The Proposed Project Activities are located in the Bac Binh district, Binh Thuan province in Viet Nam.

Project Activity	Physical Address	Latitude	Longitude
Project Activity	Song Luy commune, Bac Binh district, Binh Thuan province	11°11'47"N (11.1963°)	108°19'55"E (108.3319°)

Scope of the GCC project verification

The project verification scope is defined as the independent and objective review of the project submission form, initial PSF version 02, dated 13/12/2022 /01-a/ respectively and final project submission form, version 05, dated 05/12/2023 /01-d/ and listed for global stakeholder consultation on GCC website with reference no S00736[6]. The PSF is reviewed against the

[6] Project Details (globalcarboncouncil.com)

relevant criteria and decisions by the GCC, including the CDM approved baseline and monitoring methodology ACM0002, version 21.0 /B01/. The verification team has, based on the recommendations in the GCC Project Standard, Version 3.1 /B02-1/ and Project Verification Standard Version 3.1 /B02-2/ employed a rule-based approach, focusing on the identification of significant risks for project implementation and the generation of ACCs. The verification is not meant to provide any consulting towards the project (owner). However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the program design.

While carrying out the verification, CCIPL determines if the PSF complies with the requirements of the applicability conditions of the selected methodology ACM0002, version 21.0 /B01/, guidance issued by the GCC and assess the claims and assumptions made in the PSF, version 2.0 /01-a/ without limitation on the information provided by the project Owner.

Verification Process

Strategic risk Analysis and delineation of the GCC project verification: -

CCIPL employed the following GCC project verification (termed as “Project Verification” as per GCC) process:

1. Conflict of interest review at the time of contract review,
2. Selection of Audit Team at the time of contract review,
3. Kick-off meeting with the client,
4. Review of the draft PSF listed on GCC website for public consultation,
5. Development of the GCC project verification plan and sampling plan
6. Desktop review and evaluation of emission reduction calculations,
7. Follow-up interaction with the client and final statement and report development.

The GCC project verification process has utilized to gain an understanding of the: -

- Project’s design, GHG emission sources and reductions,
- Baseline determination and additionality,
- GHG monitoring plan,
- Environmental & Social impacts,
- Stakeholder’s consultation,
- SD indicators integrated with the project and
- Verify the collection and handling of data, the calculations that lead to the results, and the means for reporting the associated data and results.

Development of the GCC project verification Plan: -

The Audit Team formally documented its GCC project verification plan. The GCC project verification plan was developed based on discussion of key elements of the GCC project verification process during the kick-off meeting and as per the criteria of engagement. Client had the opportunity to comment on key elements of this plan for GCC project verification. Based on items discussed above and agreed upon with the client in the signed contract, the plan identified the CCIPL audit team members based on following:

- Reasonableness of assumptions, limitations, and methods that support a statement about the outcome of future activities as per GCC requirements and ,

• Standards of evaluation and reporting for the GCC project verification.

It also provides an outline of the GCC project verification process and established project deliverables.

The project verification consists of the following four phases: -

I. A desk review of the project submission form
   a. A review of the data and information
   b. Cross checks between information provided in the initial PSF, version 02 /01-a/ to final PSF, version 05 /01-d/ and information from sources with all necessary means without limitations to the information provided by the project participant.

II. Follow-up interviews with project stakeholders
   a. Interviews with relevant stakeholders in host country with personnel having knowledge with the project development.
   b. Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project owner.

III. Reference to available information relating to projects or technologies similar projects under verification and review based on the approved methodology ACM0002, version 21.0 /B01/ being applied of the appropriateness of formulae and accuracy of calculations.

IV. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The Verification team confirms that the contractual relationship signed between the Verification Body, CCIPL and the project owner, Kosher Climate India Private Limited on 20/12/2022 /26/. The team assigned to the GCC project verification meets the CCIPL's internal procedures including the GCC requirements for the team composition and competence. The GCC project verification team has conducted a thorough contract review as per GCC and CCIPL's procedures and requirements.

The report is based on the assessment of the PSF version 05 /01-d/ undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews and stakeholder interviews, review of the applicable / applied methodology /B01/ and their underlying formulae and calculations.

This report contains the details of the resolution of findings, and from the verification and a verification opinion on the proposed Project Activity is provided in the report as all the raised findings are successfully resolved by the project owner. Hereby confirm that the program design in the documents is sound and reasonable and meets the stated requirements and identified criteria.

Conclusion

The review of the PSF, version 02, supporting documentation and subsequent follow-up actions (on-site audit and interviews) have provided CCIPL with sufficient evidence to determine the fulfilment of stated criteria. CCIPL is of the opinion that the project activity "Song Luy 1 Solar Power Plant Project " in Viet Nam as described in the final PSF (Version 5.0, dated 05/12/2023) /01-d/ meets all relevant requirements of GCC and has correctly applied the CDM baseline and

monitoring methodology ACM0002. “Grid connected electricity generation from renewable sources; Version 21.0” /B01/.

The review of the initial PSF, version 02. /01-a/, to Final PSF, version 05 /01-d/ , supporting documentation and subsequent follow-up actions (On-site audit and interviews) have provided CCIPL with sufficient evidence to determine the fulfilment of the voluntary labels E+, S+ /B02-4/ and SDG+ with silver rating /B02-5/. Therefore, the project is being recommended to GCC Steering Committee for request for registration.

“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., v1.3 paragraph 22-23 /B02-6/, 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”.

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/ Technical Expert	IR	Mathew	Vijay	CCIPL	X	X	X	X
2.	Team Member	IR	Raychoudhury	Rishi Kishore	CCIPL	X	X	X	X
3.	Local Expert	IR	Ngoc Trang	Nguyen Hong	CCIPL	NA	X	X	NA

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	IR	Seshan	Ranganathan	CCIPL
2.	Approver	IR	Suman	Priya	CCIPL

Section C. Means of Project Verification

C.1. Desk/document review

The verification was performed primarily as a document review of the initial PSF, version 02 dated 13/12/2022 /01-a/ to revised / final PSF, version 5.0, dated 05/12/2023 /01-d/. The verification of information provided in the PSF was performed using the source of information provided by the project owner. Additionally, the cross checks were performed for information provided in the PSF using information from sources other than the verification sources, the verification team's sectoral or local expertise and, if necessary, independent background investigations.

List of all documents reviewed or referenced during the verification is provided in Appendix-3

C.2. On-site inspection

Duration of on-site inspection: 23/02/2023				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Discussions and review of: • Project Design • Project Technology • Project boundary • Applicability of methodology • Environmental Management Plan/ EIA • Local stakeholders meeting process • Management structure with Roles and Responsibilities • Project implementation schedule • Pre project (existing) scenario to meet the energy (heat and electricity) demand • Monitoring Plan • Socio-economic Impacts of the project activity • Sustainability aspects of the project (SDGs) • Baseline Scenarios and alternatives • Project additionality • Emission reduction calculations	Song Cau town, Phu Yen Province, Vitenam	23/02/2023	Vijay Mathew Rishi Kishore Raychoudhury Nguyen Hong Ngoc Trang

C.3. Interviews

No.	Interview			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	N Sunil	Mahima	Kosher Climate	23/02/2023	Project Description, Project affiliation and status, Additionality, Baseline Calculation, Regulatory requirements, Operation and Maintenance procedure, E+ and S+ requirements, SDG Parameters etc.	Vijay Mathew Rishi Kishore Raychoudhury Nguyen Hong Ngoc Trang
2.	Hang	Pham Minh	Kosher Climate	23/02/2023		
3.	Toan	Tran Van	Kosher Climate	23/02/2023		
4.	Chanh	Su Sanh	B- Solar	23/02/2023	Project Description, Baseline identification, Project Boundary, Baseline Calculation, Monitoring procedures & Calibration of meters, Operation and Maintenance procedure, Data recording and archiving, Emergency procedures, Safety Procedures etc. Local Stakeholder Consultation, Mode of Invitation, Agenda of the LSC, Consideration of Comments of LSC and Feedback mechanism, advantages and disadvantages of the project, E+ and S+ status, SDG status etc.	
5.	Trency	Hugnh Nhat	B- Solar	23/02/2023		
6.	Phu	Nguyen Sy	B- Solar	23/02/2023		

C.4. Sampling approach

No sampling approach is used for this project verification process.

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	CL 01	-	-
General description of project activity	A_1, A_2, B_1, B_2	CL 02	CAR 01	-
Application and selection of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	CAR 03, CAR 04	-
- Application of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	-	-
- Deviation from methodology and/or methodological tool	A_1, A_2, B_1, B_2	-	-	-
- 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	CL 03	CAR 05	-
- Estimation of emission reductions or net anthropogenic removals	A_1, A_2, B_1, B_2	-	CAR 06	-
- Monitoring plan	A_1, A_2, B_1, B_2	CL 04	CAR 07	-
Start date, crediting period and duration	A_1, A_2, B_1, B_2	-	-	-
Environmental impacts	A_1, A_2, B_1, B_2	CL 05	-	-
Local stakeholder consultation	A_1, A_2, B_1	CL 06	-	-
Approval & Authorization- Host Country Clearance	A_1, A_2, B_1, B_2	-	-	-
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	CL 07	CAR 08	-
Social Safeguards (S^+)	A_1, A_2, B_1			-
Sustainable development Goals (SDG^+)	A_1, A_2, B_1		CAR 09	-
Authorization on Double Counting from Host Country (only for CORSIA)	A_1, A_2, B_1	-	-	FAR 01
CORSIA Eligibility (C^+)		-	CAR 02	-
Total	17	07	09	01

Section D. Project Verification findings

D.1. Identification and eligibility of project type

Means of Project Verification	Desk Review and Interviews
Findings	CL 01 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	The GCC Project Verification team reviewed the PSF /01-d/ and confirms that the Project Owner determines the type of proposed GCC project activity as follows:

Parameters	Description	GCC Verifier Assessment
Type of Project	Type A2. These types of projects are prompt-start and had already started their operations as of 5 July 2020. Their start date of operations shall be after 1 January 2016 but before 5 July 2022	The start date of the project activity is 13/05/2019. GCC verifier has cross checked the PSF /01-d/ and the Commissioning certificate /06/ and conforms that the project is Type A2 since the project has started after 1 January but before 5 July 2022
Sub type	Sub-Type 1. The project is an existing operational project, not submitted to any Program, which have started operations after 1 January 2016.	The start date of the project activity is 13/05/2019. GCC verifier has cross checked the PSF /01-d/, declaration /23/ and the Commissioning certificate /06/ and conforms that the project

			is Sub Type 1 since the project has started after 1 January. GCC verifier has also cross checked with other programs /B09/ and found the project activity is not registered in any other registry.
	Start date of project activities	13/05/2019	As per the paragraph 38 of the project standard V3.1 /B02-1/, start of commercial operations has been considered as the start date. Hence project commissioning date (COD), on which project is connected to grid and started generating power and exporting to the grid there by started generating GHG emission reductions is considered as start date. The start date of project activity is 13/05/2019. GCC verifier has cross checked the PSF /01-d/ and the Commissioning certificate /06/ and conforms the start date of project activity
	Start date of Crediting period	13/05/2019 to 12/05/2029	GCC verifier has cross checked the PSF /01-d/ and the Commissioning certificate /06/ and conforms the start date of crediting period project activity
	Global stakeholder consultation	19/12/2022- 02/01/2023	Global Stakeholders Consultation - Global Carbon Council
	The project activity complies with the requirement of paragraph 11 of the GCC Project Standard (version 03.1) /B02-1/ and GCC clarification no.01 /B02-6/ and paragraph 25 (b) of GCC Project Verification Standard (version 03.1) /B02-2/.		

D.2. General description of project activity

Means of Project Verification	Desk Review and Interviews
Findings	CL 02, CAR 01 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.

Conclusion

The description of the project activity contained in the PSF /01-d/ can be considered transparent, detailed and provides a clear overview of the project. Its content was confirmed by means of document review and interviews to verify the accuracy and completeness of the project description.

Parameters	Details	GCC verifier Assessment
Name of the Project	Song Luy 1 Solar Power Plant Project	GCC verifier has cross checked the PSF /01-d/ and LOA /04/ and confirmed the name of the project.
Project developer	Binh Thuan Solar Power Investment Joint Stock Company	GCC verifier has cross checked the PSF /01-d/ and LOA /04/ and confirms the confirms the name of the project developer.
Capacity- DC Capacity- AC	46.7 MWp 39MW	GCC verifier has cross checked the commission certificate /06/, FRR /07/, PPA /10/, on-site notes /25/ and confirms the capacity of the project activity.
Purpose of the project	The purpose of the project activity is to generate electricity from solar energy. The electricity generated is supplied to the Provincial Viet Nam Electricity Corporation (EVN) i.e., Viet Nam national grid.	GCC verifier has cross checked the commission certificate /06/, FRR /07/, PPA /10/, on-site notes /25/ and confirms the purpose /18/ of the project activity.
Annual Generation	60,413 MWh	GCC verifier has cross checked the PSF /01-d/, FRR /07/ and ER sheet /02-c/ and confirms that the annual generation of the project activity.
Annual Degradation factor	0.7%	GCC verifier has cross checked the FRR /07/ and technical specification /16/ confirms the degradation factor as 0.7%.
Emission Reduction	497,202 tCO_2 for the whole crediting period	GCC verifier has cross checked the ER sheet /02-c/ and confirms the emission reduction for the project activity.

Since solar energy is clean energy, the project activity does not involve any grid connected power plants. The power generation from the project activity replaces the equal amount of power which otherwise would have been supplied from the grid connected to power plants dominated by use of fossil fuels. Thus, project activity helps in an average annual emission reduction of 49,720 tCO_2e/year for a period of 10 years.

The Proposed Project Activities are located in the Song Cau town, Phu Yen province in Viet Nam.

Project Owner	Latitude	Longitude
Binh Thuan Solar Power Investment Joint Stock Company	11°11'47"N (11.1963°)	108°19'55"E (108.3319°)

The same was confirmed by the measurement of co-ordinates using google earth software and GPS at the project site. The other details such as district and province name of the project location are checked during the physical on-site verification /25/; further, the solar project were cross checked with the commissioning certificate of the project activity and were found appropriate /06/.

Parameters	**Details**	**GCC verifier Assessment**
Type of Project	Solar Power project	GCC verifier has cross checked the commission certificate /06/, FRR /07/, PPA /10/, EPC Contract /08/, O & M contract /09/, and technical specification /16/.
Technology	Monocrystalline Silicon Solar Panels	
PV Modules	Make - GCL Solar; Model No – GCL-M6/72365	
Central Inverter	TMEIC - Solar Ware 1000-PVL-L1000EH, Capacity – 1000 KW	
Project Capacity	DC Capacity- 46.7 MWp AC Capacity- 39 MW	
Lifetime of the project	25 years	
Project Start date	13/05/2019	As per the paragraph 38 of the project standard V3.1, start of commercial operations has been considered as the start date. Hence project commissioning date (COD), on which project is connected to grid and started generating power and exporting to the grid there by started generating GHG emission reductions is considered as start date. The start date of the project activity is 13/05/2019. GCC verifier has cross checked the and found the start date is inline Commissioning certificate /06/.

The baseline scenario is that the electricity delivered to the grid by the project activity would be generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. The same complies with the applied methodology /B01/. The project is expected to generate and feed GHG free electricity to the connected national electricity grid of Viet Nam.

As stated in the PSF /01-d/, the project activity also voluntarily contributes to Environmental No-net-harm Label (E+), Social No net-harm Label (S+) and United Nations Sustainable Development Goals (SDG+).

As stated in the PSF /01-d/, the project activity also voluntarily contributes to Environmental No-net-harm Label (E+), Social No net-harm Label (S+) and United Nations Sustainable Development Goals (SDG+).

GCC labels applied	Environmental No-net-harm Label (E+), Social No-net-harm Label (S+), CORSIA requirements (C+) and United Nations Sustainable Development Goals (SDG+)
Environmental No-net-harm Label (E+) score	+7
Social No-net-harm Label (S+) score	+8
Number of United Nations Sustainable Development Goals (SDG+) opted	3

The project owner has described the GHG emission-reduction activity, including schematics, specifications and a description of how the project reduces GHG emissions. This is as per paragraph 36 of GCC Project Standard Version 03.1 /B02-1/ and cross checked with PSF /01-d/.

The Project Activity is a voluntary action by the project owner as confirmed by the verification team upon review of the PSF /01-d/ and on-site visit interviews/25/.

In accordance with paragraph 44 of GCC Project Standard (version 03.1) /B02-1/, the verification team has assessed the geographical boundary of the Project Activity, within which it will be implemented, and confirms that geographical boundary of the Project Activity comprises the following boundaries.

- The solar power plant itself
- The point of connection to Viet Nam national grid for sale of electricity.

This was checked and confirmed by reviewing the PSF /01-d/, on-site visit interviews with representatives of project owner.

As per the PSF /01-d/, start date of the Project Activity is 13/05/2019 (Start date of commercial operation of the Project- Commissioning Certificate) /06/. As per the paragraph 38 of the project standard V3.1, start of commercial operations has been considered as the start date. Hence project commissioning date (COD), on which project is connected to grid and started generating power and exporting to the grid there by started generating GHG emission reductions is considered as start date. The same is in accordance with requirements of paragraph 38 of GCC Project Standard (version 03.1) /B02-1/.

A crediting period is a fixed crediting period for the Project Activity, from 13/05/2019 to 12/05/2029 i.e., of 10 years. This is cross checked by PSF /01-d/ and conforms

	the requirement of paragraph 39 and paragraph 40(b) of GCC Project Standard Version 03.1 /B02-1/. CCIPL confirms that the description of the proposed Project Activity in the PSF is accurate , completed and it provides an understanding of the Project Activity.

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

D.3.1 Application of methodology and standardized baselines

Means of Project Verification	Desk Review and Interviews
Findings	CAR 03, CAR 04 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	The CDM methodology applied is ACM0002, version 21.0 /B01/. It is applicable to greenfield renewable energy power generation using solar photovoltaic modules. The applicability of the methodology could be confirmed by means of interviews with the Project owner representatives, physical site visit /25/ and document review. The applied methodology is correctly quoted and is identical to the version available on the UNFCCC website. The applied version of the baseline and monitoring methodology /B01/ is valid at the time of submission of the PSF for global stakeholder consultation. All applicability criteria in the methodology are assessed in the below table:

Applicability criteria of the methodology	Justification by PO	GCC verifier Assessment
This methodology is applicable to grid-connected renewable power generation project activities that: (a) install Greenfield power plant; (b) involve a capacity addition to (an) existing plant(s); (c) involve a retrofit of (an) existing plant(s)/unit(s); (d) involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) involve a replacement of (an) existing plant(s)/unit(s)	The project activity is a newly installed green field solar energy-based electricity generation project connected to the National grid. Therefore, it confirms to the said criteria.	GCC verifier has cross checked the EPC contract /08/, PPA /10/, Commissioning certificate /06/ and confirms that the project is a green field solar- renewable energy with the capacity of 39 MW AC capacity. Hence the methodology is applicable to the proposed project activity.
In case the project activity involves the integration of a BESS, the methodology is applicable to grid-connected renewable energy power generation project activities that: (a)Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an)	The project activity is the installation of a new grid connected renewable solar power project and does not involve the integration of a Battery Energy Storage System	GCC verifier has cross checked the EPC contract /08/, PPA /10/, Commissioning certificate /06/ and confirms that the project is a new grid connected renewable solar power project and does not involve the integration of Battery Energy Storage System. Hence, The applicability criteria is not applicable to the proposed project activity.

	existing solar photovoltaic1 or wind power plant(s)/unit(s); (c) Integrate a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s); (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s).	(BESS). This condition is not applicable for the project activity	
	The methodology is applicable under the following conditions: (a) Hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity; (c) In case of Greenfield project activities applicable under paragraph 5 (a) above, the project participants shall	The project activity is the installation of a new solar power plants without BESS integration. Therefore, the said criterion is not applicable.	GCC verifier has cross checked the EPC contract /08/, PPA /10/, Commissioning certificate /06/ and confirms that it is a grid connected renewable solar power project.. Hence, the applicability criteria is not applicable to the proposed project activity.

	demonstrate that the BESS was an integral part of the design of the renewable energy project activity (e.g. by referring to feasibility studies or investment decision documents); (d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies 2 may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section 5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the project renewable energy plant during a monitoring period. During the time periods (e.g. week(s), months(s)) when the BESS consumes more than 2 per cent of the electricity for charging, the project participant shall not be entitled to issuance of the certified emission reductions for the concerned periods of the monitoring period.		
	In case of hydro power plants, one of the following conditions shall apply: (a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple	The project activity is the installation of solar power plants/units. Therefore, the said criteria is not applicable	The proposed project activity is not a hydro power project. CCIPL project verification team confirmed the same during on-site visit /25/. Hence this condition is not applicable to the proposed project activity.

	reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (7) is greater than 4 W/m^2; or (c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m^2 ; or (d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m^2, all of the following conditions shall apply: (i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m^2; (ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity; (iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m^2 shall be: a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project. (a)		
	In the case of integrated hydro power projects, project proponent shall: (a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively	The project activity is the installation of a new solar power plants/units. Therefore, the said criteria is not applicable	The proposed project activity is not a hydro power project. CCIPL project verification team confirmed the same during on-site visit /25/. Hence this condition is not applicable to the proposed project activity.

	constitute to the generation capacity of the integrated hydro power project; or (b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability indifferent seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.		
	The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of	(c) The project activity is the installation of new solar power plants/units	GCC verifier has cross checked the EPC contract /08/, PPA /10/, Commissioning certificate /06/ and confirms that the project activity does not involve switching from fossil fuel to

	the project activity, since in this case the baseline may be the continued use of fossil fuels at the site. (b) Biomass fired power plants;	which does not involve switching of fossil fuels. (d) The project activity is the installation of new solar power plant and not biomass fired power plant. Therefore, the said criterion is not applicable.	renewable energy and is not a biomass fired power plant. CCIPL project verification team confirmed the same during the on-site visit /25/. Hence this condition is not applicable to the proposed project activity.
	In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	The project activity is the installation of new solar power plant/unit that does not involve retrofits, rehabilitations, replacements, or capacity additions. Therefore, the said criteria is not applicable.	GCC verifier has cross checked the EPC contract /08/, PPA /10/, Commissioning certificate /06/ and confirms that the project activity does not involve retrofits, rehabilitations, replacements or capacity addition. CCIPL project verification team confirmed the same during the on-site visit /25/. Hence this condition is not applicable to the proposed project activity.

