GLOBAL CARBON COUNCIL

Driving Climate Actions

Project Verification Report

V3.1 - 2020

CONTENTS

COVER PAGE Project Verification Report Form (PVR)	
BASIC INFORMATION	
Name of approved GCC Project Verifier / Reference No. (also provide weblink of approved GCC Certificate)	KBS Certification Services Private Limited / GCCV003/00 (http://globalcarboncouncil.com/wp-content/uploads/2021/10/gcc-verifier-cert-kbs-certification-services-private-limited.pdf)
Type of Accreditation	☐ Individual Track[1] ☒ CDM Accreditation Name of the entity that provided the accreditation: UNFCCC Date of validity: 29/11/2019 to 28/11/2024 Weblink of the active accreditation certificate and approval: https://cdm.unfccc.int/DOE/list/DOE.html?entityCode=E-0051 ☐ ISO 14065 Accreditation
Approved GCC Scopes and GHG Sectoral scopes for Project Verification	GHG-SS# 1 - Energy (Renewable/non-renewable sources) E+/Environment Safeguard Standard S+/Social Sustainability Standard SDG+/United Nations Sustainable Development Goals
Validity of GCC approval of Verifier	04/01/2023 to 27/11/2024
Title, completion date, and Version number of the PSF to which this report applies	Title: Coromandel Renewable Energy Project Completion date: 12-12-2023 Version number: 3.1
Title of the project activity	Coromandel Renewable Energy Project
Project submission reference no. (as provided by GCC Program during GSC)	S00891
Eligible GCC Project Type[2] as per the Project Standard (Tick applicable project type)	☒ **Type A:** ☐ Type A1 ☐ Type A2 ☒ Type A3 ☐ **Type B – De-registered CDM Projects:**

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

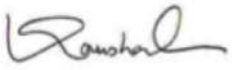
[2] Project Types defined in Project Standard and Program Definitions on GCC website.

<table>
<tr><td></td><td>☐ Type B1
☐ Type[3] B2</td></tr>
<tr><td>Date of completion of Local stakeholder consultation</td><td>Date of completion: 10/12/2022</td></tr>
<tr><td>Date of completion and period of Global stakeholder consultation. Have the GSC comments been verified. Provide web-link.</td><td>Date of completion: 06/03/2023
Period of Global stakeholder consultation: 20/02/2023 to 06/03/2023
https://projects.globalcarboncouncil.com/project/1460
No comments received during GSC</td></tr>
<tr><td>Name of Entity requesting verification service
(can be Project Owners themselves or any Entity having authorization of Project Owners)</td><td>Usina de Energia Fotovoltaica de Coromandel S.A.
Mercury Renew Participações S.A.
Elgesa Holdings e Participações S.A.
Sunrise Energy Holding Ltda.</td></tr>
<tr><td>Contact details of the representative of the Entity, requesting verification service
(Focal Point assigned for all communications)</td><td>Daniel Yoshio Shinohara
Director - Usina de Energia Fotovoltaica de Coromandel S.A.
dshinohara@perfin.com.br</td></tr>
<tr><td>Country where project is located</td><td>Brazil</td></tr>
<tr><td>GPS coordinates of the Project site(s)</td><td>
<table>
<tr><td rowspan="2">Solar Power Plant</td><td colspan="2">Degrees, minutes, seconds</td><td colspan="2">Decimal degrees</td></tr>
<tr><td>Latitude</td><td>Longitude</td><td>Latitude</td><td>Longitude</td></tr>
<tr><td>Coromandel 1</td><td>18° 25' 10.87" S</td><td>47° 3' 49" W</td><td>18.4196</td><td>47.0636</td></tr>
<tr><td>Coromandel 2</td><td>18° 24' 59.87" S</td><td>47° 3' 23.31" W</td><td>18.4166</td><td>47.0564</td></tr>
</table>
</td></tr>
<tr><td>Applied methodologies
(approved methodologies of GCC or CDM can be used)</td><td>ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0[4]</td></tr>
<tr><td>GHG Sectoral scopes linked to the applied methodologies</td><td>GHG-SS #1. Energy (renewable/non-renewable sources)</td></tr>
<tr><td>Project Verification Criteria:
Mandatory requirements to be assessed</td><td>☒ ISO 14064-2, ISO 14064-3
☒ GCC Rules and Requirements
☒ Applicable Approved Methodology
☒ Applicable Legal requirements /rules of host country</td></tr>
</table>

