GS Validation report form

(Version 02.0)

VALIDATION REPORT	
Title of the project activity	Çamlıca II HEPP GS ID: GS1173
Version number of the validation report	05
Completion date of the validation report	06/01/2023.
Version number of PDD to which this report applies	Version: 15; Dated: 04/01/2023
Date when PDD was uploaded for global stakeholder consultation	N/A
Project participant(s)	1-HGG Enerji Üretim Anonim Şirketi (Project Owner) 2-GTE KARBON SÜRDÜRÜLEBİLİR ENERJİ EĞİTİM DANIŞMANLIK VE TİC. AŞ (Project Developer)
Host Party	Turkey
Estimated annual average GHG emission reductions or net removals in the crediting period (tCO2e)	44,145 tCO_2e per annum
SDG Impacts:	SDG 7: Access to affordable and clean energy SDG 8: Decent Work and Economic Growth SDG 13: Climate Action
Sectoral scope(s) and selected methodology(ies)	01 ACM0002, version 20.0 “Consolidated baseline methodology for grid connected electricity generation from renewable sources”
Name of VVB	Carbon Check (India) Private Limited
Name, position and signature of the approver of the validation report	 Vikash Kumar Singh, Compliance Officer

SECTION A. Executive summary

Purpose and general description

The Project Participant HGG Enerji Üretim Anonim Şirketi (Project Owner) has appointed /10/ the VVB, Carbon Check (India) Private Ltd. to perform an independent validation of the Design Certification Renewal of the Gold Standard large scale Project Activity "Çamlıca II HEPP" in the host country of Turkey (hereafter referred to as "project activity"). This report summarises the findings of the validation of the Design Certification Renewal of the project, performed on the basis of Gold Standard criteria for registration, UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. This report contains the findings and resolutions from the validation and a validation opinion.

As per the PDD /02/, the project activity "Çamlıca II HEPP" is a run of river type project with a capacity of 17.58MWe. The project is located in Kayseri Province of Turkey. The project activity aims to generate the electricity by using the water from Çamlıca I Regulator and HEPP. The main principle behind the project design is to make use of the elevation difference of 69 m which is approximately 1500 m away from the Çamlıca Village.

The project will reduce emission reduction of 44,145 tonnes of annual CO_2e and total of 220,727 tonnes of CO_2e during the 7-year crediting period. The project 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 activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project in accordance with the Gold Standard requirements for additionality

The purpose of a validation is to have a thorough and independent assessment of the proposed project activity against the applicable Gold Standard and CDM requirements, in particular, the project's baseline, monitoring plan and the project's compliance with relevant UNFCCC and Gold standard for Global Goals criteria. These are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all Gold Standard for Global Goals voluntary projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of voluntary emission reductions (VERs).

Location

The project activity "Çamlıca II HEPP" is located in Kayseri Province of Turkey. Nearest settlement to the project site is Çamlıca village within the boundaries of Yahyalı district. GPS coordinates of the project site is mentioned in section A.2 of the PDD/02/.

Scope of the validation

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD /02/ is reviewed against the relevant criteria (see above) and decisions by the Gold standard secretariat and CDM Executive Board, including the approved baseline and monitoring methodology /B02/. The validation team has, based on the recommendations in the CDM Validation and Verification Standard and GS4GG Principles and Requirements, version 1.2 /B03-1/ employed a rule-based approach, focusing on the identification of significant risks for project implementation and the generation of VERs.

The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

While carrying out the validation of the Design Certification Renewal, CCIPL determines if the project activity complies with the requirements of the applicability conditions of the selected methodology /B02/, guidance issued by the Gold Standard and assesses the claims and assumptions made in the PDD /02/ without limitation to the information provided by the project participants.

The Validation team confirms the contractual relationship signed between the VVB, Carbon Check (India) Private Ltd. and the Project Developer/ Project Representative. The team assigned to the validation meets the Carbon Check (India) Private Ltd.'s internal procedures including the UNFCCC/Gold Standard for Global Goals

requirements for the team composition and competence. The projects team has conducted a thorough contract review as per UNFCCC and Carbon Check procedures and requirements.

Validation methodology

The validation has been performed as described in the GS and constitutes the following steps:

- Document review of data and information (PDD /02/ and the relevant documents including the reference to information relating to projects or technologies similar to the proposed project activity and review based on the approved methodology /B02/ being applied and of the appropriateness of formulae and accuracy of calculations).
- Cross checks between information provided in the PDD /02/ and information from other sources.
- Follow up actions for cross checking data and on-site assessment.
- Reference to available information
- Issuance of Validation Report.

Validation Process

The validation consists of the following four phases:

I. A desk review of the project design documents
   - A review of data and information;
   - Cross checks between information provided in the PDD /02/ and the information from sources with all the necessary means without limitations to the information provided by the project proponent.
   - Confirmation of the site visit dates and Validation work plan.

II. On-site visit and follow-up interviews with the project stakeholders
   - Interviews with the relevant stakeholders in the host country with personnel having knowledge with the project development via telephone, email or direct on-site visits;
   - Cross checking between information provided by interviewed personnel with all necessary means without limitations to the information provided by the project proponent;

III. Reference to available information's relating to projects or technologies similar projects under validation and review based on the approved methodology /B02/ being applied of the appropriateness of formulae and accuracy of calculations.

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

The report is based on the assessment of the PDD /02/ undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, site visit, and stakeholder interviews, review of the applicable/applied methodology /B02/ and its underlying formulae and calculations.

This report contains the findings and resolutions from the validation and a validation opinion on the proposed project thus confirming the project design as document is sound and reasonable and meets the stated requirements and identified criteria.

The validation protocol describes a total of 05 (Five) findings which include:

- 04 (Four) Corrective Action Requests (CARs);
- 01 (One) Clarification Requests (CLs);

All findings are closed during the validation process.

Conclusion

Carbon Check (India) Private Ltd. concludes the validation of the Design Certification Renewal with a positive opinion and that the Project Activity "Çamlıca II HEPP" as described in the PDD /02/, meets all applicable Gold Standard and CDM requirements, relevant methodologies, tools and guidelines.

The selected baseline and monitoring methodology /B02/ is applicable to the project and correctly applied. Carbon Check (India) Private Ltd. therefore recommends the project to the Gold Standard for Global Goals for registration.

CCIPlL validation team has checked other standard platforms, such as Gold Standard. VCS, GCC etc to ensure that the project activity is not registered under any other standard to avoid double counting of VERs.

SECTION B. Validation team, technical reviewer and approver

B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Team Leader/ Technical Expert	IR	Anand	Amit	CCIPL
2.	Acting Team Leader	IR	Choudhary	Aparna	CCIPL
3.	Local Expert	EI	Erduran	Muhammet Ali	CCIPL
4.	Technical reviewer	IR	C	Indumathi	CCIPL

Audit Team Experience:
The team composition is linked to the methodology and local experience in the host country.