Applicability criteria of the TOOL 07, version 7.0	**Justification by PO**	**GCC verifier Assessment**
The tool lists the following applicability criteria: (a) This tool 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-	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	The project activity involved the construction and operation of 39 MW solar power plant in Viet Nam. The electricity thus generated is being sold to Vietnamese national grid. In the absence of the project activity, the same amount of electricity (grid electricity) would be generated in the Viet Nam national grid - EVN(Viet Nam Electricity). Therefore, combined margin calculation applies to the Viet Nam national grid.

	side energy efficiency projects).	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" version 7.0.	
	Under this tool, 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, 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. Emission factor calculation was done in line with "*Tool to calculate the emission factor for an electricity system*" using data from Department of Climate Change - Ministry of Natural Resources and Environment, "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-TTBVTOD)"[7] and as per the tool, calculation of emission	Project owner has calculated the emission factor applying this applicability condition. As per para 25 of Project standard 3.1, the latest publication of emission factor by "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-TTBVTOD)-0.8230 tCO_2/MWh /27/" available at the time of GSC has been followed. This is accepted by the project verification team.

[7] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

		factor has been only considered grid connected plants. And the emission factor has been calculated accordingly.	
	In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country	The project activity is located in Viet Nam, a non-Annex I country. Therefore, this criterion is not applicable for the project activity	The electricity generated from the GCC project will be sold (100%) to Viet Nam National grid. Since the project electricity system is located in Viet Nam which is not an Annex I country (Date of ratification of Kyoto protocol by Viet Nam = 25th September, 2002), the project verification team has accepted the application of the tool to calculate the grid emission factor.
	Under this tool, the value applied to the C_{O2} emission factor of biofuels is zero.	Project Owner has used the combined margin grid emission factor from Department of Climate Change – Ministry of Natural Resources and Environment, "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-TTBVTOD)"[8] which has been calculated in line with Tool 07, to calculate the emission factor for an electricity	The project activity is a grid connected solar power project /06/. There is no biofuels related activity.

[8] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

	system, version 07.0 where the tool considers CO_2 emission of Biofuel as zero. Hence PO has considered the same. Therefore, this criterion is not applicable for the project activity	

Applicability criteria of the TOOL 01, version 7.0	**Justification by PO**	**GCC verifier Assessment**
The use of the "Tool for the demonstration and assessment of additionality" is not mandatory for project owners when proposing new methodologies. Project owners 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.	Since the applied is not a new methodology project owner has applied this tool for the demonstration additionality in compliance with the tool. Refer to section B.5 of the PSF /01-d/ for the detailed applicability of this tool and additionality assessment. Hence this tool is applicable	The step wise approach to establish additionality of the project activity is detailed in section B.5 of the PSF. Hence, the applicability criterion was found to be met.
Once the additionally tool is included in an approved methodology, its application by project owners using this methodology is mandatory.	In line with the methodology requirement Project owner has applied this tool for the demonstration of additionality assessment. Hence this tool is applicable	Project owner has applied the Tool for the demonstration and assessment of additionality, version 7, generation from renewable which is in line with the methodology ACM0002 Grid-connected electricity sources, version 21 /B01/.

Applicability criteria of the TOOL 27, version 12.0	**Justification by PO**	**GCC verifier Assessment**

	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.	Project activity applies Tool 01” Tool for the demonstration and assessment of additionality" version 07.0.0. Hence this tool is applicable.	The applicability criterion is met as the project activity applies the methodological tool “Tool for the demonstration and assessment of additionality /B05/.”
	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.	Applied methodology ACM0002 Grid - connected electricity generation from renewable sources, version 21.0 doesn’t specify any approach for the demonstration of Investment analysis. As per the methodology the additionality including investment analysis has been demonstrated as per the Tool 01: Tool for the demonstration and assessment of additionality” version 7.0.0 and Tool 27: Investment Analysis version 12.0 Hence Justified.	The applied methodology is ACM0002, Version 21 /B01/. It doesn’t contains requirements for the investment analysis that are different from those described in this methodological tool 27 Investment Analysis version 12.0 /B07/.

Applicability criteria of the TOOL 24, version 3.1	Justification by PO	GCC verifier Assessment
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", or baseline and monitoring methodologies that use the common practice test for the demonstration of additionality	Project activity applies Tool 01" Tool for the demonstration and assessment of additionality, version 07.0.0. Hence this tool is applicable.	The applicability criterion is met as the project activity applies the methodological tool "Tool for the demonstration and assessment of additionality /B05/."
In case the applied approved baseline and monitoring methodology defines approaches for the conduction of the common practice test that are different from those described in this methodological tool, the requirements contained in the methodology shall prevail.	Applied methodology ACM0002 Grid - connected electricity generation from renewable sources, version 21.0 doesn't specify any approach for the demonstration of common practice analysis. As per the methodology the additionality including common practice analysis has been demonstrated as per the Tool 01: Tool for the demonstration and assessment of additionality" version 07.0.0 and Tool 24: Common Practice Analysis version 3.1. Hence Justified.	The applied methodology is ACM0002, Version 21 /B01/. It doesn't defines approaches for the conduction of the common practice test that are different from those described in this methodological tool 24 Common Practice Analysis version 3.1/B06/.

Applicability criteria of the TOOL 05, version 3.0	Justification by PO	GCC Verifier Assessment

	If emissions are calculated for electricity consumption, the tool is only applicable if one out of the following three scenarios applies to the sources of electricity consumption: (a) Scenario A: Electricity consumption from the grid. The electricity is purchased from the grid only, and either no captive power plant(s) is/are installed at the site of electricity consumption or, if any captive power plant exists on site, it is either not operating or it is not physically able to provide electricity to the electricity consumer; (b) Scenario B: Electricity consumption from (an) off-grid fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants are installed at the site of the electricity consumer and supply the consumer with electricity. The captive power plant(s) is/are not connected to the electricity grid; or (c) Scenario C: Electricity consumption from the grid and (a) fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants operate at the site of the electricity consumer. The captive power plant(s) can provide electricity to the electricity consumer. The captive power plant(s) is/are also connected to the electricity grid. Hence, the electricity consumer can be provided with electricity from the captive power plant(s) and the grid	The project will import electricity from the grid. The electricity consumption of this project is purchased from the grid only. And Scenario A is selected. Hence, applicable.	Verifier has cross checked the PSF /01-d/, electricity connectivity agreement /18/ and confirms that the project imports electricity from the grid. And hence scenario A is applicable.
	This tool can be referred to in methodologies to provide procedures to	The electricity generated by the project is	Verifier has cross checked the PSF /01-d/, electricity connectivity agreement /18/ and

	monitor amount of electricity generated in the project scenario, only if one out of the following three project scenarios applies to the recipient of the electricity generate: (a) Scenario I: Electricity is supplied to the grid; (b) Scenario II: Electricity is supplied to consumers/electricity consuming facilities; or (c) Scenario III: Electricity is supplied to the grid and consumers/electricity consuming facilities	supplied to the grid. The scenario I is selected. Hence the said criterion is applicable.	confirms that the electricity generated by the project is supplied to the grid. And hence scenario 1 is applicable.
	This tool is not applicable in cases where captive renewable power generation technologies are installed to provide electricity in the project activity, in the baseline scenario or to sources of leakage. The tool only accounts for CO_2 emissions.	The project is a grid-connected solar power project. The tool is used to calculate the CO_2 emissions from the electricity consumption from the grid. Hence, it is applicable	Verifier has cross checked the PSF /01-d/, electricity connectivity agreement /18/ and confirms that the project is a grid-connected solar power project and hence used to calculated CO_2 emissions from the electricity consumption from the grid. Hence it is applicable

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

Means of Project Verification	Desk Review and Interviews
Findings	-
Conclusion	No clarification on the applicability of methodology, tool or standardized baseline from the PO. GCC verifier has assessed the PSF /01/ and concluded that no clarification required on the applicability of methodology, tool or standardized baseline.

D.3.3 Project boundary, sources and GHGs

Means of Project Verification	Desk Review and Interviews

Findings	No findings are raised.
Conclusion	According to the approved baseline and monitoring methodology "ACM0002" of "Grid connected renewable electricity generation", version 21.0 /B01/, the project boundary is "the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to". The physical boundary of the project activity identified by the project owner has been cross verified by site visit observation /25/, commissioning report for the power plant /06/ and power purchase agreement /10/. In section B.3 of the PSF /01-d/, project boundary has been adequately stated in figure and table. Hence, the project boundary includes the solar power plant and the other power plants which connected to the related electricity system and the EVN – Viet Nam national grid.

D.3.4 Baseline scenario

Means of Project Verification	Desk Review and Interviews
Findings	No findings are raised.
Conclusion	

Methodology requirement baseline	GCC verifier Assessment
According to the approved baseline methodology ACM0002 /B01/, "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."	Project activity involves generation of electricity using solar power plant and selling it to Viet Nam National grid as confirmed through the power purchase agreement /10/ and commissioning report /06/. In the absence of this project activity, same amount of electricity would have been generated by the operation of existing/proposed grid connected fossil fuel-based power plants. The same was cross checked and confirmed by the grid emission factor data published by Department of Climate Change - Ministry of Natural Resources and Environment /27/.
The relevant national and/or sectoral policies, regulations and circumstances are taken into account during the determination of baseline scenario.	Project Owner has considered all the applicable national and sectoral level policies in demonstrating the regulatory compliance of the of the project and baseline scenario. National/sectoral policies & regulations: • Electricity Law No. 28/2004/QH11 of 2004[9] • Circular No. 16/2017/TT-BCT[10] • Circular No. 34/2017/TT-BTNMT[11]

[9] https://policy.asiapacificenergy.org/sites/default/files/ELECTRICITY%20LAW%20%28No.%2028%3A2004%3AQH11%29%20.pdf

[10] https://thuvienphapluat.vn/van-ban/EN/Thuong-mai/Circular-16-2017-TT-BCT-project-development-model-Power-Purchase-Agreements-solar-power-projects/362037/tieng-anh.aspx

[11] https://thuvienphapluat.vn/van-ban/EN/Tai-nguyen-Moi-truong/Circular-34-2017-TT-BTNMT-on-recall-and-treatment-of-discarded-products/366638/tieng-anh.aspx

		• Decision 1264/QD-TTg 2019 – Formulation task of National Electricity Development Plan in the period of 2021 – 2030 with the vision toward 2045[12] • Circular No. 18/2020/TT-BCT – Project development and sample of electricity sale contract applicable to solar power projects[13]. • Circular No. 05/2019/TT-BCT[14] • Decision No. 13/2020/QD-TTg - Incentives for development of solar energy in Viet Nam[15]. According to all the referred policies and regulations the baseline scenario is in compliance with all applicable legal and regulatory requirements.

The baseline scenario has been adequately stated as: 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". Version 07.0 /B04/

The following ex ante parameters and assumptions were used to estimate baseline emissions of the project activity.

Combined margin CO_2 emission factor for the project electricity system in year y ($EF_{grid,CM,y}$) – The value has been calculated and published by Department of Climate Change - Ministry of Natural Resources and Environment, 2021 /27/. The value is calculated as per the TOOL 07: "Tool to calculate the emission factor for an electricity system" (Version 07.0) /B04/. This was found in accordance with the methodology and In line with the GCC Clarification No. 03, the combined margin for the emission factor calculation used is the latest version available at the time of Global Stakeholder Consultation period (19/12/2022 – 02/01/2023). The national grid emission factor was published by Department of Climate Change - Ministry of Natural Resources and Environment, Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV 1278/BDKH-TTBVTOD)" on 31/12/2022[16].

CCPIL project verification team was able to verify all the documented evidence listed above during the GCC Project Verification process and can confirm that:

- All the assumptions and data used by the project owners are listed in the PSF, including their references and sources.
- All documentation used /06/ /07/ /10/ /27/ are relevant for establishing the baseline scenario and correctly quoted and interpreted in the PSF.

[12] Resolution 55-NQ/TW 2020 orienting Vietnam's National Energy Development Strategy (thuvienphapluat.vn)
[13] https://thuvienphapluat.vn/van-ban/EN/Dau-tu/Circular-18-2020-TT-BCT-sample-of-electricity-sale-contract-applicable-to-solar-power-projects/449613/tieng-anh.aspx
[14] https://thuvienphapluat.vn/van-ban/Thuong-mai/Circular-05-2019-TT-BCT-amendments-to-Circular-development-of-solar-power-projects-425198.aspx
[15] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Quyet-dinh-13-2020-QD-TTg-co-che-khuyen-khich-phat-trien-dien-mat-troi-tai-Viet-Nam-439160.aspx
[16] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

	• Relevant national and/or sectoral policies and circumstances are considered and listed in the PSF /01-d/. The approved baseline methodology ACM0002, version 21.0 /B01/, has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed GCC project activity.

D.3.5 Demonstration of additionality

Means of Project Verification	Desk Review and Interviews
Findings	CL 03, CAR 05 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	Project owner has described the Demonstration of additionality according to the GCC Project Standard Version 03.1 /B02-1/. In section B.5 of the PSF, two components are applied for the demonstration of additionality. (i) Legal Requirement Test: The project activity is a Type A project and requires undergoing a Legal Requirement Test. However, the projects as in the project activity are not mandated by law or regulations and are entirely a voluntary action. The project complies as per paragraph 46 of GCC Project Standard V3.1 /B02-1/. The Project activity conforms to all the applicable laws and regulations in Viet Nam: • Power generation using renewable energy is not a legal requirement or a mandatory option • The Electricity Law No. 28/2004/QH11, 2004[17] does not influence the choice of fuel used for power generation. • As per the article 2 of the Electricity Law No. 28/2004/QH11, law applies to organizations and individuals conducting electricity activities which implies both the baseline and project scenario. • As per the article 4 of the Electricity Law No. 28/2004/QH11, electricity development policies implies to develop electricity in a sustainable manner on the basis of optimally tapping all resources, satisfying demands for electric energy in service of people's life and socio-economic development and to step up the exploitation and use of sources of new energies, renewable energy for electricity generation raising the efficiency of using various energy sources, protecting the ecological environment. Hence both the baseline and project scenario complied with the legal requirement and not mandated. • There is no legal requirement on the choice of a particular technology for power generation. • Policies pertaining to comply for the project scenario ii) Additionality Test: To cover this requirement from the GCC Project Standard 3.1 /B02-1/, section 6.4.8, paragraph 45 and as per the applied methodology ACM0002 Version 21.0 /B01/, additionality of the following project activity is demonstrated and assessed by the latest version of Tool 01: Tool for the demonstration and assessment of additionality" Version 7.0 /B05/. The project owner has adopted the stepwise approach for demonstrating and assessing the additionality of the project activity as follows:

17 https://policy.asiapacificenergy.org/sites/default/files/ELECTRICITY%20LAW%20%28No.%2028%3A2004%3AQH11%29%20.pdf

	Step 1: Identification of alternatives to the project activity consistent with current laws and regulations **Sub-step 1a: Define alternatives to the project activity:** Alternative 1: The proposed project activity undertaken without being registered as a GCC project activity. Alternative 2: No project activity is undertaken. The first alternative, which is the implementation of the project without carbon revenue, is not financially attractive as discussed in investment analysis section below. The second alternative (Scenario 2) is the baseline scenario and implementation of the proposed project as a GCC project activity would be additional to this scenario. No project activity is undertaken and continuation of current scenario. In this scenario, due to increasing electricity demand new power plants should be constructed which includes mainly thermal power plants (baseline scenario). Implementation of the project is additional to the baseline scenario which is alternative 2 above and therefore reduces the emissions. Outcome of Step 1a Continuation of the current situation is not considered as a realistic alternative due to increasing electricity demand therefore new power plants should be constructed which includes mainly thermal power plants. Implementation of the project is additional to the baseline scenario which is an alternative 2 above and therefore reduces the emissions. **Sub-step 1b: Consistency with mandatory laws and regulations:** There are no laws or regulations in Viet Nam issued by Government of Viet Nam, that restrict implementation of Solar power project. Further, no law or regulation issued by Government of Viet Nam, which mandates project owner to invest in solar power project. The resultant alternatives to the project as outlined in Step 1a are in compliance with the applicable laws and regulations. **Outcome of Step 1b** Mandatory legislation and regulations for each alternative are taken into account in sub-step 1b. Based on the above analysis, the proposed project activity is not the only alternative amongst the project owners that is in compliance with mandatory regulations. Therefore, the proposed GCC project activity is considered as additional. National/sectoral policies & regulations: • Electricity Law No. 28/2004/QH11 of 2004[18] • Circular No. 16/2017/TT-BCT[19] • Circular No. 34/2017/TT-BTNMT[20]

[18] https://policy.asiapacificenergy.org/sites/default/files/ELECTRICITY%20LAW%20%28No.%2028%3A2004%3AQH11%29%20.pdf

[19] http://vepg.vn/wp-content/uploads/2019/07/Circular_16_2017_TT-BCT_EN.pdf

[20] https://thuvienphapluat.vn/van-ban/EN/Tai-nguyen-Moi-truong/Circular-34-2017-TT-BTNMT-on-recall-and-treatment-of-discarded-products/366638/tieng-anh.aspx

- Decision 1264/QD-TTg 2019[21] – Formulation task of National Electricity Development Plan in the period of 2021 – 2030 with the vision toward 2045
- Circular No. 18/2020/TT-BCT[22] – Project development and sample of electricity sale contract applicable to solar power projects.
- Circular No. 05/2019/TT-BCT[23]
- Decision No. 13/2020/QD-TTg[24] - Incentives for development of solar energy in Viet Nam

According to all the referred policies and regulations the baseline scenario is in compliance with all applicable legal and regulatory requirements.

Step 2: Investment analysis
In this section it is demonstrated that the project activity is not financially feasible without the revenue from the sale of ACCs. This is demonstrated in the following sections as per TOOL 27: "Investment analysis" (Version 12.0) /B07/. No public funding or ODA /23/ are associated with the implementation of this GCC project activity. For investment analysis, financial assumptions from the debt finance from the lenders have been considered from the standard market rates available for the similar projects and enquiries from the vendors.

PO has decided to invest in the project activity and prepared the FRR (Feasibility Study Report)/07/ in the month of July 2018 and submitted to Vietnamese government for approval along with Basic design Report. The project got approval from the Vietnamese government on 06/08/2018 as an approval on the submitted Basic Design Report /07/. PO has considered the investment decision date of the project as 06/08/2018 which is the date for basic design approval /07/ by the Vietnamese government. The input parameters for the calculation of financial indicators have been taken from the FRR /07/ which was available prior to the investment decision date. Project owner has considered the input values from the FRR /07/.

Following are the chronological events to showcase the milestones of the project activity:

Sl. No.	Chronology of Events	Date
01	Preparation of basic design report	July 2018
02	Approval of Basic design report (Investment decision date)	06/08/2018
03	Signing of EPC Contract	28/08/2018
04	Signing of Power Purchase Agreement	18/10/2018

[21] https://thuvienphapluat.vn/van-ban/EN/Dau-tu/Decision-1264-QD-TTg-2019-Approval-for-the-National-Power-Development-Master-Plan/426316/tieng-anh.aspx
[22] https://thuvienphapluat.vn/van-ban/EN/Dau-tu/Circular-18-2020-TT-BCT-sample-of-electricity-sale-contract-applicable-to-solar-power-projects/449613/tieng-anh.aspx

[23] https://thuvienphapluat.vn/van-ban/EN/Thuong-mai/Circular-05-2019-TT-BCT-amendments-to-Circular-development-of-solar-power-projects/425198/tieng-anh.aspx
[24] https://thuvienphapluat.vn/van-ban/EN/Tai-nguyen-Moi-truong/Decision-13-2020-QD-TTg-incentives-for-development-of-solar-energy-in-Viet Nam/439546/tieng-anh.aspx

05	Project Commissioning	13/05/2019

Hence, the consideration of basic design approval date i.e. 06/08/2018 as the investment decision date is appropriate.

Sub-step 2a: Determine appropriate analysis method.
The project owner has chosen to apply investment analysis to demonstrate the additionality of the project activity using the benchmark analysis method. Project owner has identified post tax equity IRR as the most suitable financial indicator. The project cannot apply simple cost analysis since the project brings revenue from the sale of electricity; also, investment comparison analysis cannot be applied as the alternative to the project activity is the electricity generated by new and existing grid connected power plants. Hence, PO has chosen to demonstrate investment analysis using Option III: Benchmark Analysis.

Sub-step 2b: Option III. Apply benchmark analysis
Post tax equity IRR has been chosen as the financial indicator for the demonstration of financial unviability for the proposed project activity. Since, the PO is demonstrating financial unattractiveness of the project and the project cost involves both equity and debt, post-tax equity IRR is considered to be the appropriate option to indicate financial unattractiveness; and the same is accepted by the verification team.

As per para 15 of Investment analysis /B07/, "The applied benchmark shall be appropriate to the type of IRR calculated. Local commercial lending rates or 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. The GCC verifier shall validate that the benchmarks used are applicable to the project activity and the type of IRR calculation presented."

Further para 16 of the tool 27 /B07/ states that "In situations where an investment analysis is carried out in nominal terms and the available IRR benchmarks are in real terms, project owners shall convert the real term values of benchmarks to nominal values by adding the inflation rate. The inflation rate shall be obtained from the inflation forecast of the central bank of the host country for the duration of the crediting period. If this information is not available, the target inflation rate of the central bank shall be used. If this information is also not available, then the average forecasted inflation rate for the host country published by the IMF (International Monetary Fund World Economic Outlook) or the World Bank for the next five years after the start of the project activity shall be used". The equity IRR calculated is nominal equity IRR. Accordingly, Project owner converted the default benchmark which is in real terms into nominal terms by using the following equation;

Nominal Benchmark = {(1+Real Benchmark) x (1+Inflation rate)}-1

The GCC Project Verification team referred the book 'Corporate Finance: Theory and Practice', 2nd edition, by 'Aswath Damodaran'[25]. In page 320 of the book, the same equation is mentioned for converting real into nominal values. Hence the GCC Project Verification team considers the above equation as appropriate for converting real benchmark into nominal benchmark.

[25] As per Pg. 320 of Corporate Finance, Second Edition of Aswath Damodaran

The assessment team has verified all the above said documents and confirmed that the benchmark identified to compare the financial attractiveness of the project activity is appropriate.

Sub-step 2c: Calculation and comparison of financial indicators

For calculation of financial indicator, all relevant costs and revenues were found to be included in the IRR sheet provided by the PO. All assumptions and estimates used for input values were checked against the relevant sources.

Parameters	Project's Specifics	GCC verifier Assessment
Investment decision date	06/08/2018	Based on the approval date of Basic design Report /07/
Type of Benchmark	Post tax equity IRR /03-c/	As per the para 15 of Tool 27: Investment analysis, version 12.0, 'Required/expected returns on equity are appropriate benchmarks for an equity IRR' /B07/
Default Benchmark value	11.73% default for Viet Nam in Appendix Tool 27: Investment analysis /B07/.	Project owner has chosen the default for Viet Nam as per version 12 of Tool 27, Appendix of EB 116, Annex 2 /B07/ to demonstrate additionality, which is the latest available during the time global stakeholder consultation.
Inflation rate (Median)	3.96% sourced from World Economic Outlook database: April 2018[26]	The value has been sourced from the International Monetary Fund database: April 2018. The same found appropriate as there is no inflation forecast or the target inflation rate published by the central bank of the host country. The value applied appropriate as per the reference. Hence, GCC verifier has confirmed that it is in line with the para of tool 27 /B07/.
Benchmark value	16.15% =((1+0.1173) *(1+0.0396))-1) =16.154% =16.15%	Project owner has chosen the default for Viet Nam as per Appendix of EB 116, Annex 2 /B07/ to demonstrate additionality, which is the latest available during the time global stakeholder consultation. Project owner has sourced five-year inflation Forecast for Viet Nam from IMF database available at the time of investment decision. CCIPL team verified all the above said details and documents; and confirmed that the benchmark identified to compare the financial attractiveness of the project activity is appropriate.

[26] Report for Selected Countries and Subjects (imf.org)

The key data parameters used to calculate post tax Equity IRR are tabulated below. These parameters have been sourced from the Pre- Feasibility study Report /07/ which were available at the time of investment decision 06/08/2018 The Basic Design Report is approved by Viet Nam Government.

Parameter	Unit	Value	GCC verifier Assessment
Total Capacity	46.807-DC 39- AC	MWp MW	Verified against FRR /07/and cross verified against the EPC contract/08/ and EIA approval /11/. Further, the same has been confirmed during onsite visit.
Plant Load Factor	18.15	%	PLF has been calculated using the formula PLF= Net generation/ (Project capacity AC* 365*24) = 18.15%. hence it is found acceptable by the verification team.
Annual Net Generation	62.008	GWh	Verified against FRR /07/ and cross checked with the ER sheet /02-c/, generation reports /13/ and found that the generation in the generation report is less than the estimated generation. Hence, CCIPL confirms the net generation considered for the project activity is appropriate and hence acceptable.
Annual Degradation	0.7	%	Verified against FRR /07/. Further, verification team has cross verified with the NERL report on Photovoltaic Degradation Rates — An Analytical Review. The report covers nearly 2000 degradation rates all across the globe and degradation rates has a mean of 0.8% per year and a median of 0.5% per year[27]. So, the value 0.7 is acceptable. Further, generation values have also subjected to sensitivity analysis.
Project Cost	44.47	USD Million	Verified against FRR /07/ and cross checked with the approved basic design report /07/ and EPC contract /08/ it constitutes cost of supply of major equipment and installation cost. The other costs include Land and soft costs such as consulting cost, management expenditure, soft cost, transmission infrastructure and IDC etc. Project verification team has subjected project cost in the sensitivity analysis and found that IRR will cross the benchmark only reduction if the project cost reduced

[27] Photovoltaic Degradation Rates -- An Analytical Review: Preprint (nrel.gov)

				to -17.94% the same is unlikely to happen. Hence GCC verifier have accepted the same.
	Debt	70	%	The debt equity ratio (70:30) considered by project owner[28]. The project verification team has checked the impact of the IRR with the project is funded with various ratios viz. 50:50, 80:20, 95:05 etc. and in all scenarios the IRR is not crossing the benchmark value. Hence, the debt equity ratio considered in the investment analysis is acceptable to the GCC Project Verification team.
	Equity	30	%	
	Interest rate	9.00	%	The interest rate 9% has been considered by the project owner[29]. The project verification team has cross verified the same with UNIDO Handbook on how to access green financing in Viet Nam[30]. As per the report the interest rate provided by Viet Nam Development Bank (VDB) is around 11%. Hence, the value used for the financial analysis is acceptable to the project verification team.
	Debt Repayment Tenure	11	Years	The tenure of term loan and moratorium is considered for the investment analysis is based on internal assumption. The project verification team has cross verified the same with UNIDO Handbook on how to access green financing in Viet Nam[31]. As per the report states that "Loan term: Suitable for production and business characteristics, ensuring that each project can repay the loan in the term and not exceeding 13 years, within which the grace period shall not exceed 3 years from the signing date of the credit contract". Hence, the value used for the financial analysis is acceptable to the project verification team.
	Moratorium	1	Year	
	Operation and Maintenance	0.011	USD Million/ MWp	Verified against publicly available VCS solar project of Viet Nam i.e., "PL1974- Srepok 1 Solar Power

[28] https://thuvienphapluat.vn/van-ban/EN/Dau-tu/30-2006-QD-BCN/73596/tieng-anh.aspx

[29] https://www.sbv.gov.vn/webcenter/ShowProperty?nodeId=/UCMServer/SBV324004//idcPrimaryFile&revision=latestreleased

[30] 2018_Green_Financing_in_Viet_Nam.pdf (unido.org)

[31] 2018_Green_Financing_in_Viet_Nam.pdf (unido.org)

				Project[32]" and found that the per MW O&M cost is 0.016 Mn USD/MW. That is for 39 MW the value comes to be around 0.624 million USD. As per the assumption the total actual O&M cost is 0.39 million USD. The parameter is also subjected to sensitivity analysis and the same is not crossing the benchmark even at -100%.
	Escalation in O & M	5	%	PO has assumed internal value for escalation of O&M cost which is also cross checked against the growth in GDP of Viet Nam from 2016 to 2020 as sourced from publicly available data[33] which is around 4%. The consideration of escalation of O&M cost as 5% is found to be correct. Project owner has also subjected the O&M cost to sensitivity; and the project verification team observed that even with 100% variation in O & M cost in the sensitivity analysis the post tax equity IRR is below the benchmark. Therefore, the O & M cost as per assumed is acceptable by the project verification team.
	VAT	10.00	%	The tax rate is sourced from Vietnamese government revised law on VAT dated 25th April 2013[34] which is cross checked and found to be correct which was applicable at the time of investment decision.
	Tariff	0.0935	USD/ kWh	Verified against decision of Vietnamese government about Development of Solar Power Projects in Viet Nam[35] on 11/04//2017. Further, project verification team has checked the report published by Institute for Energy Economics and Financial Analysis on Viet Nam solar tariff program[36]. As per the report mentions the tariff as USD 0.07 per kWh. So, the value 0.0935 found appropriate.

[32] Verra Search Page
[33] Vietnam Inflation Rate - June 2023 Data - 1996-2022 Historical - July Forecast (tradingeconomics.com)
[34] Article 8. https://thuvienphapluat.vn/van-ban/Thue-Phi-Le-Phi/Luat-thue-gia-tri-gia-tang-2008-13-2008-QH12-66934.aspx
[35] Microsoft Word - Decision 11_2017_on Solar FIT_2017-04-11_EN_WORD (asiapacificenergy.org)
[36] Vietnam's solar FiT program beats expectations | USAID Clean Power Asia (aseanenergy.org)

				The same is cross verified with the reference provided by the project owner[37].
	Maximum time of depreciation	15	Year	The depreciation is sourced from circular from Ministry of Finance[38]of Viet Nam. GCC verifier has cross checked and found correct which is applicable at the time of decision making.
	Value of depreciation	2.43	USD Million	The depreciation of the project activity is calculated as per the guidelines provided in paragraph I of annex 2 of guiding regulation[39] on management, use and depreciation of fixed assets published by ministry of finance Viet Nam. The PO has considered the time of depreciation for machinery and power equipment under power generation unit as mentioned in A.1 of annex 1 of the above-mentioned report. The value of depreciation calculated by PO in IRR calculation is found appropriate as per the guidelines provided by ministry of finance Viet Nam. Hence, acceptable.
	Corporate Tax (0-4 years)	0.00	%	PO has considered the corporate tax rate[40] which is cross checked and found correct and applicable at the time of investment decision.
	Corporate Tax (5-13 years)	5.00	%	
	Corporate Tax (14-15 years)	10.00	%	
	Corporate Tax (16-25 years)	20.00	%	
	Salvage value	10	%	The Project owner has considered 10% of the equipment cost as the salvage value and added back the same in the inflow to calculate the project IRR. This is acceptable as per the accounting principle and also conservative implies to depreciation calculation.
	USD to VND Conversion Factor	22,676.0	VND	VND Conversion factor is as per SBV dated 06/08/2018 (In line with the approval of Basic design report-

[37] https://policy.asiapacificenergy.org/sites/default/files/Decision%20No.11-2017-QD-TTg%20of%20the%20Prime%20Minister%20on%20the%20mechanism%20for%20encouragement%20of%20the%20development%20of%20solar%20power%20projects%20in%20Vietnam%20%282017%29%20EN.pdf

[38] https://www.accaglobal.com/content/dam/acca/global/PDF-students/acca/f6/examdocs/vnm-circular-45-2013-depreciation-fixed-assets.pdf

[39] vnm-circular-45-2013-depreciation-fixed-assets (5).pdf

[40] https://thuvienphapluat.vn/van-ban/Doanh-nghiep/Nghi-dinh-218-2013-ND-CP-huong-dan-thi-hanh-Luat-thue-thu-nhap-doanh-nghiep-217811.asp

			Investment decision time). GCC verifier has cross verified from the publicly available data[41] and found to be appropriate. Hence acceptable.
Project Lifetime	25	year	The technical life of the solar panel/module is 25 years, and this has been confirmed from the FRR /07/. The same has been cross verified against the EPC contract /09/ Therefore, financial analysis carried for 25 years is acceptable.

The post tax equity IRR calculations were provided in a spreadsheet /03-c/. The calculation was verified and found to be correct by CCIPL project verification team; as well as the assumptions used in the calculation were deemed to be correct. The post tax equity IRR without GCC carbon credit revenues is 9.99% which confirms that the proposed project activity in absence of the GCC carbon credit benefits and compared to the benchmark return on equity 16.15% is not financially attractive. As the land has been leased for the project activity, the land value ha not been included in the salvage and cross checked with the land lease agreement /17/.

Sub-step 2d: Sensitivity analysis

A sensitivity analysis has been carried out for parameters contributing more than 20% revenues and costs, to demonstrate the robustness of the financial analysis. The parameters for which sensitivity analysis done are annual power generation (PLF), change in tariff, project costs, operational and maintenance cost, and net annual generation Sensitivity analysis was conducted for ±10% variation. Reasonable variations for these parameters were checked by calculating the variation necessary to reach the benchmark and then discussing the likelihood for that to happen.

Variation %	-10%	Normal	10%	Variation required to reach benchmark	Value required to reach benchmark
Tariff (USD/ kWh)	6.96 %	9.88%	12.97 %	19.68%	0.1119
Net annual generation (GWh)	6.96%	9.88%	12.97 %	19.68%	74.21
Project cost (USD (Mn))	12.95%	9.88%	7.51%	-17.94%	36.49
O & M Cost	10.26%	9.88%	9.50%	-173.69%	-0.32

The results of sensitivity analysis /03-c/ show that even with a variation of ±10% in tariff, net annual generation, project cost, and O&M cost, post tax 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 favourable conditions.

Project is already operational and actual net generation is 51.85 GWh/year for 2019, 73.28 GWh/year for 2020, 69.399 GWh/year for 2021 and 70.113 GWh/year for 2022 which is high than the estimated net generation 62.008 GWh used in the IRR computation. IRR will cross the benchmark if the net generation increased more than

[41] https://www.sbv.gov.vn/TyGia/faces/Aiber.jspx?_afrLoop=23937308118116023&_afrWindowMode=0&_adf.ctrl-state=j6kuqwdx0_4

	19.68%. The generation value at a variation of 19.68% increase is 74.21 GWh. Hence, there is no possibility of a further increase to net generation at the rate 19.68%. O&M agreement is already in place by the project owner and O&M used in the calculation is 0.011Mn USD near to the actual O&M i.e.,0.016Mn USD/MW. Sensitivity analysis reveals that O&M will breach the benchmark at negative values and is hypothetical case. Hence, there is no possibility of further decrease and is highly unlikely. Project is already operational, and the actual project cost is 44.04 Mn USD is less than 44.47 Mn USD project cost used in the IRR calculation which is observed from the EPC Contract /08/ and FRR /07/. IRR will only cross the benchmark if the project cost is reduced by 17.94%. The project cost at a variation of 17.94% reduction is 36.49 Mn USD. Hence, there is no possibility of decrease in the project cost at the rate 17.94%. As per the Power Purchase agreement the tariff rate of electricity is 0.0935 USD/kWh the same is consistent with value[42] which is taken for Investment analysis. The IRR will only cross the benchmark only if there is an increase 19.68% in the tariff. As per the PPA the tariff is fixed from the date of signing of PPA and there are no chances for further variation. Hence variation of the tariff to breach the benchmark is unlikely. **Step 3: Barrier Analysis** The additionality of the project has been demonstrated by applying the investment analysis, thus no barrier analysis is carried out. **Step 4: Common Practice Analysis** The section below provides the analysis as per step 4 of the "Tool for the demonstration and assessment of additionality", version 7.0.0 /B05/ and according to "Common Practice" Tool version 03.1 /B06/. **Step 1: Calculate applicable capacity or output range as +/- 50% of the total design capacity or output of the proposed project activity:** The project installed capacity is 39 MWac. PO has considered ranging +/- 50% i.e 19.5 MW- 58.5 MW which is acceptable as per the requirement of Step 1 under paragraph 13 of TOOL 24 "Common Practise" version 3.1 /B06/. Therefore, total capacity of power plants which will be included in the analysis will be between 19.5 MW – 58.5 MW. **Step 2: Identify similar projects (both CDM and non-CDM) which fulfil all of the following conditions:** The projects are located in the applicable geographical area; **The project activity has its defined tariff structure through power purchase agreement /10/ signed between PO and Electricity Corporation Viet Nam. Therefore, the selection of Viet Nam as the geographic area under step 2 (a) of TOOL 24, version 3.1 /B06/ is appropriate. PO has considered the project activities located in the same geographic are i.e Viet Nam for Common Practise Analysis. The project is located in Viet Nam and the applicable geographical**

[42] https://policy.asiapacificenergy.org/sites/default/files/Decision%20No.11-2017-QD-TTg%20of%20the%20Prime%20Minister%20on%20the%20mechanism%20for%20encouragement%20of%20the%20development%20of%20solar%20power%20projects%20in%20Viet Nam%20%282017%29%20EN.pdf

	area is Viet Nam. All the projects in the host country Viet Nam have been chosen for analysis. The projects apply the same measure as the proposed project activity; **The project activity is a 39MWac large scale project connected to grid and delivering electricity to distribution company Electricity Corporation Viet Nam through PPA /10/. The PO has considered similar projects i.e large scale within the capacity or output ranges as per step 1 that delivers electricity to grid. Renewable Energy Projects through Solar** The projects use the same energy source/fuel and feedstock as the proposed project activity, if a technology switch measure is implemented by the proposed project activity; **The project activity is a 39 MWac solar PV power plant located in the Viet Nam which delivers electricity to grid. PO has considered similar project i.e Solar power projects.** The plants in which the projects are implemented produce goods or services with comparable quality, properties and applications areas (e.g., clinker) as the proposed project plant; **The project activity is a 39 MWac solar PV power plant located in the Viet Nam which delivers electricity to grid. PO has considered similar project that provided same goods or services i.e electricity supplied to the connected grid as per Common Practice Analysis. The project activity produces electricity; therefore, all solar power plants that produce electricity are candidates for similar projects;** The capacity or output of the projects is within the applicable capacity or output range calculated in Step 1; **PO has considered the projects with capacity or output within the same range i.e +/-50% of the proposed project activity as per step 1 of the common practice analysis. Range in between 19.5 MW – 58.5 MW** The projects started commercial operation before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of proposed project activity, whichever is earlier for the proposed project activity. The start date i.e. the EPC contract signing date for the solar power plant is 28/08/2018. Therefore, projects which have started commercial operation between 25/09/2002 to 28/08/2018 have been considered for analysis. As per CDM Tool 24, v3.1 /B06/ the start date refers to the date on which the project participants commit to making expenditures for the construction or modification of the main equipment or facility (EB115_repan01_Glossary_CDM_(v11.0)). Hence EPC date has been taken for common practice analysis. **No similar projects are identified in step (2). N_{solar}= 0[43]. GCC Verifier has cross checked and validated the same and found appropriate and acceptable.** **Step 3: within the projects identified in Step 2, identify those that are neither registered CDM project activities, project activities submitted for registration,**

[43] https://thuvienphapluat.vn/cong-van/Tai-nguyen-Moi-truong/Cong-van-4614-BCT-DL-2018-bao-cao-tinh-hinh-phat-trien-dien-mat-troi-395995.aspx

	nor project activities undergoing GCC Project Verification. Note their number, N_{all}. It is observed that no projects meet the criteria of para 15 of TOOL 24 Common Practise, version 3.1 and hence $N_{all} = 0$. **Step 4: within similar projects identified in Step 3, identify those that apply technologies that are different to the technology applied in the proposed project activity. Note their number N_{diff}.** Projects with technologies different to technology applied in the proposed project activity were identified as $N_{diff} = 0$. The same is found acceptable by the GCC Verifier. **Step 5: calculate factor F= 1 – (N_{diff}/N_{all}) representing the share of similar projects (penetration rate of the measure/technology) using a measure/technology similar to the measure/technology used in the proposed project activity that deliver the same output or capacity as the proposed project activity.** The factor F was found to be in line with Tool 24 $F = 1 – (N_{diff}/N_{all}) = 1 – (0/0) = 1$ $N_{all} – N_{diff} = 0 – 0 = 0$ As per the para 18 of TOOL 24, version 3.1 /B06/ the proposed project activity is a Common Practise within the applicable geographical area if the factor F is > 0.2 and $N_{all} - N_{diff} > 3$. Since the proposed project activity would be common practice only both of the following conditions apply. $F > 0.2$ and $N_{all} - N_{diff} > 3$ For the concerned project, F = 1 and $N_{all} - N_{diff} = 0$ (Which is less than 3), therefore, the proposed project is not a common practice within the applicable geographical area. Hence, the proposed project is additional.