Amit Anand: Qualified lead assessor and internal technical reviewer for offset projects validations and verifications under CDM, VCS and Gold Standard (GS) and actively been involved in the validation and verification or internal technical review of more than 20 offset projects. He is qualified as technical expert for TA1.1, 1.2 and 13.1 under CDM Sectoral Scope categorization He holds a Masters in Environment Management from Forest Research Institute, Dehradun and B.Sc. Environmental Sciences from Ramjas College, in University of Delhi. He also has attended training in ISO 14001:2004 - Lead Auditor Training Course and for Social Carbon Standard Training. He was involved in the following Projects submitted to UNFCCC for Request for Registration and issuance: UNFCCC Project Reference Numbers: 7484, 7820, 7821, 7849, 7881, 7889, 8350, 9489, 0925, 6864, and 0177. He was also involved as validation and verification assessor in the following Gold Standard Projects: GS 1078, GS 976, GS 850, and GS 916 PoA (GS 1231 (VPA 01) GS 1029 (VPA 02), GS 1030(VPA 03), GS 1031(VPA 04)).

Aparna Choudhary: Qualified team leader and technical expert for offset projects validation and verification under CDM, VCS and Gold Standard (GS). She is qualified as a technical expert for TA 1.2 and 3.1 She was involved in more than 30 submitted projects under CDM, VCS and Gold Standard (GS)

Indumathi C: She is a qualified internal technical reviewer for validation and verification of GHG emission reduction projects under CDM, VCS and Gold Standard (GS). She is an appointed Team Leader and Technical Expert for technical areas TA 1.1, 1.2, 3.1, 13.1 & 13.2. She has more than 13 years of work experience in climate change mitigation, renewable energy, energy efficiency and energy access. She has worked with various Designated Operational Entities like TUV NORD, TUV Rheinland and 4KES for more than 250 GHG emission reduction projects under different carbon crediting mechanisms. She is a certified GHG Auditor and Energy Manager (Bureau of Energy Efficiency, Government of India).

SECTION C. Means of validation

C.1. Desk review

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

C.2. On-site inspection

In the view of current situations of COVID-19 pandemic prevalent all around, travel restrictions have been put in place for domestic as well as international travel around the world. The Ministry of Interior (Govt. of Turkey) had banned flights and all direct travel from India, Bangladesh, South Africa, Brazil, Sri Lanka, and Nepal due to new variants of the Coronavirus.

Due to the travel restriction imposed by the Host country (Govt. of Turkey), the Team Leader (TL) & Technical Expert (TE) of the Validation Team (VT) couldn't travel to the project site for the purpose of on-site visit.

A site inspection was carried out by Mr. Muhammet Ali ERDURAN (Local Expert of CCIPL) to check the compliance of the project with registered PDD for the validation of project activity, and to confirm that the project is developed as described in the PD. The project site was inspected on 05/11/2021, /11/ by the local expert of CCIPL.

The meeting was conducted at the project site office in Çamlıca II Hydroelectric Power Plant is located in Kayseri Province of Turkey. Interviews with the Plant Manager of Çamlıca II Hydroelectric Power Plant Mr. Murat were also conducted on 05/11/2021 at the project site office.

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The VT applied standard auditing techniques (physical on-site visit and remote assessment) while verifying the project details, as discussed below:

- Desk review of PDD /01/,/02/ and to confirm that the project is in compliance with PD of previous crediting period and there is no change in the eligibility, baseline scenario and additionality of the project during this crediting period and confirm that there is no change of the project design, operation and monitoring plan.
- Desk review of relevant validation report to cross check correctness and consistency of information.
- On-site visit by the local expert of CCIPL
- Interview with the Project Owner and Site in-charge confirming project details such as installed capacity, location, monitoring, emission reduction calculation)
- Interview with the Project Owner and Site in-charge confirming the implementation and operation of the project activity,
- Interview with Project Owner and Site in-charge regarding monitoring of electivity generation, recording of data, archiving of data and QA/QC procedure
- Review of GHG emission reduction calculation sheet /04

Duration of on-site inspection: 11/10/2021				
No.	Activity performed on-site	Site location	Date	Team member
1.	Project implementation, and technical specifications of project equipment.	Kayseri Province of Turkey.	05/11/2021	• Muhammet Ali Erduran (on-site) • Amit Anand &

				Aparna Chaudhary (Remotely)
2.	changes in dimensions of civil structures and other changes to project design, emission reduction calculation, impact on additionality	Kayseri Province of Turkey.	05/11/2021	• Muhammet Ali Erduran (on-site) • Amit Anand & Aparna Chaudhary (Remotely)
3.	Impacts of the proposed or actual changes to the registered GS project activity have not been assessed and provided in the revised PDD	Kayseri Province of Turkey.	05/11/2021	• Muhammet Ali Erduran (on-site) • Amit Anand & Aparna Chaudhary (Remotely)
4.	An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the PD	Kayseri Province of Turkey.	05/11/2021	• Muhammet Ali Erduran (on-site) • Amit Anand & Aparna Chaudhary (Remotely)

The verification team has carried out interviews (refer section 2.3) in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the GS

C.3. Interviews

A site visit to the project activity was undertaken on 05/11/2021 to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters.

	Date	Name	Organisation	Topic
/a/	05/11/2021	Mr Murat (Plant Manager.)	CAMLICA II Hydro Power Plant	• Project Design • Organisation background • Project Implementation plan • Crediting period's start date and Project Location • Project background information • Baseline studies/ literature • Baseline Scenario

				• Baseline Identification and Additionality • Monitoring and reporting documentation • Qualification and Training • Quality Assurance – Management and operating system • Social and Environmental Impacts • Compliance with relevant laws • Roles and responsibility • Observations of established practices
/b/	05/11/2021	Ms. Merve Aygence	HGG Enerji Üretim Anonim Şirketi	• Project Design • Organisation background • Project Implementation plan • Crediting period start date and Project Location • Project background information • Baseline studies/ literature • Baseline Scenario • Baseline Identification and Additionality • Monitoring and reporting documentation • Qualification and Training • Quality Assurance – Management and operating system • Social and Environmental Impacts

				• Compliance with relevant laws • Roles and responsibility • Observations of established practices
/c/	05/11/2021	Eser Nazlı Soner Çakar Hacı Çakar	Yeşilköy Village/Yahyalı District/Kayseri Province, Village Head of Yeşilköy Village Yeşilköy Village/Yahyalı District/Kayseri Province, farmer/worker Yeşilköy Village/Yahyalı District/Kayseri Province, farmer	Interview with the local stakeholder for the project: Presence of grievance logbook, grievance mechanisms, ongoing grievances. Communication with the plant manager

SECTION D. Validation findings

D.1. Description of project activity

Means of validation	Document Review, Interview
Findings	--
Conclusion	The PDD /02/ contains a description, which provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation. The location of the project activity is clearly defined in the PDD /02/. The project is located in Kayseri Province of Turkey. Nearest settlement to the project site is Çamlıca village within the boundaries of Yahyalı district. Project site located approximately 120 km away to the south of Kayseri city centrum.