D.3.6 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	Desk Review and Interviews
Findings	CAR 06 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	**Baseline Emission** According to ACM0002 v21.0 methodology /B01/, emission reductions related to project activities is estimated as follows: $BE_y = EG_{PJ, y} \times EF_{grid, CM,y}$ Where: BE_y = Baseline emissions in year y (t CO_2/yr) $EG_{PJ, y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr) $EF_{grid, CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO_2/MWh).

Since the electricity generation values differ between years as explained in A.1, annual average electricity generation over the crediting period has been calculated and given in ER Sheet /02-c/. According to ER Sheet, $EG_{PJ,y}$ is 60,413 MWh/yr. Also, According to "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-TTBVTOD)"[44] published on 31/12/2022 document from Department of Climate Change - Ministry of Natural Resources and Environment /27/, the emission factor ($EF_{grid,\ CM,y}$) could be used as 0.8230 tCO_2/MWh. At the time of GSC this data was available, and it satisfies the requirements of para 8 and 9 of Clarification No. 3 /B02-7/

Therefore,
BE_y = 60,413 MWh/year x 0.8230 tCO_2/ MWhBE_y = 49,720 tCO_2e

Project Emissions (PE_y)
As the project activity is a solar photovoltaic based power generation, the project emissions are not applicable to the project activity as per the methodology ACM0002 /B01/.

Hence, PE_y = 0

Leakage (LE_y)
As per ACM0002 /B01/, no leakage emissions are considered.

Therefore, LE_y = 0.

Emission Reductions
Based on the data above, the emission reduction value for the project activity is:

$ER_y = BE_y - PE_y - LE_y$

$ER_y = BE_y$ = 49,720 tCO_2e

Parameters available at the time of project verification (ex-ante) (Mention under section B.6.2 of the PSF) are:

Parameter	Value	Unit	GCC verifier Assessment
Operating Margin CO_2 emission factor in year y of Viet Nam national Grid. ($\mathbf{EF_{grid,OM,y}}$)	0.9239	tCO_2e/MWh	The simple OM emission factor have been calculated using the Simple OM method as the low-cost/must run resources constitute less than 50% (for year 2019 to 2021) /27/. The ex-ante vintage data has been used for the OM calculation of the project. The value has been sourced from "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-

[44] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

				TTBVTOD)"[45] published on 31/12/2022 document from Department of Climate Change - Ministry of Natural Resources and Environment /27/ which is applicable as per the para 8 and 9 of Clarification No.3 v1.0 /B02-7/. This is the latest available data vintage at the time of GSC and so is taken for the EF calculations. The simple OM is fixed ex-ante in line with the 'tool to calculate the emission factor for an electricity system" Version 07.0. /B04/**.** Hence, accepted by the project verification team.	
	Build Margin CO_2 emission factor in year y of Viet Nam national Grid ($\mathbf{EF_{grid,BM,y}}$)	0.5202	tCO_2e/MWh	As per the "tool to calculate the emission factor for an electricity system" Version 07.0 /B04/, the build margin emissions factor is the generation-weighted average emission factor (tCO_2/MWh) of all power units *m* during the most recent year *y* for which electricity generation data is available. Hence, the value has sourced from "Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV1278/BDKH-TTBVTOD)"[46] published on 31/12/2022 document from Department of Climate Change - Ministry of Natural Resources and Environment /27/. The calculation procedures are outlined in the PSF /01-d/. Hence, accepted by the project verification team.	

[45] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

[46] http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html

	Combined Margin CO_2 emission factor in year y of Viet Nam National Grid ($\mathbf{EF_{grid,CM,y}}$)	0.8230	tCO_2e/MWh	The value is calculated considering 75% operating margin and 25% build margin as per the "tool to calculate the emission factor for an electricity system" Version 07.0 /B04/.

D.3.7 Monitoring plan

Means of Project Verification	Desk Review and Interviews
Findings	CL 04, CAR 07 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	The approved baseline and monitoring methodology "ACM0002" version 21 /B01/ has been applied. The monitoring plan is in accordance with the monitoring methodology; the monitoring plan will give opportunity for real measurement of achieved emission reductions. CCIPL project verification team has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant to the project activity have been found in the plan. CCIPL confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure the emission reductions achieved by/resulting from the proposed GCC project activity can be reported ex post and verified. Parameters that will be monitored (ex-post) (Mention under section B.7.1 of the PSF are:

Parameter	Frequency	Unit	GCC verifier Assessment
$EG_{facility,y}$ (Net Electricity generated and delivered to the grid by the power plant in year y)	Monthly	MWh/ Year	The estimated net electricity generated is given, however, the value for the parameter will be verified through review of on-site meter reading records. The Net electricity supplied to the grid by each Solar project is estimated as below: Net electricity = Export – Import There are two meters 0.2s/0.5s accuracy class (main meter and check meter) bidirectional meters are installed at the EVN substation to measure and record the net electricity supplied to the grid.. The

				parameter is monitored continuously and recorded monthly on the every month for the preceding month through Joint Meter Reading collectively taken by representative of PO and representative of EVN. This is validated by the JMR /13/ copy submitted by PO and through interview with the relevant stakeholders during the on-site audit /25/.	
	GHG emission reductions CO_2 emissions (EA03)	Monthly	tCO_{2e}	Emission reduction achieved due to the implementation of project activity that would have been otherwise be emitted by fossil fuel-based power plants. The CO_2 emission reduction is calculated by multiplying the emission factor of the Grid with the net electricity supplied by the project activity to the grid. The monitoring parameter is continuously monitored by means of on-site meters. The project activity is expected to reduce 49,720 tCO_2e annually and 497,202 tCO_2 for the whole crediting period. The CO_2 emission reduction is validated from the ER calculation sheet /02-c/ and found appropriate. This parameter is used for the contribution of the SDG 13 Take urgent action to combat climate change and its impacts parameter.	
	Solid waste Pollution from Hazardous wastes (EL02)	Tonnes	Annual	The waste produced during the operations and end of life by the Project activity will be regulated and disposed to the waste handlers or sent back to the manufacturer. The waste management plan /19/ of the company have been verified by the GCC verifier and found to be in compliance with the local	
	Solid waste Pollution from E-wastes (EL04)	Tonnes	Annual		
	Solid waste Pollution from end-of-life products/	Tonnes	Annual		

	equipment (EL06)			laws and Circular No.36/2015/TT-BTNMT dated 30/06/2015 of MONRE on Management of Hazardous waste[47]. The monitoring parameter will be continuously monitored by means of plant records. The project activity will monitor the generation of waste and maintain the disposal record for verification /19/. Actual plant records of project waste (if any) to be shared by the PO at the time of Emission reduction verification of the project activity.
	Solid waste pollution from batteries (EL05)	Tonnes	Annual	
	Sanitation and waste management (SHS08)	Tonnes	Annual	
	Water Consumption from ground and other sources (EW02)	m^3/ day	Annually	The project activity use water for cleaning of modules and domestic use. Though the project activity is not located in the residential or rural areas which doesn't impact on the existing using pattern. GCC verifier has cross checked the same during site visit. GCC Verifier has found that the project activity is in compliance with the Decree No: 02/2023/ND-CP Dated 01/02/2023 – The Water Resource Law[48] with Legal Limit: Surface water exploitation: Less than 50000 m^3/day and night and Ground Water Usage: 12000 m^3/day and night. PO has maintained water consumption records /19/ which GCC verifier reviewed and found satisfactory
	Replacing fossil fuels with renewable sources of energy (ENR07)	Monthly	MWh	The implementation of project activity replaces the electricity generation source from conventional source to renewable source otherwise that would be generated by

[47] http://vepg.vn/wp-content/uploads/2020/07/36_2015_TT-BTNMT_EN.pdf
[48] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Nghi-dinh-02-2023-ND-CP-huong-dan-Luat-Tai-nguyen-nuoc-513343.aspx

				fossil fuel-based power plants. The source of electricity generation replacement is obtained by monthly JMR sheet from which the net electricity supplied by the project activity to the grid will be monitored. The monitoring parameter is continuously monitored by means of on-site meters. The project activity is expected to replace 60,413 MWh annually. The source of electricity generation replacement is validated from the ER calculation sheet /02/ and JMR /13/ and found appropriate. This parameter is used for the contribution of the SDG 7: Ensure access to affordable, reliable, sustainable, and modern energy for all and ENR 07: Replacing fossil fuels with renewable sources of energy parameter.	
	Long- term (> 10 year) created (SJ01)	Annual	No of employees	The project activity has claimed created of on-site long-term jobs. At the time of project verification project activity generated 17 numbers of long-term jobs at site will be monitored. This has been validated by the employment records /22/ submitted by the PO. The monitoring parameter will be continuously monitored by means of employment records. This parameter is used for the contribution of SDG 8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	

	Women's empowerment (SW06) (Human rights)	No. of women employee	Annually	Company providing employment opportunities for women will avoid the risk of gender discrimination and social instability in the society as per Resolution No. 28/NQ-CP dated March 03, 2021 on issuance of national strategy for gender equality in 2021 - 2030[49]. GCC Verifier has cross checked this with employment records /22/ and confirms that the PO is willing to contribute towards women empowerment. The monitoring parameter will be continuously monitored by means of employment records.	
	Specialized training/ education to local personnel (SE01)	No. of trainings	Annually	PO has mentioned that they will provide the required training to the local personnel. GCC Verifier has cross checked the same and also established it as during the on-site audit /25/ by interviewing the stakeholders. GCC Verifier has also cross checked the training records /21/ provided by the PO and confirmed that there is a well-established training procedure available at site. The monitoring parameter will be continuously monitored by means of training records.	
	Community and rural welfare	No. of activities	Annually	The project activity has claimed to create a number of activities directed to the local community. At the time of project verification, the project activity has organised activities directed to local population and improvement of local welfare. This has been validated by the CSR activities records /24/, On-site audit /25/ and interview. The monitoring parameter will be continuously monitored by means of CSR activities records	

[49] https://lawnet.vn/en/vb/Resolution-28-NQ-CP-2021-issuance-of-national-strategy-for-gender-equality-2021-2030-73CB8.html

	Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04)	Labour regulation	Continuous	PO has submitted the labour Policy for Recruitment and Onboarding /30/. It states that the recruitment process of the company follows the commitment to equality, diversity and inclusion. GCC Verifier has verified the labour regulation and confirm it during the interview with the stakeholders that the company does not discriminate when hiring people and also has the process of record grievances of local community /30/. This establishes the communal harmony between the PO and the local community. PO has considered +1 score for this parameter and, it is monitored continuously throughout the crediting period.	
	Exploitation of child labour (SW08)	Number of Jobs	Annually	The project activity as claimed for Exploitation of child labor. At the time of project verification the PO has submitted the employees list and employment records /22/. GCC verifier has cross checked and confirms that the project activity complies with 1.Code No.45/2019/QH14[50] – The Viet Nam Labour code 2019 Legal Limit : Minimum working age of workers is 15 years 2. Law No. 102/2016/QH13 dated on 05/04/2016 – Children Law Pursuant to the Constitution of the Socialist Republic of Viet Nam[51] . The monitoring parameter will be continuously monitored by means of employment records.	
	Reducing/increasing accidents/incidents/fatality (SHS03)	Number of accidents/ incidents	Annually	PO has mentioned that they will provide required training to the workers. GCC Verifier has cross checked the same and also established it as	

[50] http://boluatlaodong2019.molisa.gov.vn/lang_en/topic/viet_nam_labour_code/index
[51] https://thuvienphapluat.vn/van-ban/Van-hoa-Xa-hoi/Law-102-2016-QH13-children-312407.aspx

			during the on-site audit by interviewing the stakeholders. GCC Verifier has also cross checked the training records /28/, /21/ and OHS records /29/ provided by the PO and confirmed that there is a well-established training procedure available at site. The monitoring parameter will be continuously monitored by means of training records and keep check on Physical hazards.

The monitoring plan content has been checked in the project activity and compared against the requirements of the monitoring methodology /B01/. It has been confirmed by the verification team that the monitoring plan, procedures, roles and responsibilities provided in the PSF is deemed to be feasible.

Data Recording frequency and Procedures:

The electricity produced by the project activities is recorded through a set of main meter and backup meter. During audit, GCC verifier has validated by cross checking the details of both the meters through interview, document review (JMR /13/ and calibration certificate /14/) and found correct. The details of the all the meters are provided below:

Parameters	**SL1**	
	Main Meter	**Backup Meter**
SI.No	172M- 19030342	172B- 19025975 131- 19025965 173- 19025976 174-19025974 431-19025968 473-19025967 475-19025837 477-19025944 471-19025966
Accuracy	0.2	0.5
Type	Bidirectional	Bidirectional

GCC verifier has validated the calibration or testing of the energy meters /14/. The meters are calibrated and verified pursuant to the calibration frequency defined in the PPA /10/. The meters need to be calibrated once in the year during the project operation and this has been cross checked by the calibration records submitted by the PO /14/.

QA / QC Procedure:

To maintain the QA / QC procedure, PO continuously records the energy data of both the meters. The meters are calibrated and verified pursuant to the calibration frequency defined in the PPA /10/. The meters need to be calibrated once in the year during the project operation and this has been cross checked by the calibration

	records submitted by the PO /14/. The meters will be calibrated and verified pursuant to calibration frequency defined in the Circular No. 23/2013/Tt-BKHCN dated 26/09/2013 of The Minister of Science and Technology, Regulations on Measurement for Group 2 Measurements /32/. The monitoring plan presented in the PSF /01-d/ complies with the requirements of the applied monitoring methodology /B01/. The verification team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found. The verification team, through a document review and interviews with the relevant stakeholders has reviewed the procedures. The information provided has allowed the verification team to confirm that the proposed monitoring plan is feasible within the project design. In summary, the parameters to be monitored have been presented correctly according to requirements and are considered in accordance with the applied methodology /B01/. This is in conformance with the requirements of GCC Verification Standard (version 3.1) /B02-2/. All the parameters mentioned in the PSF have been verified by the GCC Verifier.

D.4. Start date, crediting period and duration

Means of Project Verification	Desk Review and Interviews
Findings	No findings are raised.
Conclusion	The start date of the project is 13/05/2019, which is the start date of commercial operation of the project /06/. As per the paragraph 38 of the project standard V3.1, start of commercial operations has been considered as the start date. Hence project commissioning date (COD), on which project is connected to grid and started generating power and exporting to the grid there by started generating GHG emission reductions is considered as start date. Hence the start date of project activity is 13/05/2019 justified. Crediting period has been chosen as fixed 10 years from 13/05/2019 to 12/05/2029. A crediting period of a fixed length of 10 years has been selected by project proponent. Therefore, the duration of the crediting period is from 13/05/2019 to 12/05/2029. The project is a type A2 since the crediting period is after 1 Jan 2016 but not more than one year after the start of the operation of the GCC project activity as per para 40(b) of the GCC Project standard /B02-1/. Technical lifetime for the project activity is 25 years /16/. The project verification team concludes that the duration of the proposed project activity is in conformance with the requirements of paragraph 39 and paragraph 40(b) of GCC Project Standard, version 03.1 /B02-1/.

D.5. Environmental impacts

Means of Project Verification	Desk Review and Interviews
Findings	CL 05 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	As per the review of the Environmental Protection of the Government of Viet Nam, Government's Decree NO: 18/2015/ND-CP, dated February 14, 2015[52], Project Owner must prepare and submit the detailed Environmental Impact Assessment

[52] https://binhdinh.eregulations.org/media/18_2015_ND-CP_268489.pdf

	Report to the Department of Natural Resources and Environment including the strategic environmental assessment, Environmental impact assessment and environmental protection Plan. The project verification team has confirmed that the Environmental Impact Assessment report /12/ was submitted and approved by the respective district "Department of Natural resources and Minerals, Provincial People Committee". EIA approval Decision No.2148/QD-UBND, 24/08/2018 /11/ was issued to the project activity. The project will benefit the local people by engaging them in construction, operation and maintenance activities during the project. The verification team also confirm that the project owner has taken all the necessary legal approvals from the government and other parties to implement the project activity.

D.6. Local stakeholder consultation

Means of Project Verification	Desk Review and Interviews
Findings	CL 06 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	It has been indicated in the PSF /01-d/ that the local stakeholder consultation has been done for the project activity on 03/05/2018 at the project site. PO has conducted LSC as part of EIA and provided attendance sheet and MoM for the same which is acceptable as per para. 70 of section G.1 of PSF template filling instruction that is before the commissioning of the project activity. The meeting announcement was done by putting public notice at project site/nearby village. The same covers meeting location, date, time, and contact information/20/. A summary of comments has been provided by the project owner in PSF/01-d/ and it is found that no adverse comment was received for the project activity. This has also been verified by CCIPL project verification team during site visit /25/. Further, the interviews confirmed that there was no adverse comment about the project and this project will lead to employment generation and better environmental conditions. CCIPL considers the local stakeholder consultation is carried out adequately and can confirm that the process is in line with the requirements of GCC /B02/.

D.7. Approval and Authorization- Host Country Clearance

Means of Project Verification	Desk Review and Interviews
Findings	No findings are raised.
Conclusion	The verification team confirms that no HC approval is required by the CORSIA labelled project activity, and the HCA will be required during the first or subsequent ERVR.

D.8. Project Owner- Identification and communication

Means of Project Verification	Desk Review and Interviews
Findings	CL 08 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	**Organization Name** | Binh Thuan Solar Power Investment Joint Stock Company

Country	Viet Nam
Address	Suoi Nhuom, Hamlet, Song Luy commune, Bac Binh district, Binh Thuan province
Telephone	+856 20 88 888 898 & +84 036 680 7039
Fax	-
E-mail	contact@b-solarpower.vn & chanhss@b-solarpower.vn
Website	-
Contact person	Mr. Pheutsapha Phoummasak & Mr. Su Say Chanh

Organization Name	Kosher Climate India Private Limited
Country	India
Address	Zee Plaza, No.1678, Ground and 1st Floor, 27th Main Rd, near Andhra Bank, Sector 2, HSR Layout, Bengaluru, Karnataka 560102
Telephone	+91 9632803444 & +91 9945343475
Fax	-
E-mail	Narendra@kosherclimate.com &vamsi@kosherclimate.com
Website	https://kosherclimate.com/
Contact person	Narendra Kumar Ramaraj & Vamsi Krishna Manchikalapudi

This is in compliance with the Para 10 (i) of the Project Standard Version 3.1/B02-1/. The information and contact details of the representation of the project owner and project owners themselves has been appropriately incorporated in Appendix 1 of the PSF which was checked and verified by the verification team from Authorization letter signed by the project owners /04/. All information was consistent between these documents.

The GCC verifier has reviewed the Incorporation certificate /05/ of Binh Thuan Solar Power Investment Joint Stock Company and confirmed the legal validity of the project.

The GCC verifier team thus confirms the legal ownership of the solar project activity from the LOA /04/. The project verification team has checked the LOA /04/ submitted by the client and confirms Kosher Climate India private Limited is the authorized representative of proposed project activity developed by Binh Thuan Solar Power Investment Joint Stock Company. All the information are consistent between these documents.

D.9. Global stakeholder consultation

Means of Project Verification	Desk Review and Interviews
Findings	No findings are raised.
Conclusion	The process for global stakeholder consultation was conducted in accordance with the requirements of section 3.2.4 of the Verification Standard (version 03.1) /B02-2/. The PSF was published for global stakeholder consultation from 19/12/2022 to 02/01/2023.During the above period no Global stakeholders' comments were received. PSF version 2.0, dated 13/12/2022 was published on the GCC website and invited comments from affected parties, stakeholders, and non-governmental organizations from 19/12/2022 to 02/01/2023 ((https://www.globalcarboncouncil.com/global-stakeholders-consultation/). No comments were received during this period.

	The verification team confirm that no comments were received during the Global stakeholder consultation. Verification team is of the opinion that the changes in the PSF during the validation process do not require the publication of the revised PSF for global stakeholder consultation.

D.10. Environmental Safeguards (E+)

Means of Project Verification	Desk Review and Interviews
Findings	CL 07, CAR 08 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	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 to the environment due to the project implementation were identified and the following environmental impacts were considered for the project activity.

Impact of Project Activity on Environmental Safeguards	**Project Owner's Conclusion**	**Score**	**GCC verifier Assessment**
CO_2 Emission	The overall impact is positive with respect to the baseline and hence the impact is harmless. Since the impact is being monitored to demonstrate the positive impact over the lifetime, it is a score as +1	+1	The project activity being renewable power generation avoids CO_2 emissions that would have occurred in baseline scenario due to the electricity generation in thermal power plants. The impacts is being monitored through parameter 'CO_2 emission reduction' and is verified under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring was found acceptable by the verification team.

	Replacing fossil fuels with renewable sources of energy	The impact is positive compared to the baseline scenario where the grid connected electricity is being generated from the dominated fossil fuels. impact during the project lifetime. Since the impact is being monitored to demonstrate the positive impact during the project lifetime, the parameter is scored as +1	+1	The project activity will replace fossil fuel with the installation of renewable solar energy for the power generation, which would have been otherwise generated from the fossil fuel dominant grid connected power plants. The same is monitored through the monthly generation and invoices report /13/. The same is confirmed during the onsite visit /25/. Evaluation found Harmless. The same is acceptable to the GCC project verification team. Hence the scoring +1 is acceptable.
	Solid waste Pollution from Hazardous wastes (EL 02)	All kinds of the Hazardous wastes generated during the project activity will be collected, sorted, stored and disposed to the licensed vendor as per the regulation pertaining to the respective hazardous waste management rules. Since the impact of parameter is within the regulatory limits and is being measured and monitored to demonstrate the impact is harmless	+1	This is covered to monitor impacts from disposal of broken or replaced solar panels. The impacts are being monitored through parameters 'Solid waste Pollution from Hazardous wastes (EL02)' and discussed under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact.

		this parameter is scored as +1		Hence, the scoring has found acceptable by the team
	Solid waste Pollution from E-wastes (EL 04)	All kinds of the E-wastes generated during the project activity will be collected, sorted, stored and disposed to the authorized vendor for the recycling or to dump at the legacy MSW sites as per the regulation pertaining to the respective E-waste management rules. Since the impact of parameter is within the regulatory limits and is being measured and monitored to demonstrate the impact is harmless this parameter is scored as +1.	+1	Any E-waste including broken panels and batteries if generated from the plant shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste Pollution from E-wastes (EL04)' and validated under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact. Hence, the scoring has found acceptable by the team.
	Solid waste pollution from batteries (EL 05)	Though the impact due to the battery usage is insignificant the parameter will be monitored to demonstrate the impact is neutral. Hence the parameter is scored as +1.	+1	Waste generated from batteries shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste pollution from batteries (EL 05)' and verified under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor

				the parameter for the impact. Hence, the scoring has found acceptable by the team.
	Solid waste Pollution from end-of-life products / equipment	The impact is yet to be monitored at the end of lifetime of products. Since the impact of the parameter is being monitored to demonstrate the impact is harmless it is scored as +1.	+1	Waste generated after end of lifecycle of a product shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste Pollution from end-of-life products/ equipment (EL06) and validated under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact. Hence, the scoring has found acceptable by the team.
	Land use change (change from cropland /forest land to project land) (EL08)	The impact is unlikely to cause any harm	0	The land for the project activity is a leased land /17/. The land was taken for development of project activity with mutual agreement. The PO has paid the land conversion fee. GCC Verifier has crosschecked the same with the Land acquisition Letter /17/ and

				found appropriate and confirms that the land is not suitable for cultivation and has been taken for development of Solar Power Project. It is also confirmed from the interview with the stakeholder during on site visit /25/. Hence, GCC verifier concludes that the parameters is harmless and scored appropriately.
	Water Consumption from ground and other sources (EW02)	There is no impact due to the consumption of water resources. The impact is positive compared to the baseline scenario where the water consumption is comparatively higher for thermal power projects. Since the impact i.e quantity of water saved is not being monitored this parameter is scored as "+1"	+1	The project activity use ground water for cleaning of modules and domestic use. Though the project activity is not located in the residential or rural areas which doesn't impact on the existing using pattern. GCC Verifier has cross checked the same from water consumption records /19/ and during site visit /25/. PO has considered +1 for this parameter, and it is verified as harmless.
	Negative Impacts: No negative impacts identified or verified for the project activity, which cannot be mitigated.			

	Environmental land solid waste pollution from hazardous waste, E-waste, batteries and end-of-life products has been identified and proper mitigation action has been implemented for waste management. Verification team confirms that the Project activity will not cause any net harm to the environment and net score for project activity comes out to be +7, hence, is eligible to achieve additional E+ certifications. The detailed matrix has been included in appendix 5 of the report in which PO has fulfilled the minimum requirement for Renewable energy projects (Solar) mentioned in appendix 1 of Environment and social Safeguard standard v 3.0 /B02-4/.

D.11. Social Safeguards (S+)

Means of Project Verification	Desk Review and Interviews
Findings	CL 07 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	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 to the Society due to the project implementation were identified and the following have been indicated as positive impacts. The verification team based on the review of the PSF and the supporting document confirms that the social impacts mentioned in the section E.2 of the PSF is applicable to the Project activity and the monitoring procedures of the parameters are provided.

Impact of Project Activity on Environmental Safeguards	Project Owner's Conclusion	Score	GCC verifier Assessment
Long- term jobs (> 10 year) created/lost	There is no mandatory law to generate permanent employment from the project activity, however, project Owner has been decided to provide training to the local people & generate permanent employment for local people. Therefore, this parameter will be scored.	+1	The impacts being monitored throughout crediting period by parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' and is verified under section D.3.7 of this report. The employment was verified from employment records /22/ and during the on-site audit/25/ and by interviews and it was accepted by the GCC Verification team

				that appropriate monitoring plan is going to be implemented.
	Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04) (Human rights)	Project owner strictly avoid any discrimination practices while hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities. Project owner ensures that equality of opportunity and treatment of all individuals to fully develop their talents and skills according to their aspirations and preferences, and to enjoy equal access to employment as well as equal working conditions.	+1	PO has submitted the Labour Policy for Recruitment and Onboarding /30/. The Labour policy states that the recruitment process of the company follows the commitment to equality, diversity and inclusion. GCC Verifier has seen and verified the company level labour policy and confirm it during the interview with the stakeholders that the company does not discriminate when hiring people and also has the process of record grievances of local community /30/. This establishes the communal harmony between the PO and the local community. PO has considered +1 score for this parameter and, it is verified as harmless.
	Reducing / increasing accidents/Incidents/fatality (SHS03)	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.	+1	PO has well onsite established OSH records /29/ and training records. /28/,/21/ The project owner will provide regular safety training to their workers about the accident hazards and risk related to specific

		Since the parameter is having the impact on the employees this parameter is being considered for monitoring to demonstrate that impact is neutral during the project operational period. Therefore this parameter will be scored +1.		works and preventive measures for avoiding accidents at site. GCC Verifier has cross checked the same and also established it as harmless during the onsite audit by interviewing the stakeholders. GCC Verifier has also cross checked the annual OSH guideline[53] provided by the PO and confirmed that there is a well-established safety procedure available at site. PO has considered +1 score for this parameter and, it is verified as harmless.
	Sanitation and waste management (SHS08)	Management will ensure proper disposal of sanitary and domestic waste through actual user, waste collector or operator of the disposal facility, 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	+1	In the solar power plant sanitation and waste management is very less. However, PO has Waste management plan[54] for the project site and as per regulation /19/. GCC Verifier has verified the disposal facility during the on-site audit and found appropriate and shall not cause harm to the environment & society. PO has considered +1

[53] http://www.ilo.org/dyn/natlex/docs/MONOGRAPH/99774/119205/F-595449136/VNM99774.pdf
[54] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Decree-08-2022-ND-CP-elaboration-Articles-of-the-Law-on-Environmental-Protection-507203.aspx

		septic tanks, waste collection areas will be away from natural drainage channels Therefore this parameter will be scored +1.		score for this parameter and, it is verified as harmless.
	Specialized training/ education to local personnel (SE01)	The project Owner will provide regular job related training to their workers.. Hence this parameter will be scored.	+1	PO has mentioned that they will provide required training to the workers. GCC Verifier has cross checked with the records /21/ and also established it as harmless during the on-site audit by interviewing the stakeholders. GCC Verifier has also cross checked the training records /21/ provided by the PO and confirmed that there is a well-established training procedure available at site. PO has considered +1 score for this parameter and, it is verified as harmless.
	Community and rural welfare (indigenous people and communities) (SW02)	Project owner will keep interacting with the local community and identify the minimum accessibility needs of the community from time to time. By implementing the project activity project owner has already been contributed to	+1	The project activity has claimed to create a number of activities directed to the local community. At the time of project verification, the project activity has organised activities directed to local population and improvement of local welfare.

		local economic development, employment creation etc. This is a continuous process during the project lifetime.		This has been validated by the CSR activities records /24/, On-site audit /25/ and interview. PO has considered +1 score for this parameter, and it is verified as harmless.
	Women's empowerment (SW06) (Human rights	Project Owner ensures that there is no gender inequality while providing the job opportunities for the project operations. Will maintain and enforce the organizational policy to avoid any gender discrimination in the company. Project owner also priorities the women employee at the project operation from the local community to empower them by providing the income sources which would not have been happened in the absence of the project activity. This parameter will be scored.+1.	+1	Company has employed women resource in compliance with the equal remuneration and minimum wage act. GCC Verifier has cross checked this with employment records /22/ and confirms that the PO is wiling to contribute towards women empowerment. PO has considered +1 score for this parameter and, it is verified as harmless.
	Exploitation of Child labour (Human rights) (SW08)	Project owner will strictly monitor and ensures that no child labour is working at the site and no forced labour is working at the site.	+1	Employment to children below 15 years in any organization in Viet Nam is strictly prohibited by law. The HR department of PO also abide by these rules and regulation of Viet

				Nam. GCC Verifier team has cross checked the evidence /22/ and also through the onsite audit confirms that there is no child labour working at the project site. PO has considered +1 score for this parameter and, it is verified as harmless

Negative Impacts:

No negative impacts identified or verified for the project activity, which cannot be mitigated.

Verification team confirms that the Project activity will not cause any net harm to the social safeguard and net score for project activity comes out to be +8. An appropriate monitoring plan has been put in place for the elements marked positive. The detailed matrix has been included in appendix 6 of the report in which PO has fulfilled the minimum requirement for Renewable energy projects (Solar) mentioned in appendix 1 of Environment and social Safeguard standard v 3.0 /B02-4/.

D.12. Sustainable development Goals (SDG+)

Means of Project Verification	Desk Review and Interviews
Findings	CL 06 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	The Project owner has chosen to apply for the United Nations Sustainable Development Goals (S+). The assessment of the impact of the project activity on the SDG's has been carried out in section F of the PSF /01-d/. The project is expected to contribute 3 SDGs which are SDG 7, 8, and 13. The verification team confirms that the SDG chosen by the project owner is in compliance with the GCC Project sustainability standard V.2.1 /B02-5/ and is applicable to the Project activity and the monitoring procedure of each SDG is given in section F and B.7.1 of the PSF.

UN- level SDGs	Project Level Description	Monitoring Procedure	GCC verifier Assessment
Goal 7: 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. Indicator: 7.2.1 Renewable energy share in	Annually generate around 60,413 MWh of renewable energy using solar energy	Described in section D.3.7 of this report	The project activity contributes towards this goal by replacing the generation of electricity from fossil fuel dominated grid in baseline by renewable solar-

	the total final energy consumption			based power generation. The contribution towards SDG goal is being monitored by the parameter '$EG_{PJ,y}$', quantity of net electricity 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- 8. .5 By 2030, achieve full and productive 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. **Indicator: 8.5.1** Average hourly earning of employee by sex, age, occupation and perons with disabilities**.**	Project creates new employment and generates income for 17 no of people during the project lifetime Through Project activity economic development has been achieved in the project location by creating employment opportunities to the other allied services and indirect employment for men and women. Create employment for minimum of 10 people with minimum wages as per the minimum wages act of host country	Described in section D.3.7 of this report	The contribution towards SDG goal is by providing employment by creating new employment and generated income for 15 number of people during the project lifetime /22/. This is being monitored by the parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.
	Goal 13- 13.2 Integrate climate change measures into national policies, strategies and planning. **Indicator:** 13.2.2 Total greenhouse gas	Achieve annual emission reductions of 49,720 tCO_2e over the crediting period for the project.	Described in section D.3.7 of this report	The contribution towards SDG goal is being monitored by the parameter 'CO_2 emission reduction' in the monitoring plan and is found adequate. This has been

				discussed under section D.3.7 of this report.

The Project Owner has provided complete information in the PSF to demonstrate that the chosen SDG goals positively contribute to the UN SDGs as required by paragraph 19, 20 and 21 of Project Sustainability Standard /B02-5/.

Based on the documentation review, the verification team can confirm that Project Activity is likely to contribute to the 3 United Nations Sustainable Development Goals (7, 8 and 13) and would have a positive impact, hence, is eligible to achieve additional SDG+ (Silver) certifications.

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

Means of Project Verification	Desk Review and Interviews
Findings	FAR 01 has been raised and to be verified during subsequent verification. Please refer Appendix 4 for further details.
Conclusion	A declaration /23/ under section A.5 of the PSF has been included for offsetting the approved carbon credits (ACCs) for the entire crediting period from 11/06/2019 to 10/06/2029. The host country attestation is yet to be obtained for authorization on double counting. The project owner has clarified the intent of use of carbon credits for CORSIA hence no double counting will take place. Host country approval will be submitted during verification by PO and hence this has been raised as FAR 01.

D.14. CORSIA Eligibility (C+)

Means of Project Verification	Desk Review and Interviews
Findings	CAR 02 has been raised and closed satisfactorily. Please refer Appendix 4 for further details.
Conclusion	The project activity meets eligible criteria for CORSIA (C+) 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 under CORSIA. The verification team confirms that project activity is also likely to achieve following eligibility requirement: 1. It will reduce a forecasted amount of greenhouse gases, since project activity is the implementation of renewable energy system. 2. Likely to achieve Environmental No-net harm (E+ label) as discussed in section D.10. 3. Likely to achieve Social No-net harm (S+ label) as discussed in section D.11. 4. Likely to achieve SDG+ label with silver Certification label. The project activity meets the CORSIA eligibility.

Section E. Internal quality control

The Final project verification report prepared by the verification team was reviewed by an independent technical review team to confirm if the internal procedures established and implemented by CCIPL were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GCC rules/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 were independent of the verification team.

The technical review process may accept or reject the verification opinion or raise additional findings in which case these must be resolved before requesting for registration. The technical review process is recorded in the internal documents of CCIPL, and the additional findings gets included in the report. The final report passed by technical reviewer is approved by the authorized personal of Carbon Check and issued to PO and/or submitted for request for registration, as appropriate on behalf of CCIPL.

Section F. Project Verification opinion

CCIPL was contracted by Kosher Climate India Private Limited on 20/12/2023 /26/ for project verification of the project activity “Song Luy 1 Solar Power Plant Project” in Viet Nam. The project verification was performed based on rules and requirements defined by GCC for the project activity.

The project activity is a solar power project, which results in reductions of CO_2e emissions that are real, measurable and give long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario and the emission reductions attributable to the project are, hence, additional to any that would occur in the absence of the project activity. The project correctly applies the approved baseline and monitoring ACM0002 “Grid-connected electricity generation from renewable sources”, Version 21.0 /B01/ and is assessed against latest valid GCC Project Standard /B02-1/, GCC Verification Standard /B02-2/ and Environment and Social Safeguards Standard /B02-4/, Project-Sustainability-Standard /B02-5/ 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 49,720 tCO_2e/year over the 10 years crediting period starting from 13/05/2019 to 12/05/2029.

CCIPL has informed the project owners of the project verification outcome through the draft project verification report and final project verification report. The final project verification report contains the information with regard to fulfilment of the requirements for project verification, as appropriate.

CCIPL applied the following verification process and methodology using a competent verification team;

- The desk review of documents and evidence submitted by the project owner in context of the reference GCC rules and guidelines issued,
- Undertaking/conducting site visit, interview, or interactions with the representative of the project owner.

- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate
- Preparing a draft verification opinion based on the auditing findings and conclusions
- Technical review of the draft project verification opinion along with other documents as appropriate by an independent competent technical review team.
- Finalization of the project verification opinion (this report)

Subject to closure of all the raised findings in Appendix 4 of this report, the GCC Project Verifier, Carbon Check (India) Private Limited (CCIPL) has verified and hereby certifies that the GCC project activity “Song Luy 1 Solar Power Plant Project ” in Viet Nam

a. Has correctly described the Project Activity in the Project Submission Form (version 5.0, dated 05/12/2023) /01-d/ including the applicability of the approved methodology ACM0002, version 21.0 /B01/ and meets the methodology applicability conditions, is additional 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 reduction estimates correctly and conservatively.

b. Is likely to generate 60,413 MWh/year of electricity (for the fixed 10 years crediting period) as indicated in the PSF version 5.0 /01-d/, which are generated from existing baseline scenario of the national grid of Viet Nam 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;

c. 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 register the Project Activity, which is likely to achieve the requirements of the Environmental Nonet-harm Label (E+) and the Social No-net-harm Label (S+); and

d. is likely to contribute to the achievement of United Nations Sustainability 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+)

e. is likely to contribute to CORSIA Eligible Emission Units and has CORSIA Label (C+) certification valid till 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 meeting the applicable requirements prescribed by ICAO.

The GCC project verification report describes a total of 17 findings, which include:

09 Corrective Action Requests (CARs)
07 Clarification Requests (CLs)
01 Forward Action Requests (FARs)

All the CARs and CLs are resolved by the project owner and the FAR remains open for subsequent verification.