	The project activity aims at reducing the GHG emission by using the renewable energy for the production of electricity and supplying the electricity produced to the national grid. The technical specifications of the project activity as mentioned in the section A.3 of the PDD has been verified during the on site audit and evaluation of the documentary evidences/13/ The date of design certification is 11/04/2022. The project was registered with the first crediting period started on 01/01/2015 and valid till seven years. The crediting period for the registered GS large scale project activity is being renewed in accordance with the §5.1.1 (d) of the GS4GG Principles and Requirements version 1.2/B03-1/. The design of the project activity was assessed through remote audit and through the review of documents /02/. Validation team also interviewed representative of the project participant HGG Enerji Üretim Anonim Şirketi and the project developer GTE KARBON SÜRDÜRÜLEBİLİR ENERJİ EĞİTİM DANIŞMANLIK VE TİC. AŞ. The project owner name has been changed from Derin Enerji Üretim San. ve Tic. A.Ş to HGG Enerji Üretim Anonim Şirketi on 23/12/2020 and the same is validated from the company name change evidence provided by the PP./06/

D.2. Application of selected baseline and monitoring methodology and selected standardized baseline

D.2.1. Applicability of methodology and standardized baseline

Means of validation	Document Review, Interview
Findings	--
Conclusion	The large-scale project "Çamlıca II HEPP" applies the methodology "ACM0002, version 20.0 "Consolidated baseline methodology for grid connected electricity generation from renewable sources" for the emission reduction by the generation of electricity using the renewable energy source i.e hydro power plant. Applicability criteria for the baseline methodologies /B02/ are assessed by the validation team by means of document review and interview. It is agreed in the validation team's opinion that the project activity fully meets the criteria as described below

Applicability criteria as per the methodology "ACM0002, version 20.0 /B02/	**Means of Validation**
1. This methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Install a Greenfield power plant; (b) Involve a capacity addition to (an) existing plant(s); (c) Involve a retrofit of (an) existing operating plants/units; (d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or (e) Involve a replacement of (an) existing plant(s)/unit(s).	Validation Team on the basis of review of PDD and remote audit interviews confirms that the project activity is the installation of a hydro power plant/unit (with a run of river reservoir.) Thus, the methodology is applicable for this project activity.
2 The methodology is applicable under the following conditions: (a) The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar	a) Validation team on the basis of review of the PDD and remote audit interviews confirms that the project activity is a renewable energy power plant of type hydro power plant. And thus, methodology is

	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.	applicable under this condition. b) This condition is not applicable as project does not involve capacity additions, retrofits, or replacements.
	3. In case of hydro power plants, one of the following conditions shall apply:[1] 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 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	The validation team on the basis of review of the PDD/02/ and remote interviews confirms the following: a) The project activity is implemented in an existing riverbed, with no change in the volume of any of reservoirs. b) The power density calculated for the entire project activity is greater than 4 W/m^2 c) The project activity is a run of river reservoir type and the power density calculated for the entire project activity is greater than 4 W/m^2 d) The project activity is not an integrated hydropower project and also the power density calculated for the entire project activity is greater than 4 W/m2. Thus, this condition is not applicable. Thus, on the basis of the above-mentioned assessment validation team confirms that the

1. [1] Project participants wishing to undertake a hydroelectric project activity that results in a new reservoir or an increase in the volume of an existing reservoir, in particular where reservoirs have no significant vegetative biomass in the catchments area, may request a revision to the approved consolidated methodology.

	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.	methodology is applicable for this project activity.
	4. 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 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 in different 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 of five years prior	On the basis of review of the PDD and remote interviews the validation team confirms that in case of Camlica-II HEPP, the project is a run-of-river type hydro energy plant, it does not use multiple reservoirs and is not an integrated hydropower project. Thus, this condition is not applicable.

	to the implementation of the CDM project activity.	
	5. The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of 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/units.	Validation team on the basis of review of the PDD and interview with the project proponent during the audit confirms that the project activities does not involve switching from fossil fuels to renewable energy sources at the site of the project activity nor the project is biomass fired power plant. Thus, the methodology is applicable under this condition.
	6. 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".	As the project is not a retrofit, rehabilitations, replacements, or capacity addition thus this condition is not applicable.
	On the basis of assessments of all the above points, validation team confirms that the project activity fully meets the applicability criteria as per the methodology "ACM0002, version 20.0 /B02/.	

D.2.2. Deviation from methodology

Means of validation	Document Review, Interview
Findings	--
Conclusion	Not Applicable.

D.2.3. Clarification on applicability of methodology, tool and/or standardized baseline

Means of validation	N/A
Findings	--
Conclusion	N/A

D.2.4. Project boundary

Means of validation	Document Review, Interview
Findings	--
Conclusion	The project boundary of the project activity has been identified in accordance with the methodology "ACM0002, version 20.0 "Consolidated baseline methodology for grid connected electricity generation from renewable sources". In accordance with the ACM0002, version 20/B02/ " The spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the CDM project power plant is connected to." On the basis of review of the PDD, supporting documents and remote interviews the validation team confirms that the project boundary for the Camlica II HEPP is defined as power plant components; three turbines, powerhouse, weir, substation and the national grid.

D.2.5. Establishment and description of baseline scenario

Means of validation	Document Review, Interview
Findings	NA
Conclusion	Validation team confirms that the baseline scenario opted by the project activity/02/ is in accordance with the requirements of the methodology ACM0002, version 20.0 "Consolidated baseline methodology for grid connected electricity generation from

	renewable sources". In accordance with the ACM0002, version 20 /B02/ "If the project activity is the installation of a Greenfield power plant, 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" There is no change in the baseline scenario from the registered project activity/02/ for the methodology ACM0002, version 20/B02/ and as demonstrated in the section B.4 of the PDD/02/, In the absence of the proposed project activity, the same amount of electricity is required to be supplied via either the current power plants or by increasing the number of thermal power plants thus increasing GHG emissions. The validity of the baseline has also been checked as per the Tool 11: "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, Version 3.0.1." Based on the steps provided in the tool, PP has demonstrated that the baseline is still applicable to the project activity. The latest version of the methodology ACM0002, version 20/B02/ has been used in the renewal of the crediting period of the project activity from the registered project activity. The baseline scenario has been assessed in accordance with the §404 of the VVS for the project activities, version 03/B01-1/.