Appendix 1. Abbreviations

Abbreviations	Full texts
ACC	Approved Carbon Credits
ACC+	Approved Carbo Credit Label
BESS	Battery Energy Storage System
BM	Build Margin
CAR	Corrective Action Required
CCIPL	Carbon Check India Private Limited
CDM	Clean Development Mechanism
CL	Clarification Request
CM	Combined Margin
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
DR	Document Review
E+	Environmental No net harm Label
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
EPC	Engineering Procurement and Construction
ERVR	Emission Reduction Verification Report
EVN	Vietnam Electricity
FAR	Forward Action Request
FRR	Feasibility Research Report
GCC	Global Carbon Council
GHG	Greenhouse Gas
GORD	Gulf Organization for Research and Development
GPS	Global Positioning System
GV	GCC Verifier
GWP	Global Warming Potential
HC	Host Country
HCA	Host Country Approval
I	Interview
ICAO	International Civil Aviation Organization
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
JMR	Joint Meter Reading
KCIPL	Kosher Climate India Private Limited
LSC	Local Stakeholder Consultation
MoM	Minutes of Meeting
NREL	National Renewable Energy Laboratory
O&M	Operation and Maintenance
OM	Operating Margin
PO	Project Owner
PFSR	Pre- Feasibility Study Report
PPA	Power Purchase Agreement
PSF	Project Submission Form
PVR	Project Verification Report
S+	Social No- net harm Label
SCADA	Supervisory Control And Data Acquisition
SDG+	United Nation Sustainable Development Goal Label
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
USPP	Utility Scale Power Plant

VAT	Value Added Tax
VB	Verification Body
VDB	Vietnam Development Bank

Appendix 2. Competence of team members and technical reviewers

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Vijay Mathew

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Rishi Raychoudhury

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Nguyen Hong Ngoc Trang

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Vietnam		

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Mr. S. Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	☐ CCB Expert
☒ Financial Expert	☒ Local Expert for India		

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☒ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date

1st January 2023

Expiry Date

31st December 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provided by PO
/01/	Kosher Climate India Private Limited	a. Initial PSF- Song Luy 1 Solar Power Plant project b. Revised PSF- Song Luy 1 Solar Power Plant project c. Revised PSF- Song Luy 1 Solar Power Plant project d. Final PSF- Song Luy 1 Solar Power Plant project	Version 2.0, Dated 13/12/2022. Version 3.0, Dated 10/07/2023. Version 4.0, Dated 15/11/2023. Version 5.0, Dated 05/12/2023	☒ ☒ ☒
/02/	Kosher Climate India Private Limited	a. Initial Emission reduction calculation spread sheet- 39MW Binh Thuanh Solar Project in Vietnam. b. Revised Emission Reduction calculation spread sheet- 9MW Binh Thuanh Solar Project in Vietnam, version 3.0 c. Final Emission Reduction calculation spread sheet- 9MW Binh Thuanh Solar Project in Vietnam, version 4.0. • Estimated ER • EF	Version 01. Version 02,03 Version 04	☒ ☒ ☒
/03/	Kosher Climate India Private Limited	a. Initial IRR calculation spread sheet- 9MW Binh Thuanh Solar Project in Vietnam. b. Revised IRR calculation spread sheet- 9MW Binh Thuanh Solar Project in Vietnam, version 3.0 c. Final IRR calculation spread sheet- 9MW Binh Thuanh Solar Project in Vietnam, version 4.0 • Benchmark • Input Parameters • Project Cost • Interest • P&L • Revenues • Expenses • Depreciation • Sensitivity Analysis	Version 01. Version 02,03. Version 04	☒ ☒ ☒
/04/	PO	Letter of authorization of project owner	10/10/2022	☒
/05/	Department of Planning and	Incorporation Certificate of the Project Owner	27/07/2017	☒

	Investment			
/06/	EVNEPTC	Commissioning Certificate	22/05/2019	☒
/07/	Ministry of Industry, trade, and Renewable Energy Vietnam Electricity Corporation	Basic Design Report Approval Feasibility study Report	06/08/2018 July 2018	☒
/08/	BINH THUAN SOLAR POWER INVESTMENT JSC	EPC Contract- Binh Tuan Solar Power Investment JSC and The Consortium Contractor- Contract No. EPC- 2308/ Song Luy 1 Solar	28/08/2018	☒
/09/	BINH THUAN SOLAR POWER INVESTMENT JSC	O&M agreement for the project- Binh Thuan photovoltaic Investment Joint Stock Company and Brand of Power Engineering Consulting Joint Stock Company 2- N0.: 20.1.072. SL1/PECC2-POM	April 2020	☒
/10/	Vietnam Electricity Corporation	Power Purchase Agreement- Binh Tuan Solar Power Investment JSC and Electricity Corporation Viet Nam- 10/2018/HD-NMDMT-SONG LUY 1	18/10/2018	☒
/11/	BINH THUAN PROVINCE	EIA Approval Letter- 2184/QD-UBND	24/08/2018	☒
/12/	BINH THUAN SOLAR POWER INVESTMENT JSC	EIA Report	2018	☒
/13/	PO	Monthly electricity generation and invoices	2019-2023	☒
/14/	PO	Calibration Report- BINH THUAN SOLAR POWER INVESTMENT JSC and Electricity Trading Company. Main Meter: 19030342 (172M) Backup Meter: 19025975 (172B) 19025965 (131) 19025976 (173) 19025974 (174) 19025968 (431) 19025967 (473) 19025837 (475) 19025944 (477) 19025966 (471)	03/06/2020 20/05/2021 17/05/2022	☒
/15/	PO	Energy Meter Details	Main Meter: 19030342 (172M)	☒

			Backup Meter: 19025975 (172B) 19025965 (131) 19025976 (173) 19025974 (174) 19025968 (431) 19025967 (473) 19025837 (475) 19025944 (477) 19025966 (471)	
/16/	TMEIC GCL HUAPENG	Technical specification • Inverter • PV Module • Transformer inverter		☒
/17/	Department of Natural resource and Environment BINH THUAN SOLAR POWER INVESTMENT JSC	Land Document: • Land lease Agreement- 122/HDTD • Credit Agreement- Bank for Investment and Development of Vietnam JSC and Binh Thuan Solar Power Investment Joint Stock Company- 01/2020/10036161/HDTD	10/10/2018 22/09/2020	☒
/18/	BINH THUAN SOLAR POWER INVESTMENT JSC	Approval for electricity connection	November 2015	☒
/19/	PO	- Waste Handling Agreement- So:55/HD-CTCC - Hzardous waste Agreement- 4915/HD.MTDT-NH/23.4.VX - Groundwater Consumption records - Hazardous and E-waste Monitoring records - Domestic waste monitoring records	15/07/2020 15/08/2022 2023 September 2023 January-February 2023	☒
/20/	PO	LSC Details - Attendance - Minutes of community consultation.	03/05/2018	☒
/21/	PO	Training Records - Fire Fighting training - Safety Training - Operation Training	2020 2020 2020	☒
/22/	PO	Salary and list of employees		☒
/23/	PO	Declaration Form on double counting	31/03/2023	☒
/24/	PO	CSR Activities		☒

			2022 & 2023	
/25/	CCIPL	Audit notes	23/02/2023	☒
/26/	CCIPL	Contract details- CCIPL & PO	20/12/2022	☒
/27/	Ministry of Natural Resources and Environment	National grid emission factors were published by Department of Climate Change - Ministry of Natural Resources and Environment, Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021 (attached with CV 1278/BDKH-TTBVTOD) published on 31/12/2022 http://dcc.gov.vn/van-ban-phap-luat/1102/Nghien-cuu,-xay-dung-he-so-phat-thai-(EF)-cua-luoi-dien-Viet-Nam-nam-2021-(k%C3%A8m-CV-1278/BDKH-TTBVTOD).html	December 2021	☒
/28/	BINH THUAN SOLAR POWER INVESTMENT JSC	Accidents/ incidents records	2023	☒
/29/	PO	OHS Records	2022, 2023	☒
/30/	BINH THUAN SOLAR POWER INVESTMENT JSC	Employee Grievance Logbook and Labor Regulations		☒
/31/	BINH THUAN SOLAR POWER INVESTMENT JSC	Actual project Cost	13/05/2019	☒
/32/	Ministry of Science and Technology	Circular No. 23/1013/Tt-BKHCN	26/09/2023	☒
/B01/	CDM	CDM Methodology: ACM0002 Grid- connected electricity generation from renewable sources, version 21.0	Version 21.0	☒
/B02/	GCC	1. GCC Project Standard 2. GCC Verification Standard 3. GCC Program Definition 4. Environmental and Social Safeguards Standard 5. Project Sustainability Standard 6. Clarification no: 01 7. Clarification no: 03 8. Non-binding Examples of Bundling	Version 3.1 Version 3.1 Version 3.1 Version 3.0 Version 3.1 Version 1.3 Version 1.0 Version 1.0	☒
/B03/	GCC	PSF template	Version 4.0	☒

/B04/	CDM	Methodological tool 07: Tool to calculate the emission factor for an electricity system, version 07	Version 7.0	☒
/B05/	CDM	Methodological tool 01: Tool for the demonstration and assessment of additionality, version 07.0.0	Version 7.0.0	☒
/B06/	CDM	Methodological tool 24: Common Practice, version 03.1	Version 03.1	☒
/B07/	CDM	Methodological tool 27: Investment Analysis, version 12.0	Version 12.0	☒
/B08/	CDM	Methodological tool 05: Baseline, project and/ or leakage emissions from electricity generation	Version 3.0	☒

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

Table 1. CLs from this Project Verification

CL ID	01	**Section no.**	D.1	**Date:** 13/03/2023
Description of CL				
Project owner is requested to provide LOA/LON to cross check the ownership details of the project activity.				
Project Owner's response				**Date:** 08/05/2023

The LOA document has been provided for the clarification of the ownership details of the project activity.
Documentation provided by Project Owner
LOA document.
GCC Project Verifier assessment **Date:** 14/07/2023
Project Owner has provided the LOA and ownership of the project activity is well established. Hence the CL is closed.

CL ID	02	**Section no.**	D.2	**Date:** 13/03/2023
Description of CL				
In section A.1 of the PSF, project owner is requested to provide evidence of *1.) long-term power purchase agreement.* *2.) Clearance for erection of distribution & transmission line.* *3.) Estimation of average electricity generation.*				
Project Owner's response				**Date:** 08/05/2023
The long-term power purchase agreement with contract duration of 20 years has been provided. *Clearance for erection of distribution & transmission line documents has been provided.* *The average electricity generation estimated based on entire crediting period has been updated in section A.1 of the PSF and ER sheet.*				
Documentation provided by Project Owner				
PPA Document *Distribution and Transmission line document* *Updated PSF* *Updated ER*				
GCC Project Verifier assessment				**Date:** 14/07/2023
• *Power Purchase agreement is not traceable in the supporting documents provided by the PO. Hence the CL is open.* • *PO has provided the erection of distribution and transmission document and also have provided details of approval for erection of the distribution and transmission line document has been incorporated in A.1 section of PSF. This has been cross checked by the GCC verifier. Hence the CL is closed.* • *PO is requested to provide appropriate reference for the Estimation of average electricity generation. Hence the CL is open.* • *PO has provided only the technical specification of the PV modules. PO is requested to provide the technical specification for all the equipment's installed at the project activity. Hence the CL is open.*				
Project Owner's response				**Date:** 14/11/2023

- *Power Purchase agreement (PPA) has been submitted.*
- *The estimation of average electricity generation is performed using the annual net power generation considered as per government approved Construction Investment Feasibility study report (CIFSR) and annual degradation factor sourced from Manufacturer specification. Hence CIFSR and Manufacturer specification are provided as reference.*
- *Technical Specification for inverter, energy meters and transformer has been provided in A.3 section and evidence has been submitted.*

Documentation provided by Project Owner	
Power Purchase Agreement (PPA) CIFSR Manufacturer's Specifications	
GCC Project Verifier assessment	**Date:** 23/11/2023

- *PO has submitted the Power Purchase Agreement to verifier and it has been cross checked. Hence the CL is closed.*
- *PO has submitted the Feasibility study report as the estimated average electricity generation is considered from the FSR. Hence the CL is closed.*
- *PO has submitted all the technical specifications for inverter, energy meters and transformer as mentioned in section A.3 of the PSF. Hence the CL is closed*

CL ID	03	**Section no.**	D.3.5	**Date:** 13/03/2023

Description of CL

1.) *In the section B.5 of PSF, Project owner is requested to provide credible evidence along with precise reference viz. page no. for all input values considered at the time of decision making in compliance with tool 27.*

2.) *PO is requested to provide justification for consideration of 28/08/2018 as the project start date as per tool 27.*

Project Owner's response	**Date:** 08/05/2023

Reliable evidence for all input values along with precise reference viz. page no. at the time of decision making in compliance with tool 27 has been updated in the section B.5 of the PSF. The PLF has been calculated from the net power generation value provided in the Government approved FRR as per Annex 11 EB 48.

As per para 10, Investment analysis Tool 27, Version 12.0. The investment decision date of the project is considered as 06/08/2018 which is the date of appraisal of Basic design report dossier (Feasibility Research report (FRR), Basic design report).

Documentation provided by Project Owner	
Updated PSF. *Updated IRR.*	
GCC Project Verifier assessment	**Date:** 14/07/2023

- *PO has provided the page wise reference for the input parameters considered. Also, The PLF has been calculated from the net power generation value provided in the Government approved FRR. Hence the CL is closed.*
- *The investment decision date of the project activity is 06/08/2018 which is the basic design report approval and inline with para 10 of investment analysis. Hence the CL is closed*

CL ID	04	Section no.	D.3.7	Date: 13/03/2023
Description of CL				
1.) *In section B.7.1 of PSF, project owner is requested to provide information on the following with evidence:* *a) Type of meter.* *b) Location of meter.* *c) Accuracy & serial no.* *d) Calibration certificate of meters.* *e) Joint meter sheet.* ***2.)*** *In section B.7.1 of the PSF, project owner is requested to provide records maintained & circulars mentioned for all applicable parameters of E+, S+ & SDG_s.* ***3.)*** *In section B.7.4 of the PSF, project owner is requested to provide evidence for O&M manual.*				
Project Owner's response				**Date:** 08/05/2023
The necessary information has been provided in the section B.7.1 of the parameter of $EGf_{acility,y}$ *table with evidence by project owner.* *In section B.7.1 of the PSF, reference has been provided for all the monitoring parameters for E+, 2S+ & SGDs.* *The section B.7.4 of the PSF has been updated.*				
Documentation provided by Project Owner				
Updated PSF *HR Policy* *Waste management* *List of employees and pay roll* *Calibration certificate* *Training certificate* *JMR & invoice* *EIA* *O&M Document*				
GCC Project Verifier assessment				**Date:** 14/07/2023
1. In the section B.7.1 of the revised PSF, PO has incorporated all the details of the main meter and check meter. This has been cross checked by GCC verifier with the energy meter photographs and calibration records provided by the PO. Hence the CL is closed. *2. In the section B.7.1 of the PSF, PO has provided reference for monitoring parameters. Hence the CL is closed.* *3. PO has provided O&M manual for the section B.7.4 of the PSF. Hence the CL is closed.*				

CL ID	05	Section no.	D.5	Date: 13/03/2023
Description of CL				
In section D.2 of the PSF, Project owner is requested to provide copy of EIA approval.				
Project Owner's response				**Date:** 08/05/2023
The EIA approval letter has been provided in line with the section D.2 of the PSF.				
Documentation provided by Project Owner				

EIA approval letter.
GCC Project Verifier assessment **Date:** 14/07/2023
PO has provided EIA report and EIA approval for the section D.2 of the PSF and confirmed that the project will not contribute to any negative environmental impact. Hence the CL is closed.

CL ID	06	**Section no.**	D.6	**Date:** 13/03/2023
Description of CL				
In section G.1 of PSF, Project owner is requested to provide evidence for conducting LSC including invitation letter to the stakeholders, Attendance sheet, MoM, Photographic/videographic evidence.				
Project Owner's response				**Date:** 08/05/2023
The evidence for conducting LSC to the stakeholders has been provided such as attendance sheet. Which has been incorporated in the section G.1 of the PSF and annexed.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
PO has submitted the attendance sheet and MoM of the meeting conducted for the project activity. But however, PO is requested to provide the invitation letter to the stakeholders. *Hence the CL is open.*				
Project Owner's response				**Date:** 14/11/2023
The attendance sheet and MoM of the LSC meeting conducted are the only documents available as evidence for the project activity and hence the same has been submitted				
Documentation provided by Project Owner				
MoM Attendance Sheet				
GCC Project Verifier assessment				**Date:** 23/11/2023
As LSC is conducted as a part of EIA as detailed in the PSF, PO has submitted the attendance sheet and MoM as evidence for LSC. Hence the CL is closed				

CL ID	07	**Section no.**	D.10/D.11/D.12	**Date:** 14/07/2023
Description of CL				
In the section E.1 of the PSF, PO is requested to provide credible evidence for the following as per the monitoring frequency since the parameters are scored +1: • *Solid waste pollution from Hazardous waste* • *Solid waste pollution from E- waste* • *Solid waste pollution from batteries* • *Solid waste Pollution from end-of-life products/ equipment* *In the section E.2 of the PSF, PO is requested to provide credible evidence for the following as per the monitoring frequency since the parameters are scored +1:* • *Avoiding discrimination action* • *Occupational Health Hazards* • *Reducing/ increasing accidents* • *Specialized trainings*				
Project Owner's response				**Date:** 14/11/2023

As per section E.1 of the PSF, *The hazardous waste, E-waste including end-of-life products/ equipment and Battery waste monitoring sample report has been submitted.* *As per section E.2 of the PSF,* • *For avoiding discrimination action, Internal Labor regulation document and employee grievance log-book has been provided.* • *Occupational health hazards is redundant to the monitoring of the parameter Reducing/increasing accidents/incidents/fatality' (SHS03), the B.7.1 section has been revised accordingly and evidence has been submitted.* • *The specialized training records has been submitted.*
Documentation provided by Project Owner
Monitoring Records - Hazardous waste, E-waste including End-of-life products/ equipment and Battery Waste. Internal Labour Regulation Document, Employee grievance log-book, Incident/accident register, Specialized Training Records.
GCC Project Verifier assessment **Date:** 23/11/2023
In the section E.1 of the PSF: *PO has submitted the hazardous and E-waste agreement along with the samples of the waste records for September 2023. Hence the CL is closed.* *In the section E.2 of the PSF:* • *PO has submitted the grievance logbook and labor regulations which has been cross checked by the verifier. Hence the CL is closed.* • *PO has removed the scoring for the parameter Occupational Health Hazards. Hence the CL is closed.* • *PO has submitted the incident/ accident register to the verifier and it has been cross checked. Hence the CL is closed.* • *PO has submitted specialized training records which has been cross checked by the verifier. Hence the CL is closed.*

Table 2. CARs from this Project Verification

CAR ID	01	**Section no.**	D.2	**Date:** 13/03/2023
Description of CAR				
1.) *In section A.3 of PSF:* *a) Project owner is requested to update the technical specification section & provide credible evidence as per PSF filling template section A.3, Para. 6 & 8.*				

b) Technology mention in technical specification table is not appropriate as per on-site audit. ***2.)*** *In appendix section of the PSF, project owner is requested to fill the all-appendix section as per general instruction para. 14 of the PSF template.* ***3.)*** *Project Owner is requested to provide all supporting documents in English as per general instruction of PSF template para. 11, along with the original copy of the documents.*
Project Owner's response **Date:** 08/05/2023
The section A.3 of the PSF has been updated accordingly inline to the PSF filling template para 6 and 8. *The appropriate technical specification in line with the on-site audit has been provided.* *The appendix section has been modified as per general instruction para 14 of the PSF template.* *The translation of the entire supporting documents is complicated due to the large size. The B.5 section has been provided with the page numbers for all the parameters as per corresponding documents for simple reference.*
Documentation provided by Project Owner
Technical specifications evidence *Updated PSF.*
GCC Project Verifier assessment **Date:** 14/07/2023
1. a. PO has updated the section A.3 of the revised PSF as per para 6 and 8 of the PSF template filling form. This has been cross checked by the GCC verifier. *Hence the CAR is closed.* *b. The technical specification mentioned is now inline with the site records.* *2. PO has mentioned the appendix section of the revised PSF, as per the para 14 of the PSF template filling form. Hence the CAR is closed.* *3. PO has provided page number for all the parameters with the corresponding documents to cross check the details of project activity. Hence the CAR is closed.* *However, PO is requested to mention the number of inverters in the details of the technical specification in the section A.3 of the PSF. Hence the CAR is open.*
Project Owner's response **Date:** 14/11/2023
The total number of inverters used for the project activity is 39 Nos and the same has been updated in the PSF under section A.3.
Documentation provided by Project Owner
Updated PSF.
GCC Project Verifier assessment **Date:** 23/11/2023
In the section A.3 of the revised PSF, PO has mentioned the total number of inverters used for the project activity. Hence the CAR is closed.

CAR ID	02	**Section no.**	D.14	**Date:** 13/03/2023
Description of CAR				
In section A.6 of the PSF the reference provided for the CORSIA emission unit eligibility criteria requirement is not in working condition.				
Project Owner's response				**Date:** 08/05/2023
The reference for CORSIA emission unit eligibility criteria requirement has been updated in the section A.6 of the PSF.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
PO has updated the section A.6 of the PSF. Hence the CAR is closed.				

CAR ID	03	Section no.	D.3.1	Date: 13/03/2023
Description of CAR				
1.) *Methodology version applied in the PSF is not consistent with the latest version available at the time of GSC. PO is requested to rectify the same.* ***2.)*** *In section B.1 of the PSF, Project owner is requested to mention complete description of the tool.* ***3.)*** *Project owner is requested to use the latest version of the tool 27 consistently throughout the PSF.*				
Project Owner's response				**Date:** 08/05/2023
The latest version of the Methodology ACM0002 version 21.0 has been applied consistently throughout the PSF. *In section B.1 of the PSF, the description of the tool has been updated, which in line with the Methodology of ACM0002, version 21.* *The latest version of the Tool 27 version 12.0, has been applied consistently throughout the PSF.*				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
PO has used the latest version of the methodology which is available in the CDM website and also used the latest version of the TOOL 27. Hence the CAR is closed.				

CAR ID	04	Section no.	D.3.2	Date: 13/03/2023
Description of CAR				
In section B.2, PO is requested to provide the applicability condition of the methodology, tool 7 and tool 27 as per the latest version available at the time of GSC.				
Project Owner's response				**Date:** 08/05/2023
All the applicability condition of the methodology, tool 7 and tool 27 has been applied as per the latest version available at the time of GSC.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
In the section B.2 of the revised PSF, PO has provided all the applicability conditions of the latst version of methodology and TOOL. Hence the CAR is closed.				

CAR ID	05	Section no.	D.3.5	Date: 13/03/2023
Description of CAR				
1.) *In section B.5 of PSF, Project owner is requested to consider the default benchmark value as per latest version of tool 27 available at the time of GSC.* ***2.)*** *In the Section B.5 of the PSF, the reference mentioned for the Det Repayment Tenure and Moratorium is erroneous.* ***3.)*** *In section B.5 of the PSF, under sensitivity analysis the unit of tariff quoted in cent USD/kWh. PO is requested to maintain the same as per PPA.* ***4.)*** *In IRR spreadsheet provided by PO,* a) *It is seen that in interest & expanses sheet the values are considered in INR, however, the other values are considered in USD Million. PO is requested to maintain the consistency in units.*				

b) In P&L sheet the value mentioned for salvage value is erroneous. PO is requested to rectify the same as per accounting principle. ***5.)*** *In section B.5 of the PSF, the value mentioned for "variation required to reach benchmark" for Tariff & PLF is not appropriate.*
Project Owner's response **Date:** 08/05/2023
The benchmark value has been updated in line with the latest version of the tool 27 version 12.0 *In the section B.5 of the PSF, the Debt and Repayment Tenure and Moratorium has been considered based on Assumption.* *In the sensitivity analysis, the unit of tariff quoted has been updated as per the PPA.* *The IRR spreadsheet has updated and the cost values has been considered as USD Million.* *The salvage value has been updated in P&L sheet in IRR spreadsheet.* *The correction has been made in the section B.5 of the PSF and also in sensitivity analysis in IRR spreadsheet.*
Documentation provided by Project Owner
Updated PSF *Updated IRR*
GCC Project Verifier assessment **Date:** 14/07/2023
1. In the section B.7.1 of the revised PSF, PO has updated the benchmark value inline with the latest version of TOOL 27. *2. In the section B.5 of the revised PSF, PO has updated the reference for the Debt Repayment Tenure and Moratorium* *3. In the section B.5 of the revised PSF, PO has rectified the unit if the tariff under sensitivity analysis.* *4. In the revised IRR sheet, PO has made the consistency of unit throughout the IRR and updated the salvage value in the P&L sheet.* *5. PO has revised the PSF and IRR, and mentioned appropriate values.* *Hence the CAR is closed.*

CAR ID	06	**Section no.**	D.3.6	**Date:** 13/03/2023
Description of CAR				
In section B.6.3 of the PSF, project owner is requested to mention appropriate value of $EF_{grid,CM,y}$ in baseline emission calculation.				
Project Owner's response				**Date:** 08/05/2023
The value of $EF_{grid,CM,y}$ has been rectified in baseline emission calculation in section B.6.3 of the PSF.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
PO has rectified the value of $EF_{grid,CM,y}$ has been rectified in baseline emission calculation in section B.6.3 of the revised PSF. Hence the CAR is closed.				

CAR ID	07	**Section no.**	D.3.7	**Date:** 13/03/2023
Description of CAR				

In section B.7.1 of the PSF, project owner is requested to mention details of monitoring equipment in the table 2.
Project Owner's response **Date:** 08/05/2023
In section B.7.1 of the PSF, details of the main meter and backup meters for each table has been provided.
Documentation provided by Project Owner
Updated PSF.
GCC Project Verifier assessment **Date:** 14/07/2023
PO has provided the details of monitoring equipment in the section B.7.1 of the revised PSF. Hence the CAR is closed.

CAR ID	08	**Section no.**	D.10	**Date:** 13/03/2023
Description of CAR				
In section E.1 of the PSF, Project owner is requested to give appropriate explanation for environment natural resources category (ENR02, ENR03, ENR05).				
Project Owner's response				**Date:** 08/05/2023
The anticipated impacts of the E.1 parameters of ENR02, ENR03 and ENR05 has been modified.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
In the section E.1 of the revised PSF, has been redrafted and provides the appropriate explanation for environment natural resources category (ENR02, ENR03, ENR05). Hence the CAR is closed.				

CAR ID	09	**Section no.**	D.12	**Date:** 13/03/2023
Description of CAR				
In section F of the PSF, Project owner is requested to give appropriate explanation for goal 9 of SDG$_s$.				
Project Owner's response				**Date:** 08/05/2023
This project doesn't contribute to the SDGs Goal 9. Hence, the SDGs Goal 9 has been removed.				
Documentation provided by Project Owner				
Updated PSF.				
GCC Project Verifier assessment				**Date:** 14/07/2023
Project owner has removed the contribution for the SDG goal 9 in the revised PSF. Hence the CAR is closed.				

Table 3. FARs from this Project Verification

FAR ID	01	**Section no.**	D.13	**Date:** 13/03/2023
Description of FAR				
Project Owners shall demonstrate the compliance to CORSIA requirements for the credits claimed beyond 31 December 2020 with respect to double counting and HCLOA requirements and also future CORSIA requirements applicable time to time for the project activity.				
Project Owner's response				**Date:** 27/08/2023
Host Country Authorization will be submitted during verification period.				
Documentation provided by Project Owner				
GCC Project Verifier assessment				**Date:** DD/MM/YYYY

Appendix 5. Environmental Safeguard (E+)

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[55] indicated below.	*Indicators for environmental impacts*	*Describe and identify anticipated and actual significant environmental impacts, both positive and negative from all sources (stationary and 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.*	*Describe the applicable national regulatory requirements /legal limits / voluntary corporate limits related to the identified risks of environmental impacts.*	*If no environmental impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as* ***Not Applicable***	*If environmental impacts exist, but are expected to be in compliance with applicable national regulatory /stricter voluntary corporate requirements and will be within legal/ voluntary corporate limits by way of*	*If negative environmental impacts exist that will not be in compliance with the applicable national legal/ regulatory requirements or are likely to exceed legal limits,*	*Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as* ***'Harmfu'l*** *at least to a level that is in compliance with applicable legal/regulat*	*Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., installation of pollution control equipment) that will be adopted to reduce or eliminate 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 including the data source.*	*-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 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*

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

					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.*	*then the Project Activity is likely to cause harm (may be un-safe) and shall be indicated as* ***Harmful***	*or requirements or industry best practice or stricter voluntary corporate requirements*					*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)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	NO_x emissions (EA02)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	CO_2 emissions (EA03)	The project is expected to reduce CO_2 emissions wrt to baseline scenario of generation of equivalent amount of power in grid connected power plant	No mandatory law/regulation is applicable for solar projects in the country.	Not Applicable	Harmless The overall impact is positive with respect to the baseline alternative.	- Not Applicable	Not Applicable	Not Applicable	Monitoring parameter is GHG emission reductions per year (tCO_2/year). This parameter is calculated from the quantity of net electricity generated and	+1	The overall impact is positive with respect to the baseline and hence the impact is harmless.	The project activity being renewable power generation avoids CO_2 emissions that would have occurred in baseline scenario due to the electricity

									supplied to the grid multiplied by the combined margin emission factor sourced from the Legislation Research and develop emission factor (EF) of Viet Nam's electricity grid in 2021. Net electricity will be monitored through the energy meters installed at the substation. This parameter will be continuously monitored and reported on annual basis. Please refer to the section B.7.1 for more details on monitoring.		Since the impact is being monitored to demonstrate the positive impact over the lifetime, it is a score as +1.	generation in thermal power plants. The impacts is being monitored through parameter 'CO_2 emission reduction' and is verified under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact, hence the scoring was found acceptable by the verification team.
	CO emissions (EA04)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Suspended particulate matter (SPM) emissions (EA05)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Fly ash generation (EA06)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Non-Methane Volatile Organic Compounds (NMVOCs) (EA07)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

	Odor (EA08)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Noise Pollution (EA09)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Others (EA10)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Add more rows if required and corresponding notation with EA as prefix)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Environment - *Land*	*Solid waste Pollution from Plastics (EL-01)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Solid waste Pollution from Hazardous wastes(EL02)	The Solid waste pollution shall be generated from the transformer such as transformer oil/Spent oil during the operation and maintenance of the project activity. Improper treatment of this solid waste will lead to the negative environmental impact. hence the parameter needs to be monitored and mitigation measures to be implemented to mitigate the impact.	Circular No.36/2015/TT-BTNMT dated 30 June 2015 of MONRE on Management of Hazardous Waste.[56] Legal Limit: Less than 600 Kgs/year	Not Applicable	All kinds of the solid wastes during the project activity will be collected, sorted, stored and disposed to the licensed vendor as per the regulation pertaining to the respective	Not Applicable	Not Applicable	Not Applicable	Dedicated O&M team is appointed at the site for operation and monitoring of the project activity. O&M team continuously monitors the hazardous waste generated at the project site and records will be maintained. The following parameters will be monitored:	+1	All kinds of the Hazardous wastes generated during the project activity will be collected, sorted, stored and disposed to the licensed vendor as per the regulation pertaining to the respective hazardous waste management rules. Since the impact of parameter is within the regulatory limits	This is covered to monitor impacts from hazardous waste. The impacts are being monitored through parameters 'Solid waste Pollution from Hazardous wastes (EL02). An appropriate monitoring plan has been put in place to monitor the parameter for the impact. However, the PO

[56] http://vepg.vn/wp-content/uploads/2020/07/36_2015_TT-BTNMT_EN.pdf

					hazardous waste management. Hence the impact is deemed harmless				1. Quantity of waste generated 2. Quantity of waste disposed These parameters will be monitored and recorded in the log books. Data will be continuously monitored and records will be maintained on annual basis. Please refer to the section B.7.2 for more details on monitoring		and is being measured and monitored to demonstrate the impact is harmless this parameter is scored as +1	need to monitor the parameter as per regulation of Vietnamese government[57]. Hence, the scoring has found acceptable by the team.
	Solid waste Pollution from Bio-medical wastes (EL03)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Solid waste Pollution from E-wastes (EL04)	E-Waste shall be generated in the form of damaged electronic and communication equipment; computer accessories and any other electronic components being used in the operation of the project activity. Improper treatment of this waste will lead to the negative environmental impact. hence the parameter needs to be monitored and mitigation measures to be	Circular No.36/2015/TT-BTNMT dated 28/09/2015[58] of MONRE on Management of Hazardous Waste. Legal Limit: Less than 600 Kgs/year	Not Applicable	All kinds of the E-wastes generated during life time of the project activity will be collected, sorted, stored and disposed to the authorized vendor for the recycling or	Not Applicable	Not Applicable	Not Applicable	O&M team continuously monitors the E-waste generated at the project site and recorded in the plant log books. Following parameters will be monitored: 1. Quantity of E-waste generated 2. Quantity of E-	+1	All kinds of the E-wastes generated during the project activity will be collected, sorted, stored and disposed to the authorized vendor for the recycling or to dump at the legacy MSW sites as per the regulation pertaining to the respective E-waste management rules.	Any E-waste including including electronic components, wires, computer accessories etc and batteries if generated from the plant shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste

[57] https://faolex.fao.org/docs/pdf/vie168554.pdf
[58] https://faolex.fao.org/docs/pdf/vie168554.pdf

		implemented to mitigate the impact.			to dump at the legacy MSW site s as per the regulation pertaining to the respective E- waste manageme nt rules Hence, the impact is deemed harmless				waste disposed These parameters will be monitored and recorded in the plant log books. Data will be continuously monitored and records will be maintained on annual basis Please refer to the section B.7.2 for more details on monitoring		Since the impact of parameter is within the regulatory limits and is being measured and monitored to demonstrate the impact is harmless this parameter is scored as +1. .	Pollution from E-wastes (EL04). An appropriate monitoring plan has been put in place to monitor the parameter for the impact. However, the PO need to monitor the parameter as per regulation of Vietnamese government[59]. Hence, the scoring has found acceptable by the team.
	Solid waste Pollution from Batteries (EL05)	There is a minimal impact due to the pollution from the batteries.	Circular No.36/2015/TT-BTNMT dated 28/09/2015[60] of MONRE on Management of Hazardous Waste. Legal Limit: Less than 600 Kgs/year	Not Applicable	This project does not have any battery storage facility to store the generated power. However, there are few batteries are used to start the inverters and for the standby power to the computers used in the project office at the site. At the end of lifetime, the batteries will be	Not Applicable	Not Applicable	Not Applicable	Following parameters will be monitored: 1. Quantity of battery waste generated 2. Quantity of battery waste disposed This will be continuously monitored and reported on annual basis. Please refer to the section B.7.2 for more details on monitoring.	+1	Though the impact due to the battery usage is insignificant the parameter will be monitored to demonstrate the impact is neutral. Hence the parameter is scored as +1.	Waste generated from batteries shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste pollution from batteries (EL 05)' and verified under section D.3.7 of this report. An appropriate monitoring plan has been put in place to monitor the parameter for the impact. Hence, the scoring has found acceptable by the team.

[59] https://importlicensing.wto.org/sites/default/files/members/134/Decree%20No.38_2015_ND-CP%20-%20Management%20of%20waste%20and%20scrap%20%28ENG%29_24.04.2015.pdf

[60] https://faolex.fao.org/docs/pdf/vie168554.pdf

					handed over to the recycler or manufacturer to replace with new batteries. Old batteries will not be disposed to the open landfill. Hence the impact is harmless							
	Solid waste Pollution from end of life products/ equipment (EL06)	Solar panels, Inverters and transformers are the major components of the solar power project. The improper disposal of these components will lead to the negative environmental impact. Hence, the parameter needs to be monitored and mitigation measures to be implemented to mitigate the impact.	Decree No.38/2015/ND-CP dated 24/04/2015 [61] of the Government on management of waste and discarded materials.	Not Applicable	The average life of the transformers and PV modules are considered as 25 years. Transformers will be sent back to the manufacturer or recycler for the recycling and reuse of usable component at the end of the lifetime of the transformer.	Not Applicable	Not Applicable	Not Applicable	Following parameters will be monitored: 1. Quantity of waste generated at the end of its lifetime (Transformers, PV Modules and Inverters) 2. Quantity of waste disposed Records of the equipment disposed to the vendors or manufacturers at the end of life-time will be monitored and recorded. Please refer the section B.7.2 above for detailed monitoring plan.	+1	The impact is yet to be monitored at the end of lifetime of products. Since the impact of the parameter is being monitored to demonstrate the impact is harmless it is scored as +1.	Waste generated after end of lifecycle of a product shall be discarded in accordance with host country regulation. The parameter is being monitored as 'Solid waste Pollution from end-of-life products/ equipment (EL06). An appropriate monitoring plan has been put in place to monitor the parameter for the impact. However, the PO need to monitor the parameter as per regulation of Vietnamese government[62].

[61] https://thuvienphapluat.vn/van-ban/EN/Tai-nguyen-Moi-truong/Decree-No-38-2015-ND-CP-on-management-of-waste-and-discarded-materials/273750/tieng-anh.aspx

[62] https://importlicensing.wto.org/sites/default/files/members/134/Decree%20No.38_2015_ND-CP%20-%20Management%20of%20waste%20and%20scrap%20%28ENG%29_24.04.2015.pdf

					project owner will dispose the recyclable material to the recycling vendor and dispose the rest of materials to the third party vendors or return to manufacturers in compliance with the prevailing rules at the end of life time Hence the impact is harmless.							Hence, the scoring has found acceptable by the team.
	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury) (EL07)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	land use change (change from cropland /forest land to project land) (EL08)	The project activity is being developed in a non-crop/ non-forest land. Hence, there is no conversion in the land-use pattern.	Not Applicable	Not Applicable	Since the acquired land is not suitable for cultivation and also the acquisition was done on Willing seller-willing buyer basis.	Not Applicable	Not Applicable	Not Applicable	Since the land usage is already changed from non-crop land to solar power project land, monitoring is not required.	0	The impact is unlikely to cause any harm	The land for the project activity is a leased land /17/. The land was taken for development of project activity with mutual agreement. The PO has paid the land conversion fee. GCC Verifier has crosschecked the same with the Land acquisition Letter /17/ and

					The necessary conversion approvals are obtained and are in place							found appropriate and confirms that the land is not suitable for cultivation and has been taken for development of Solar Power Project. It is also confirmed from the interview with the stakeholder during on site visit /25/. Hence, GCC verifier concludes that the parameters is harmless and scored appropriately.
	Others (EL09)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Add more rows if required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Environment - *Water*	*Reliability/ accessibility of water supply (EW01)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Water Consumption from ground and other sources (EW02)	The water requirement for the project is minimal. The main consumption of water in the project is for cleaning of the solar modules with minimal requirement for domestic usage	Decree No: 02/2023/ND-CP Dated 01/02/2023 – The Water Resource Law[63] Legal Limit:	Not Applicable	Harmless Ground water will be consumed for the cleaning and domestic needs. Project is not located in the	Not Applicable	Not Applicable	Not Applicable	Project O&M team will monitor the quantity of water consumed for cleaning of modules per cleaning cycle. Monitoring parameter is Quantity of water consumed (Liters/year).	+1	There is no impact due to the consumption of water resources. The impact is positive compared to the baseline scenario where the water consumption is comparatively higher for thermal power projects. Since the impact i.e quantity of	The project activity use ground water for cleaning of modules and domestic use. Though the project activity is not located in the residential or rural areas which doesn't impact on the existing using pattern. GCC

[63] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Nghi-dinh-02-2023-ND-CP-huong-dan-Luat-Tai-nguyen-nuoc-513343.aspx

			Surface water exploitation: Less than 50000 m3/day and night Ground Water Usage: 12000 m3/day and night		residential or rural area hence there is no impact on the existing usage pattern.				Parameter will be monitored and data will be recorded in the plant logbooks. Please refer to the section B.7.2 for more details on monitoring		water saved is not being monitored this parameter is scored as "+1"	Verifier has cross checked the same from water consumption records /19/ and during site visit /25/. PO has considered +1 for this parameter, and it is verified as harmless.
	Generation of wastewater (EW03)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Wastewater discharge without/with insufficient treatment (EW04)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Pollution of Surface, Ground and/or Bodies of water (EW05)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Discharge of harmful chemicals like marine pollutants / toxic waste (EW06)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Others (EW07)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

	Add more rows if required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
		Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Environment – *Natural Resources*	*Conserving mineral resources (ENR01)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Protecting / enhancing plant life (ENR02)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Protecting / enhancing species diversity (ENR03)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Protecting / enhancing forests (ENR04)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Protecting / enhancing other depletable natural resources (ENR05)	This is a renewable energy power project generating power through the solar energy which is renewable source of energy and hence there is no impact	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Conserving energy (ENR06)	There is no scope for energy conservation since it is a solar power plant generating and supplying electricity through the grid. Hence not applicable.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Replacing fossil fuels with renewabl	The solar power project replaces fossil fuel with the renewable solar energy for the power	Not Applicable	Not Applicable	Harmless The overall impact is	Not Applicable	Not Applicable	Not Applicable	Considering the occurrence of emission reductions through the electricity	+1	The impact is positive compared to the baseline scenario where	The project activity will replace fossil fuel with the installation of renewable solar

	e sources of energy (ENR07)	generation by installing the solar power plant which would have been otherwise generated from the fossil fuel dominant			positive compared to the baseline alternative				generation from the Solar power project. This parameter will be monitored through the monthly Power generation from the Solar Project. Monthly electricity generation will be monitored through the energy meters installed at the substation. Energy Generation reports will be provided for the verification of generation.		the grid connected electricity is being generated from the dominated fossil fuels. impact during the project lifetime. Since the impact is being monitored to demonstrate the positive impact during the project lifetime, the parameter is scored as +1	energy for the power generation, which would have been otherwise generated from the fossil fuel dominant grid connected power plants. The same is monitored through the monthly generation and invoices report /13/. The same is confirmed during the onsite visit /25/. Evaluation found Harmless. The same is acceptable to the GCC project verification team. Hence the scoring +1 is acceptable.
	Replacing ODS with non-ODS refrigerants (ENR08)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Others (ENR09)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Add more rows if required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Net Score:		**+7**
Project Owner's Conclusion in PSF:		The Project Owner confirms that the Project Activity will not cause any net harm to the 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.