D.2.6. Demonstration of additionality

Means of validation	Document Review, Interview
Findings	--
Conclusion	Validation team confirms that there is no change in the project implementation on the basis of review of the PDD/02/ and the additionality has been demonstrated during the first crediting period therefore there is no need to do the additionality assessment in the second crediting period. This is in compliance with the §407 of the CDM VVS for project activity /B01-1/ However, Ongoing financial need for the project activity has been demonstrated in accordance with the §4.1.52 of the GS4GG principles and requirements version 1.2. PP has provided the the contribution of carbon revenues and until few years carbon revenues have compensated most of the staff cost of the project and thus increases the profit.

D.2.7. Emission reductions

Means of validation	Document Review, Interview
Findings	--
Conclusion	According to the applied methodology /B02/, emission reductions /04/ would be calculated as follows: $ERy = BEy - PEy - LEy$Where:- ER_y = Emission reductions in year *y* (t CO_2e/yr) BE_y = Baseline emissions in year *y* (t CO_2/yr) PE_y = Project emissions in year *y* (t CO_2e/yr) 〖LE〗_y Leakage emissions in year y (t CO2e/yr) No leakage emissions are considered as it ia a renewable energy project based on hydro power. **Baseline emission calculation:-**

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

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 CDM 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)

Emission Factor Calculation:-

EFgrid,CM,y = Combined margin CO2 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 (tCO2/MWh) (Nationally accepted emission factor has been used. Validation team cross check the data by the link provided in the PDD/02/. Considering this is the second crediting period and the project is a hydro project,
combined margin is calculated as follows:
As the Value of Built Margin is 0.4153 and the value of Operating margin is 0.7258
CM = (BM x 0.75) + (OM x 0.25)
(0.7258 x 0.25) + (0.4153 x 0.75) = 0.4929 tCO2/MWh

Project Emission Calculation:-

For hydro power project activities that result in new single or multiple reservoirs and hydro power project activities that result in the increase of single or multiple existing reservoirs, project emissions calculations involve CH4 and CO2 emissions from the reservoirs, (PE_y) and estimated as follows:

If the power density (PD) of the project activities is greater than 10 W/m2 ; Project Emissions PE_y= 0

Power density is calculated as follows:-

$$\frac{Cap_{PJ} - Cap_{BL}}{A_{PJ} - A_{BL}}$$

Where:-

PD	=	Power density of the project activity (W/m^2)
Cap_{PJ}	=	Installed capacity of the hydro power plant after the implementation of the project activity (W)
Cap_{BL}	=	Installed capacity of the hydro power plant before the implementation of the project activity (W). For new hydro power plants, this value is zero
A_{PJ}	=	Area of the single or multiple reservoirs measured in the surface of the water, after the implementation of the project activity, when the reservoir is full (m^2)
A_{BL}	=	Area of the single or multiple reservoirs measured in the surface of the water, before the implementation of the project activity, when the reservoir is full (m^2). For new reservoirs, this value is zero

As the Power density of the project is 2594 W/m^2 /02/

	$PE_{HP,y} = 0$ The steps taken and the equations and parameters applied in the PDD /02/ to calculate emission reductions comply with the requirements of the selected methodology. The emission reduction calculation is completely traceable and verified by reviewing the ER spread sheet /04/ submitted by the PP.

D.2.8. Monitoring plan

Means of validation	Document Review, Interview
Findings	--
Conclusion	

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	**$EG_{PJ,grid,y}$**
Description of parameter	Net Electricity generated and delivered to the grid by the power plant in year y
Data unit	MWh/yr
Reported value	89,558 MWh/year
Measuring frequency	Continuous measuring
Recording frequency	Monthly reading
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	Electricity Meters (installed at the Gunder Hydro Power Plant). The configuration for both the meters is as provided below: **Main Energy Meter:** Make/model: LZQJXC Type: EMH Accuracy: 0.5s Serial number of main meter: 4241381 Date of initial calibration: 03/05/2014 Due date/year of calibration: Year 2024 **Backup Energy Meter:** Make/model: LZQJXC Type: EMH Accuracy: 0.5s Serial number of main meter: 4241382 Date of initial calibration: 03/05/2014 Due date/year of calibration: Year 2024 .
Is accuracy of the monitoring equipment as stated in the PDD?	Yes, the accuracy of the monitoring equipment is as stated in the PD/02/.
Calibration frequency /interval	The meters will comply with the EPDK regulations and as per regulation the calibration is valid for 10 years.

Company performing the calibration	TEIAS is responsible for the calibration of meters.

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	**A_{PJ}**
Description of parameter	Area of the reservoir measured in the surface of the water, after the implementation of the project activity,when the reservoir is full
Data unit	m^2
Reported value	6,776m^2
Measuring frequency	Once in each monitoring period
Recording frequency	Once in each monitoring period
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	N/A
Is accuracy of the monitoring equipment as stated in the PDD?	N/A
Calibration frequency /interval	N/A
Company performing the calibration	N/A

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	**Quantitative employment and income generation**
Description of parameter	Number of employed staff
Data unit	Numbers
Reported value	At least 11 people
Measuring frequency	Annually
Recording frequency	Annually
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment	N/A
Is accuracy of the monitoring equipment as stated in the PDD?	N/A

Calibration frequency /interval	N/A
Company performing the calibration	N/A

The outcome of the SDG7, SDG 8 and SDG 13 are proposed to be monitored in the design certification renewal of the large-scale project activity. The outcome of the SDG 13 is also used to monitor the total emission reductions generated from the large-scale project activity. SDG 13 shall be monitored through the monitoring methodologies ACM0002, version 20/B02/.
The other SDG impacts of this project activity (SDG 7 and SDG 8) will not be certified as 'Certified Impact Statements' and therefore, for these SDG impacts no specific methodologies for estimation and monitoring will be applied.
Section B.7.1. of the PDD/02/ outlines how SDG 7 and SDG 8 will be monitored.
All the parameters as listed in the PDD/02/ have to be monitored. The PDD /02/ provides the roles and responsibilities under monitoring organisation. The monitoring organization structure for the project has been provided. The QA/QC procedures have also been provided in the PDD/02/.

Based on site visit interview, validation team confirms that the above-mentioned monitoring parameters are appropriate and also in line with the requirements of the methodology ACM0002, version 20/B02/.

Validation team confirms that the monitoring plan complies with the requirements of the methodology, ACM0002, version 20/B02/, the monitoring arrangements described in the monitoring plan are feasible within the project design and that the PP is able to implement the described monitoring plan.