Appendix 6. Social Safeguard (S+)

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[64] 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*	*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*	*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*	*-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*

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

					*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"***	*Activity is likely to cause harm and shall be indicated as **Harmful***		*along with the data source*			*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 activity generates long term job opportunities during the operation the project activity.*	In compliance to Labour Act Code No.45/2019/QH14 dated 20/11/2019[65] New Legal Policy - Compulsory social insurance, unemployment insurance, and health insurance contributions for Vietnamese workers[66]	Not Applicable	Harmless As the impact is positive in nature	Not Applicable	Not Applicable	Around 17 number of people employed by the project activity will be monitored through checking employee records or the Pension contribution acknowledgement as per the new legal policy.	+1	There is no mandatory law to generate permanent employment from the project activity, however, project Owner has been decided to provide training to the local people & generate permanent employment for local people. Therefore, this parameter	The project activity generates long term job opportunities during the operation of the project activity with non-discrimination policy. The same is monitored and keep records by employment records/22/ and complying host country minimal wage requirements. The monitoring approach found acceptable. Evaluation found Harmless. The same is acceptable to the GCC project

65 http://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=110469&p_count=13&p_classification=01#:~:text=The%202019%20Labor%20Code%20expands,and%20supervised%20by%20the%20employer.%22

66 https://thuvienphapluat.vn/chinh-sach-phap-luat-moi/vn/thoi-su-phap-luat/tu-van-phap-luat/44351/muc-dong-bhxh-bat-buoc-bhtn-bhyt-nam-2023

										will be scored.	verification team. Hence the scoring +1 is acceptable.
	New short-term jobs (< 1 year) created/ lost (SJ02)	. Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Sources of income generation increased / reduced (SJ03)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04) *(human rights)*	Project Owner establishes the policy to ensure that there is no discrimination based on gender, racism, religion etc. during the recruitment process.	Company policy on non-discrimination.	Not Applicable	Harmless Project Owner establishes the policy to ensure that there is no discrimination based on gender, racism, religion etc. during the recruitment process. Grievance redressal committee will be formed to address any complaints/ grievance received on discrimination practices	Not Applicable	Not Applicable	Monitoring parameters. 1.Company policy on non-discrimination practices. 2.Number of complaints received on discrimination practices. The data will be monitored on continuous basis, and recorded annually. Please refer to section B.7.2 for more details.	+1	Project owner strictly avoid any discrimination practices while hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities. Project owner ensures that equality of opportunity and treatment of all individuals to fully develop their talents	The impacts being monitored throughout crediting period by parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' and is verified under section D.3.7 of this report. The employment was verified from employment records /22/ and during the on-site audit/25/ and by interviews and it was accepted by the GCC Verification team that appropriate monitoring plan is going to be implemented.

										and skills according to their aspirations and preferences, and to enjoy equal access to employment as well as equal working conditions.	
Social - *Health & Safety*	*Disease prevention (SHS01)*	There is no scope for disease prevention since it is a solar power plant generating and supplying electricity from renewable source through the grid.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Occupational health hazards (SHS02)	The scope of Occupational health hazards including monitoring is redundant to the parameter Reducing / increasing accidents/Incidents/fatality (SHS03). Hence the parameter is addressed in SHS03. Therefore, it is not applicable.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	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.	In compliance to the Law on OSH policy- - Law No.84/2015/QH13 - Law on Occupational Safety And Health [67]	Not Applicable	Harmless By following OSH policy guidelines, and imparting periodic trainings and providing PPE kits to employees and visitors	Not Applicable	Following OSH Guidelines as follows Imparting Trainings, Keeping Sign boards Providing PPE Kits.	Project Owner monitors the following parameters. 1.Number of accidents/ incidents reported. This parameter will be continuously monitored and accidents/incident registers will be maintained on annual basis.	+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	PO has well onsite established OSH records /29/ and training records. /28/,/21/ 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. GCC Verifier has

[67] http://www.ilo.org/dyn/natlex/docs/MONOGRAPH/99774/119205/F-595449136/VNM99774.pdf

								Please refer to section B.7.2 for more details.		for avoiding accidents at site. Since the parameter is having the impact on the employees this parameter is being considered for monitoring to demonstrate that impact is neutral during the project operational period. Therefore this parameter will be scored +1.	cross checked the same and also established it as harmless during the onsite audit by interviewing the stakeholders. GCC Verifier has also cross checked the annual OSH guideline[68] provided by the PO and confirmed that there is a well-established safety procedure available at site. PO has considered +1 score for this parameter and, it is verified as harmless.
	Reducing / increasing crime (SHS04)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Reducing / increasing food wastage (SHS05)	There is no scope for Reducing / increasing food wastage since it is a solar power plant generating and supplying electricity through the grid. Hence it is not applicable.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	*Reducing / increasing food wastage (SHS05)*	Not Applicable
	Reducing / increasing indoor air	This is a renewable energy power generation project through solar power and	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

[68] http://www.ilo.org/dyn/natlex/docs/MONOGRAPH/99774/119205/F-595449136/VNM99774.pdf

	pollution (SHS06)	supplying electricity to the national grid. Hence there is no impact on indoor air pollution									
	Efficiency of health services (SHS07)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Sanitation and waste management (SHS08)	Project will generate domestic waste during construction and operation of the project.	Decree No. 08/2022/ND-CP[69] dated 10/01/2022- Elaboration of several articles of the law on environmental protection Legal Limit: Less than 300 Kgs/day	Not Applicable	Harmless The project will have proper sanitation facilities (during construction portable toilets, during operation permanent toilets) for both men and women as per factories act and domestic waste generated will be disposed as per local regulations.	Not Applicable	Not Applicable	Disposal records related to garbage collection, industrial/hazardous waste management and disposal as mentioned in EL02, EL04, EL06 will be maintained at the plant site Further the toilets and soak pits at the site are already constructed and are maintained regularly. Please refer to section B.7.2 for more details.	+1	Management will ensure proper disposal of sanitary and domestic waste through actual user, waste collector or operator of the disposal facility, 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,	In the solar power plant sanitation and waste management is very less. However, PO has Waste management plan[70] for the project site and as per regulation /19/. GCC Verifier has verified the same during the on-site audit and found appropriate and shall not cause harm to the environment & society. PO has considered +1 score for this parameter and, it is verified as harmless.

[69] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Decree-08-2022-ND-CP-elaboration-Articles-of-the-Law-on-Environmental-Protection-507203.aspx

[70] https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Decree-08-2022-ND-CP-elaboration-Articles-of-the-Law-on-Environmental-Protection-507203.aspx

										waste collection areas will be away from natural drainage channels Therefore this parameter will be scored +1.	
	Other health and safety issues (SHS09)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Add more rows if required	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Social - *Education*	*specialized training / education to local personnel (SE01)*	The employees will receive on job training as per training needs. It imparts a positive impact by helping employees in all-round development.	There is no legal requirement from local authority to provide training to local people	Not Applicable	Harmless It is a positive impact.	Not Applicable	Not Applicable	The following parameters will be monitored. 1.Number of trainings provided to the site employees. This will be monitored on annual basis and the details will be recorded in training logbooks. Please refer to section B.7.1 for more details.	+1	The project Owner will provide regular job related training to their workers.. Hence this parameter will be scored.	PO has mentioned that they will provide required training to the workers. GCC Verifier has cross checked the same and also established it as harmless during the on-site audit by interviewing the stakeholders. GCC Verifier has also cross checked the training records /21/ provided by the PO and confirmed that there is a well-established training procedure available at site. PO has considered +1 score for this parameter and, it is verified as harmless.

	Educational services improved or not (SE02)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Project-related knowledge dissemination effective or not (SE03)	The employees will receive on job training as per training needs. It imparts a positive impact by helping employees in all-round development.	Not Applicable	Not Applicable	Harmless It has a positive impact.	Not Applicable	Not Applicable	No of Trainings	Not Applicable	This has a positive impact.	Not Applicable
	Other educational issues (SE03)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Add more rows if required (SE04)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Social - *Welfare*	*Improving/ deteriorating working conditions (SW01)*	The scope of Improving/ deteriorating working condition is redundant to the parameter Avoiding discrimination when hiring people from different race, gender, ethnics, religion, marginalized groups, people with disabilities (SJ04). Hence the monitoring of Improving/ deteriorating working conditions has been performed under the parameter SJ04. Hence it is not applicable.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

	Community and rural welfare (indigenous people and communities) *(SW02)*	There is a positive impact on the community and rural welfare.	Voluntary Action	Not Applicable	Harmless. Project activity implementation contributes to the Economic, Environmental, Economical, and social well-being for the community and Leads to the infrastructure development	Not Applicable	Not Applicable	Project owner will undertake and facilitate community needs on voluntary basis as and when any request received from the local communities. The following parameters will be monitored. 1.Community development activities. This will be monitored on annual basis and the details will be recorded. Please refer to section B.7.1 for more details	+1	Project owner will keep interacting with the local community and identify the minimum accessibility needs of the community from time to time. By implementing the project activity project owner has already been contributed to local economic development, employment creation etc. This is a continuous process during the project lifetime.	The project activity has claimed to create a number of activities directed to the local community. At the time of project verification, the project activity has organised activities directed to local population and improvement of local welfare. This has been validated by the CSR activities records /24/, On-site audit /25/ and interview. PO has considered +1 score for this parameter, and it is verified as harmless.
	Poverty alleviation (more people above poverty level) (SW03)	Though the project creates certain no of employment the impact is not considerable in scale.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Improving / deteriorating wealth distribution/ generatio	Though the project creates certain no of employment the impact is not considerable in scale.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

	n of income and assets (SW04)										
	Increased or / deteriorating municipal revenues (SW05)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Women's empowerment (SW06) *(human rights)*	The project owner has the non-discrimination policy on recruitment and remuneration. (i.e right of equal pay). This ensures there is no impact	Resolution No. 28/NQ-CP dated March 03, 2021 on issuance of national strategy for gender equality in 2021 - 2030[71]	Not Applicable	Harmless	Not Applicable	Not Applicable	The following parameter will be monitored. 1. Number of jobs provided to women. This parameter will be monitored through the Employment records. The data will be monitored on annual basis. Please refer to section B.7.1 for more details	+1	Project Owner ensures that there is no gender inequality while providing the job opportunities for the project operations. Will maintain and enforce the organizational policy to avoid any gender discrimination in the company. Project owner also priorities the women employee at the project operation from the local community to empower them by	Company has employed women resource in compliance with the equal remuneration and minimum wage act. GCC Verifier has cross checked this with employment records /21/ and confirms that the PO has wiling to contribute towards women empowerment. PO has considered +1 score for this parameter and, it is verified as harmless.

[71] https://lawnet.vn/en/vb/Resolution-28-NQ-CP-2021-issuance-of-national-strategy-for-gender-equality-2021-2030-73CB8.html

										providing the income sources which would not have been happened in the absence of the project activity. This parameter will be scored +1.	
	Reduced / increased traffic congestion (SW07)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Exploitation of Child labour *(human rights)* *(SW08)*	Project activity provides employment in the region. However, project owner adheres to the Children Law ensuring that there is no exploitation of child labour	1.Code No.45/2019/QH14 [72] – The Viet Nam Labour code 2019 Legal Limit: Minimum working age of workers is 15 years 2.Law No. 102/2016/QH13 dated on 05/04/2016 – Children Law Pursuant to the Constitution of the Socialist Republic of Vietnam[73]	Not Applicable	Harmless Child Labour and forced labour are strictly prohibited by law	Not Applicable	Not Applicable	Project owner monitors and ensures that no child labour is working at the site. Monitoring Parameter: Zero (0) Child labour is working at the site. This parameter will be monitored on continuous basis and reported annually. This data will be monitored through employment records and interview with site people.	+1	Project owner will strictly monitor and ensures that no child labour is working at the site and no forced labour is working at the site. This parameter will be scored +1.	Employment to children below 15 years in any organization in Viet Nam is strictly prohibited by law. The HR department of PO also abide by these rules and regulation of Viet Nam. GCC Verifier team has cross checked the evidence and also through the onsite audit confirms that there is no child labour working at the project site. PO has considered +1 score for this parameter and, it is verified as harmless

[72] http://boluatlaodong2019.molisa.gov.vn/lang_en/topic/viet_nam_labour_code/index
[73] https://thuvienphapluat.vn/van-ban/Van-hoa-Xa-hoi/Law-102-2016-QH13-children-312407.aspx

								Please refer to section B.7.2 for more details.			
	Minimum wage protection *(human rights) (SW09)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Abuse at work place.(with specific reference to women and people with special disabilities / challenges) *(human rights) (SW10)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Other social welfare issues (SW11)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Avoidance of human trafficking and forced labour *(human rights)* *(SW12)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Avoidance of forced	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

	eviction and/or partial physical or economic displacement of IPLCs *(human rights)* *(CW13)*										
	Provisions of resettlement and human settlement displacement *(human rights)* *(CW14)*	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Threatened Livelihood	Increased economic and infrastructure activity may leads to increase levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment.	Not Applicable	The proposed project is a clean energy project and will not have major pollution sources associated with it. Since the lands procured are not much productive for agricultural farming there is no loss of livelihood due to the loss of land. More over since the land is procured on lease basis this will create	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	There is no loss or threat to the local livelihood or endangered species or environment due to the implementation of the project activity. Since the impact is neutral compared to the baseline scenario this	Not Applicable

				the sustained income to the farmers who has given the land for lease.						parameter will not be scored.	
	Communal Harmony	The project activity has several positive impacts such as improving living conditions and promote community involvement via economic development, revenue generation and improved infrastructure.	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Since the impact is neutral and addressed in the following parameters such as Threatened Livelihood, Community and rural welfare (indigenous people and communities) (SW02) and compared to the baseline scenario this parameter will not be scored.	Not applicable
	Social inequality /safeguards	Social inequality in work place effects the employees working at the site.	Not Applicable	Social inequality is strictly avoided as per company HR policy. All the employees at the work site will be treated equally without any discrimination based on gender, community, racism, disability, height and weight. All the employees	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	The project owner will not encourage or promote the social inequality in the project activity. In addition, project management promotes avoidance of social inequality in the project region and promotes fare opportunity	Not Applicable

				will be treated on equal basis and provided with equal minimum wages, working conditions and growth opportunities						to all the genders. This parameter will not be scored.	
Net Score:	**+8**										
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. United Nations Sustainable Development (SDG+)

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 column ofr guidance.*	*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 correspondi ng target, frequency of monitoring and data source*	*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)*
Goal 1: End poverty in all its forms everywhere	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 2: End hunger, achieve food security and improved nutrition and promote	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

sustainable agriculture									
Goal 3. Ensure healthy lives and promote well-being for all at all ages	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 5. Achieve gender equality and empower all women and girls	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 6. Ensure availability and sustainable management of water and sanitation for all	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
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. Indicator: 7.2.1 Renewable energy share in	Yes	Quantity of net electricity supplied to the grid by project activity in year y	Annually generate around 60,413 MWh of renewable energy using solar energy	Project is already in operation since 13/05/2019 and complies with the SDG targets.	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 meters remain	The project activity contributes towards this goal by replacing the generation of fossil fuel dominated grid in baseline by renewable solar-based power generation. The contribution towards SDG goal is	Project Owner meets the requirement of UN- level SDG goal. The same is acceptable to the GCC project verification team.

	the total final energy consumption						under the custody of state utility	being monitored by the parameter '$EG_{PJ,y}$', 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	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal	Yes	Project activity supports creation of short term and long term job opportunities for men and women during the construction and operation of the project activity. Supports economic productivity through technology up gradation and innovation through training of labour in high intensive sector for both the genders. 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 Average earning of females and male employees engaged in the	Project creates new employment and generates income for 17 no of people during the project lifetime Through Project activity economic development has been achieved in the project location by creating employment opportunities to the other allied services and indirect employment for men and	Project creates new employment and generates income for 17 no of people including men and women during the project lifetime..	1. Employment as per the national labour and company law including national gender policy 2. Maintains company Internal Labor Regulation to create standard operating procedures (SOPs) to follow and maintain safe and secure work environment	Project owner monitors the implementation of the policies and employee grievances if any, through the separate HR manager and site in charge. Quantity of employment for both men and women will be monitored through employment records	The contribution towards SDG goal is by providing employment by creating long term jobs for the project activity. This is being monitored by the parameter 'Long-term jobs (> 10 year) created/ lost (SJ01)' in the monitoring plan and is found	Project Owner meets the requirement of UN- level SDG goal. The same is acceptable to the GCC project verification team.

	pay for work of equal value. **Indicator : 8.5.1** Average hourly earning of employee by sex, age, occupation and perons with disabilities.		project and segregated by age and persons with disabilities	women. Create employment for minimum of 10 people with minimum wages as per the minimum wages act of host country		3. paying the wages as per the minimum wages act of the country. Create employment for minimum of 10 people with minimum wages as per the minimum wages act of host country	which will include Name, Gender and salary etc.	adequate. This has been discussed under section D.3.7 of this report.	
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 10. Reduce inequality within and among countries	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 12. Ensure sustainable consumption and production patterns	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 13. Take urgent action to combat	13.2 Integrate climate	Yes	Amount of emission reductions achieved by project (tCO_2e)	Achieve annual emission reductions of	Reductions in Emissions (tCO_2e) per	Achieve annual average	Measurement of monthly energy	The contribution towards SDG goal is	Project Owner meets the

climate change and its impacts	change measures into national policies, strategies and planning **Indicator:** 13.2.2 Total greenhouse gas			49,720 tCO_2e over the crediting period for the project	unit of product due to project activity.	emission reductions of 49,720 tCO_2e over the crediting period for the project	generation from the project. Calculation of amount of actual emission reductions achieved by the project	being monitored by the parameter 'CO_2 emission reduction' in the monitoring plan and is found adequate. This has been discussed under section D.3.7 of this report.	requirement of UN- level SDG goal. The same is acceptable to the GCC project verification team.
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
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	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

build effective, accountable and inclusive institutions at all levels									
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
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	

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[74];
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

[74]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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