D.3. Duration and crediting period

Means of validation	Document Review, Interview
Findings	--
Conclusion	The start date of the crediting period for the project activity is 01/01/2022 /02/. This is the second crediting period (01/01/2022 to 31/12/2028) for the project activity and is after the expiry of the first crediting period from 01/01/2015 to 31/12/2021 and this has been verified by the GS4 GG Transition Annex. Start date of the crediting, expected operational lifetime and duration of the crediting period, have been provided in the PDD/02/; checked and found appropriate to the validation team.

D.4. Environmental impacts

Means of validation	Document Review, Interview
Findings	NA
Conclusion	The project activity involves Design Certification Renewal and thus this is not applicable to the project activity.

D.5. Local stakeholder consultation

Means of validation	Document Review, Interview
Findings	--
Conclusion	The project activity involves Design Certification Renewal and thus this is not applicable to the project activity. Although validation team has interviewed Mr Murat Muftuoglu at the time of site visit to check for grievance mechanism. There was a grievance expression process book which was maintained by Mr Murat. Thus, the VT confirms that effective mechanism for addressing the grievance of stakeholders is in place and the same was followed by the PP.

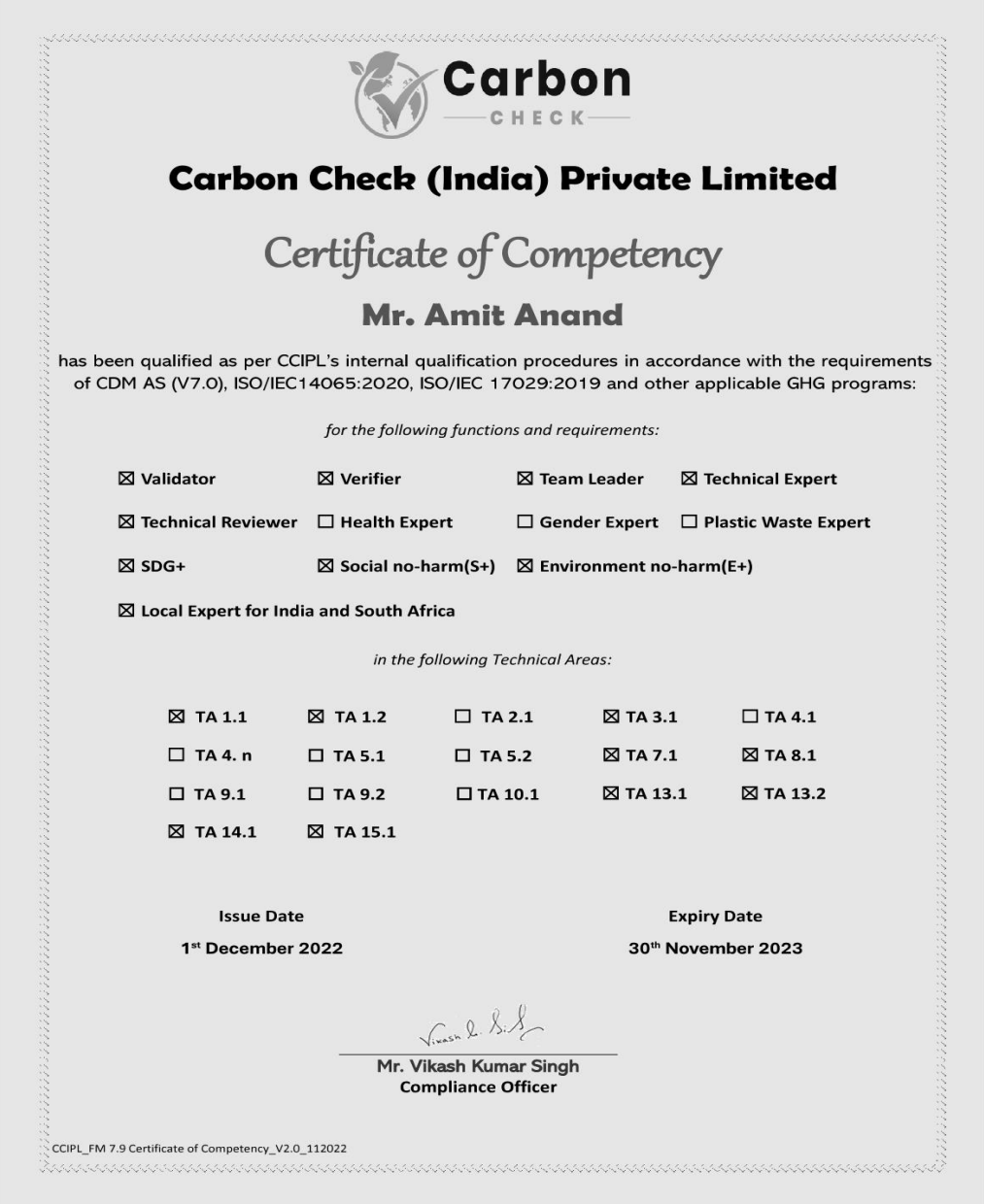
SECTION E. Internal quality control

The validation report has passed a technical review and quality review before being submitted to the project participant and UNFCCC Executive Board. The technical review was performed by a technical reviewer qualified in accordance with CCIPL's qualification scheme for CDM validation and verification.

Appendix 1. Abbreviations

Abbreviations	Full texts
BAU	Business As Usual
CA	Corrective Action / Clarification Action
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CER	Certified Emission Reduction
CL	Clarification Request
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DR	Document review
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
EI	External individual
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GACC	Global Alliance for Clean Cookstoves
GHG	Greenhouse gas(es)
GS4GG	Gold standard for global goals
I	Interview
IPCC	Intergovernmental Panel on ClimateChange
IR	Internal resource
MW	Mega Watt
PDD	Project Design Document
PP	Project Participant
OSV	On Site Visit
QC/QA	Quality control /Quality assurance
SS	Sectoral Scope
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Gold Standard Validation and Verification Body
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewer



Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Amit Anand

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+)	
☒ Local Expert for India and South Africa			

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 December 2022

Expiry Date
30th November 2023

Mr. Vikash Kumar Singh
Compliance Officer

CCIPL_FM 7.9 Certificate of Competency_V2.0_112022

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Aparna Choudhary

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+)	
☒ 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 December 2022

Expiry Date
30th November 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.0_112022

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Ms. Indumathi C

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+)	
☒ Local Expert for India and Sri Lanka			

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 December 2022

Expiry Date
30th November 2023

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.0_112022

Appendix 3. Documents reviewed or referenced

Ref no.	Reference Document
/01/	PDD, version 11, dated 25/10/2021 (initial)
/02/	PDD version 15 dated 04/01/2023 (final)
/03/	Emission reduction spread sheet corresponding to /01/
/04/	Emission reduction spread sheet corresponding to /02/
/05/	Revised generation license (License no: EÜ/10214-13/04898)
/06/	Evidence of name change from Derin Enerji Üretim San. ve Tic. A.Ş to HGG Enerji Üretim Anonim Şirketi on 23/12/2020
/07/	A Project Identification File prepared for Camlica II project on November 2009 considering final project design
/08/	Record of the employment created due to the project activity
/09/	Topographical surveys or maps of the project site
/10/	Contractual relationship signed between the VVB, Carbon Check (India) Private Ltd. and the Project Developer/ Project Representative
/11/	Site Visit Notes
/12/	Source for OM & BM values
/13/	Evidence for the technical details of the project activity
/14/	A_{PJ} calculation document

Background documents:

Ref no.	Reference Document
/B01/	1. Validation and Verification Standard for project activities version 03.0 2. Project Standard for project activities version 03.0
/B02/	Applied baseline and monitoring methodology: 1. ACM0002, version 20.0 “Consolidated baseline methodology for grid connected electricity generation from renewable sources”
/B03/	1. Gold Standard Principles and Requirements version 1.2, dated 23/10/2019 2. Gold Standard Programme of Activity Requirements version 1.2, dated 23/10/2019 3. GS Validation & Verification Body Requirements version 2.0, dated 14/01/2021

Appendix 4: Clarification requests, corrective action requests and forward action requests

I. **Table 1. CL from this validation**

CL ID	01	**Section no.**		**Date:** 24/11/2021
Description of CL				
Under section C.2.1 of the PD the start date of crediting period is mentioned as 01/01/2022, however in the registered PD for the first crediting period the end date of the crediting period is mentioned as 30/04/2021. As per paragraph 5.1.45 of GS Principles and Requirements V1.2 and paragraph 412 (V) of VVS for PA version 03 the start date of second crediting period should be immediately after the end date of previous crediting period. PP is requested to clarify the inconsistency.				
Project participant response				**Date:** 25/11/2021
In the 2nd verification, in Section B.2.3 of the MR, there was a change in the start date of the crediting period which is appropriate for GS standards: *"Provisional acceptance of plant has been completed on 02/05/2014 however, due to completion of missing works during start up phase, actual commissioning has taken place by end of 2014 and no significant generation has occurred in 2014. Therefore, crediting period has been postponed to 2015.Thus, start of crediting period has been changed from 02/05/2014 to 01/01/2015."* This was also approved by GS and the issuance process was completed. Therefore, the second crediting period of the project will start on 01/01/2022. The approved MR is attached.				
Documentation provided by project participant				
VVB assessment				**Date:** 07/12/2021
.On the basis of review of section B.2.3 of the approved MR for the monitoring period 2 dated 10/04/2020 it is clear to verification team that 1st crediting period has been postponed and the start date of crediting period changed to 01/01/2015 and thus ended on 31/12/2021. Therefore, the start date of this crediting period 01/01/2022 as mentioned in section c.2.1 of the PDD is deemed acceptable by the verification team. Hence this finding is closed.				

Table 2. CAR from this validation

CAR ID	01	**Section no.**	--	**Date:** 24/11/2021
Description of CAR				
PP is requested to submit the evidence for any ODA funding and for the project has not applied for any other certification scheme.				
Project participant response				**Date:** 25/11/2021
ODA Declaration has been submitted.				
Documentation provided by project participant				
ODA declaration				
VVB assessment				**Date:** 07/12/2021

On the basis of review of the MR and the ODA declaration dated 25/11/2021 submitted by the PP, verification team confirms that the project does not used any ODA funding and is not applied under any other certification scheme. Hence the finding is closed.

CAR ID	02	**Section no.**	--	**Date:** 24/11/2021
Description of CAR				
Under section B.7.1 of the PDD PP has mentioned Emission Reduction as a monitoring parameter. However as per the Methodology ACM0002 Version 20 it does not applies as parameter. Moreover, the Emission Reduction is a final outcome of the project. PP is requested to check the same and make the required correction.				
Project participant response				**Date:** 25/11/2021
Related parameter has been removed from the monitoring plan.				
Documentation provided by project participant				
.				
VVB assessment				**Date:** 07/12/2021
PP has removed the table of Emission reduction from section B.7.1 of the revised MR as its being a final outcome of the project and not the parameter to be monitored. Hence the finding is closed				

CAR ID	03	**Section no.**	--	**Date:** 24/11/2021
Description of CAR				
Under section B.5.2 of the PDD, PP has mentioned that the ongoing financial need is N/A, however In line with the paragraph 4.1.52 of the GS4GG Principles and Requirements ".Ongoing Financial Need shall be demonstrated at Design Certification Renewal. The project shall provide a qualitative narrative, supported by an overview of project finances, that demonstrates how the finance derived Gold Standard Certification is material to the ongoing sustainability of the Project. PP is requested to provide the required information under section B.5.2 of the PD.				
Project participant response				**Date:** 25/11/2021
Related info has been provided in Section B.5.2.				
Documentation provided by project participant				
.				
VVB assessment				**Date:** 07/12/2021
PP has mentioned the ongoing financial need in the section B.5.2 of the MR. Expected annual generation as per the generation license is 89,558MWh and need for carbon revenue continues as per the approved PD for first crediting period. Hence the finding is closed.				

CAR ID	04	**Section no.**	--	**Date:** 24/11/2021
Description of CAR				
PP is requested to provide the required information Under section E.1 of the PD				
Project participant response				**Date:** 25/11/2021
Section E.1. revised.				
Documentation provided by project participant				
VVB assessment				**Date:** 07/12/2021

PP has not received any stakeholder complaints or grievance from the local stakeholder in the beginning of this crediting period. However, comments received during first crediting period has been taken into account and responded during operational and verification period hence finding is closed.

Appendix 6: Sustainability Validation Report

1. Project type eligibility screen

The proposed project Activity "Çamlıca II HEPP" located in Kayseri Province of Turkey. The project is applied the methodology, ACM0002, version 20.0 "Consolidated baseline methodology for grid connected electricity generation from renewable sources"

The project activity involves the generation of electricity by the use of renewable source of energy i.e. the generation of electricity form the hydropower plant. The electricity generated is supplied to the national grid.

The project is eligible under GS according to clause 3.1.1 of the GS4GG Principles and Requirements document.

The project is in compliance with the host country's legal, environmental, ecological and social regulation. There is no ODA funding in the project and the project has not applied or seeking in any other certification scheme. Hence the project fulfills all the eligibility criteria and is eligible under Gold Standard.

2. Preliminary review under Gold Standard for the Global Goals

The project involves validation of Design Certification Renewal for a registered largescale project activity. A preliminary review is not required for Design Certification Renewal.

3. Sustainable Development Goals (SDG) outcomes

As per the PDD /02/, the relevant SDG targets are:

SDG	Chosen SDG target
Goal 7 - Affordable and clean energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services
Goal 8 - Decent work and economic growth	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
Goal 13 - Climate action	13.2 Integrate climate change measures into national policies, strategies and planning

Validation team confirms that the outcome for SDG 13 will be quantified as CO_2 emission reductions by applying the methodologies ACM0002, version 20.0 "Consolidated baseline methodology for grid connected electricity generation from renewable sources" The project proponent has opted SDG 13 outcome to be certified as 'Certified SDG 13 Impact Statement' allowing the generation of carbon credits (VERs).

As per the PDD, the other SDG impacts of this project activity (SDG 7 and SDG 8) will not be certified as 'Certified Impact Statements' and therefore, for these SDG impacts no specific methodologies for estimation and monitoring will be applied.

4. Safeguarding principle Assessment

According to GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out assessment as summarized below:

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/ potentially/ no)	Justification including mitigation measures	Assessment by the validation team
Principle 1. Human Rights	The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights	Yes	Turkey has ratified European Convention on Human Right on 10/03/1954. Therefore, the project is not expected to violate the rules regarding human rights.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and Sit visit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 1. Human Rights	The Project shall not discriminate with regards to participation and inclusion	Yes		
Principle 2. Gender Equality	The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women.	Yes	The project will employ women mainly in the stove assembly in the factory. Women will have full access to project resources, entitlements and benefits. Women and men will have equal access opportunities to the new stove sets. The principles of non-discrimination, equal treatment and equal pay for equal work hold.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project
Principle 2. Gender Equality	Projects shall apply the principles of nondiscrimination, equal	Yes		

	treatment, and equal pay for equal work			Participants
Principle 2. Gender Equality	3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks	Yes		Mitigation measure: N/A
Principle 2. Gender Equality	where required) Summary of opinions and recommendations of an Expert Stakeholder(s)			
Principle 3. Community Health, Safety and Working Conditions	The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	Yes	Turkey has ratified ILO convention 155 and about work safety and precautions11.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure as mentioned in the PD shall be checked during the verification.
Principle 4.1 Sites of Cultural and Historical Heritage	Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	No	No sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture were observed in the project area.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with:

				• Representatives of Project Participants Mitigation measure: N/A
Principle 4.2 Forced Eviction and Displacement	Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	No relocation needed for the project implementation.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 4.3 Land Tenure and Other Rights	a) Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? b) For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?	Yes	a) Project activity involves expropriation but no resettlement. Hence there is no land tenure situation within project area. b) There is no uncertainty. Related permits and payments for expropriation were carried out.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 4.4 Indigenous people	Are indigenous peoples present in or within the area of influence of the Project	No	There is no indigenous people affected by the project implementation.	As reported by the PP, the project involves the electricity generation by

	and/or is the Project located on land/territory claimed by indigenous peoples?			renewable sources thus project location on land/territory claimed by indigenous peoples is not relevant. This was confirmed based on the review of the PDD/02/. Mitigation measure: N/A
Principle 5. Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	The project does not engage in, contribute to or reinforce corruption of any kind.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 6.1 Labour Rights	1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions	Yes	1. project owner ensures that all employment and HSE activities will be done according to the Law of Health And Safety. 2. Turkey has ratified ILO 87 and 98 conventions.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/. PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 6.1 Labour Rights	2. Workers shall be able to establish and join labour organisations	No		

Principle 6.1 Labour Rights	3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. AND	No	3. All employees will be recruited according to the national legislations. 4. Turkey is a party of IPEC13,14 since 1992 and ratified ILO convention 138 and 182. 5. Turkey has ratified ILO convention 155 and about work safety and precautions	
Principle 6.1 Labour Rights	4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion)	No		
Principle 6.1 Labour Rights	5. The Project Developer shall ensure the use of appropriate equipment, training of	No		

	workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.			
Principle 6.2 Negative Economic Consequences	1. Does the project cause negative economic consequences during and after project implementation ?	No	The project does not cause any negative consequences after implementation. On the contrary, it will create job opportunities for locals as a positive economic impact.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/, PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 7.1 Emissions	1. Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	As a renewable energy power plant, the project contributes to “Emissions Reductions or Removals and/or Adaptation to Climate Change” by reducing CO2 emissions caused by fossil fuel-fired power plants that are displaced due to the project activity, in line with GS4GG principles with the mitigation of an expected amount of 44,145 tonnes of CO2e.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/, PDD/02/, ER sheets/04/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 7.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or	No	Project does not use any local fuel resource. It is connected to the national grid and supply 89,558 MWh additional energy to the grid. Internal consumption which indicates the usage in the project site	Appropriateness for this safeguarding principle was validated and confirmed through

	regional grid) or fuel resource (such as wood, biomass) that provides for other local users?		will be read from monthly records taken from the meters.	review of /B03/, PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 8.1 Impact on Natural Water Patterns/ Flows	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	Since the Project is run-of river type without a storage capacity, quality and the quantity of water is not affected by the project activity compared to the baseline scenario. Project use excess water from the channel and releasing flow from the channel is within the responsibility of the project owner signed a water usage agreement with DSI.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/,PDD/02/, and remote audit interviews with: • Representatives of Project Participants Mitigation measure: As provided in PDD/02/ and the same will be verified during the verification of PA.
Principle 8.2 Erosion and/or Water Body Instability	Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	Potentially	The Project does not have any serious effects on erosion or water body instability since land use is limited. There is only a possibility of erosion in the excavated and slopy areas.18 However, there are pre and post measures taken in order to prevent soil loss..	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants

				Mitigation measure: as described in the PDD/02/ and the same is confirmed by the validation team on the basis interview with the plant manager and project representatives during remote audit.
Principle 9.1 Landscape Modification and Soil	Does the Project involve the use of land and soil for production of crops or other products?	No	Land is limited within the project contruction phase and there is no negative effect on use of land and soil for production of crops. Only construction of water transfer channel caused excavation of soil which is placed on top of present landscape and the area was forested.21 The river bed existing between Camlica II regulator and HEPP has 2 km long valley-canyon type morphology. Therefore, there is no agricultural and/or potentially affected crop land depending on river irrigation due to the steep slope of the area.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/, PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 9.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	Project area is located in the 4th degree earthquake zone and therefore, the earthquake risk is quite low moreover all the design and construction work performed in accordance with relevant regulations24.25 There is no flooding risk according to the Turkey Flood Map. However, there may be potential landslide risk due to excavation for the water channel.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: the mitigation

				measured mentioned in the PDD is confirmed by the validation team on the basis of interview of the PP, Plant manager**.**
Principle 9.3 Genetic Resources	Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	The project activity is not relevant to the use of genetically modified organisms or GMOs since it is a renewable energy power plant.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/, PDD/02/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: N/A
Principle 9.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	Yes	Excavation soil, domestic wastewater and solid waste is expected to be generated. However, these are not result in adverse effects on the environment since managed as per the requirements of national legislation26. The nearest settlement is Çamlıca Village which is 1500 meters far away from the project area. Noise levels are below the limits of Turkish legislation27.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/, PDD and remote audit interviews with: • Representatives of Project Participants Mitigation measure: Waste water will be collected in a septic tank and then transported to a treatment

				plant where it will be treated to meet standards in accordance with guidelines and national regulations and Amount of water released as minimum flow Flow is monitored continuously and recorded by the gauging device. The same will be considered in the monitoring plan and will be assesses during verification.
Principle 9.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	Yes	Project does not create any adverse impact on the local environment due to the handling, storage, transport, and disposal of the hazardous waste generated during and after the construction and is comply with the requirements of the Turkish Regulation.	Appropriateness for this safeguarding principle was validated and confirmed through review of /B03/ and remote audit interviews with: • Representatives of Project Participants Mitigation measure: As provided in the PD/02/. That shall be assessed at the time of verification as well.
Principle 9.6 Pesticides & Fertiliser	Will the Project involve the application of pesticides and/or	No	The project is not relevant since it is a renewable energy project.	Not relevant as it's a renewable energy project.

s	fertilisers?			Mitigation measure: N/A
Principle 9.7 Harvesting of Forests	Will the Project involve the harvesting of forests?	No	Project does not involve any harvesting activity.	Project does not involve any harvesting activity, and this confirmed by validation team on the basis of review of PDD/02/ and interview with the PP. Mitigation measure: N/A
Principle 9.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The project is not relevant since it is a renewable energy project.	Not relevant as it's a renewable energy project. Mitigation measure: N/A
Principle 9.9 Animal husbandry	Will the Project involve animal husbandry?	No	The project does not involve animal husbandry.	Not relevant as it's a renewable energy project. Mitigation measure: N/A
Principle 9.10 High Conservation Value Areas and Critical Habitats	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	The project is not relevant since it is a renewable energy project.	Not relevant as it's a renewable energy project. Mitigation measure: N/A
Principle 9.11 Endangered Species	Are there any endangered species identified as potentially being present within the Project	No	There are no endangered species in the project area.	Appropriateness for this safeguarding principle was validated and confirmed through review of /02/

	boundary (including those that may route through the area)? AND/OR Does the Project potentially impact other areas where endangered species may be present through transboundary affects?			and site visit and interviews with: • Representatives of Project Participants Mitigation measure: N/A

In summary, CCIPL has validated and concluded that the safeguarding principles for the project has been conducted appropriately, according to GS4GG requirements, based on accurate information with all the reference sources as indicated in the PDD /02/. Therefore, in CCIPL's opinion the project has no harmful impact..

5. Data and parameters fixed ex-ante

Relevant SDG Indicator	**13**
Data/parameter - Description	Combined margin CO2 emission factor for the project electricity system in year y
Unit/Value	1. tCO_2/MWh 0.04929
Verified Source of data	ACM0002, Version 20
Assessment	The value of the parameter is calculated on the basis of formula CM = (BM x 0.75) + (OM x 0.25) as per the applied methodology/B02/ used and the values of OM and BM is sourced from Ministry of Energy and Natural Resources and the same is validated on the basis of the link provided in the PD./02/

Relevant SDG Indicator	**7 - 7.2.1 "Renewable energy share in the total final energy consumption" and** **7.2 ''By 2030, increase substantially the share of renewable energy in the global energy mix".**
Data/parameter - Description	Affordable and Clean Energy (Ensure access to affordable, reliable, sustainable and modern energy for all)
Unit/Value	MWh/89,558
Verified Source of data	Generation license /03/
Assessment	Validation team confirms that the value of clean energy generated by the project activity on the basis of review of the generation license provided by the PP./03/

Relevant SDG Indicator	8
Data/parameter - Description	Decent Work and Economic Growth (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)
Unit/Value	Numbers/11
Verified Source of data	Records from PP
Assessment	Validation team assess the number of jobs created ex ante for the project activity by reviewing the document "Personel SGK Kayıtları" provided by the PP./06/

A summary of ex ante estimated of each SDG impact is provided in section B.6.4 of the PD and validation team confirms that the values of ex ante is in compliance with the applied methodology and fulfils all the requirements of Gold Standard Principles and Requirements version 1.2, dated 23/10/2019.

6. Data and parameters to be monitored

The details of Data and parameters to be monitored is provided in section D.2.8 above and validation team confirms that the values of parameters to be monitored is in compliance with the applied methodology and fulfils all the requirements of Gold Standard Principles and Requirements version 1.2, dated 23/10/2019

Appendix 7: Assessment on project's compliance with 'gender sensitive' requirements

Step	Question	Description in the PDD	Assessment by the Validation team
1	*Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?*	As stated in Gold Standard Gender Policy document, "foundational gender sensitive certification" which is mandatory for every project requires compliance with the gender 'do no harm' safeguard, gender-gap analysis and gender sensitive stakeholder consultations. Although the project is a renewable energy project and does not have negative impacts on men and women, it complies with the criteria mentioned.	Validation team during the remote audit interviews with stakeholders and employees confirm that the description in the PDD/02/ in context of this question is justified.

		Moreover, Turkey has ratified ILO convention 100 and 111 and discrimination based on gender is illegal in Turkey. The project tries to align with the national gender strategy. So, the project does not involve and is not complicit in any form of discrimination based on gender difference.	
2	*Question 2 - Explain how the project aligns with existing country policies, strategies and best practices*	A gender-equal strategy is implemented by creating employment opportunities for both man and woman without discrimination. According to the Woman Empowerment Strategy Paper and Action Plan prepared by the Ministry of Family and Social Policies (2018), there are 21 targets classified under 5 main fields in order to enhance participation of women to the society. In this action plan regarding the years 2018 – 2023, economy and employment-oriented strategies are represented for women since the labor force activity of women is not at desired level compared to the EU countries. According to 2017 statistics tabulated in the report, labor force activity of women is declared as 33.6% and it is aimed that this percentage will be 41% in 2023. Accordingly, the project shows parallelism with the	Validation team during the remote audit interviews with stakeholders and employees confirm that the description in the PDD/02/ in context of this question is justified.

		national strategies developed for women. Moreover, all men and women can benefit from project outputs without any discrimination under the SDG 9.	
3	*Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?*	No	Not Required
4	*Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?*	No	Not Required