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

[4] https://cdm.unfccc.int/methodologies/DB/HF3LP6O41YY0JIP1DK6ZRJO9RSCX3S

	☒ 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 [KBS Certification Services Ltd.], certifies the following with respect to the GCC Project Activity [Coromandel Renewable Energy Project]. ☒ The Project Owner has correctly described the Project Activity in the Project Submission Form (version 3.1, dated 12/12/2023) including the applicability of the approved methodology [ACM0002, version 21.0] and meets the methodology applicability conditions and is expected to achieve the forecasted real and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reductions estimates correctly and conservatively. ☒ The Project Activity is likely to generate GHG emission reductions amounting to the estimated [49,538] tCO_2e/annum, as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3. ☒ The Project Activity is not likely to cause any net-harm to the environment and/or society and complies with the Environmental and Social Safeguards Standard, and is likely to achieve the following labels: ☒ Environmental No-net-harm Label (**E⁺**) ☒ Social No-net-harm Label (**S⁺**) ☒ The Project Activity is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), complies with the

	Project Sustainability Standard, and contributes to achieving a total of 8 SDGs, with the following[5] 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 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., v1.1 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project. ☒ The Project Activity complies with all the applicable GCC rules[6] and therefore recommends GCC Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	GCC.23.VAL.029 Version: 1.0 Date of approval: 21-12-2023
Name of the authorised personnel of GCC Project Verifier and his/her signature with date	 Mr. Kaushal Goyal Managing Director Date: 21-12-2023

[5] 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.

[6] "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/

1. PROJECT VERIFICATION REPORT

Section A. Executive summary

KBS Certification Services Limited has been commissioned to perform Project Verification of GCC Project Activity "Coromandel Renewable Energy Project" (GCC ref. no. S00891) and implemented safeguards aimed to achieve environmental and social impacts without causing any net harm. During this verification exercise, contribution of the project activity towards the United Nations Sustainable Development Goals would also be verified along with Environmental (E+) and Social safeguards (S+).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented as per the PSF /1/ and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- PSF and other supporting documents are complete;
- The actual monitoring systems & procedures and PSF conforms with the requirements of the approved monitoring methodology /5/, Environmental No-net harm (E+), Social No-net harm (S+) contributions, CORSIA (C+) requirements.

Brief Summary of the Project Activity
The purpose of the implemented project activity is to generate clean form of electricity through renewable solar energy source. The project "Coromandel Renewable Energy Project" is a complex project composed of two solar photovoltaic power plants, Coromandel 1 and Coromandel 2 solar photovoltaic power plants located at Coromandel municipality, in Minas Gerais state, Brazil with a total generation capacity of 60 MW consisting monocrystalline PV modules.
All plants supply clean electricity to the Brazilian National Interconnected System (SIN). The project displaces power generation using fossil fuels and hence leads to a reduction in greenhouse gas emissions.

The project activity is commissioned in phase-wise manner, with commissioning and commercial operation start dates as follows:

Solar photovoltaic power plant	Capacity (MW) /33/	Date of commissioning (test operation) /34/	Commercial operation start date /35/
Coromandel 1	30	09/12/2022 (UG1 to UG9)	28/12/2022 (UG1 to UG9)
Coromandel 2	30	08/12/2022 (UG1 to UG9)	28/12/2022 (UG1 to UG9)

The project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the project power plant is connected to.

The estimated annual average power generation, by the project activity, for the next 10 years is 144,433 MWh, which is exported to the national grid of Brazil. It will result into annual average ACCs of up to 49,538 tCO_2e and a total of 495,377 tCO_2e ACCs over 10-year period. The generated ACCs will be utilized to offset GHG emissions.

The project activity is an environmentally safe and sound technology, and no GHG emissions are associated with the electricity generation from the plant. The project also contributes to the sustainable development by producing renewable electricity from low environmental impact wind power plants, creating new jobs, contributing to the security of renewable electricity supply throughout the year and, hence, reducing the country's dependence on the fossil fuel during the dry season and stimulating similar initiatives inside the Brazilian energy sector.

Scope:
The scope of the services provided by KBS Certification Services Limited, for the project is to perform

Project Verification of concerned GCC Project Activity and implemented safeguards aimed to achieve environmental and social impacts without causing any net harm. The contribution of the project activity towards the United Nations Sustainable Development Goals and CORSIA requirements would also be verified.

The scope of verification is to assess the claims and assumptions made in the Project Submission Form (PSF) /1/ against the GCC criteria, including but not limited to, GCC Program Framework and Program Manual, GCC Project Standard, GCC Verification Standard /13/, applied CDM methodology and referred tools /5/ and other relevant rules and requirements established under Program process.

Verification Process and Methodology:
The verification process was undertaken by a competent verification team and involved the following:
(a) Document review, involving:

- A review of documents and evidence submitted by the project owner in context of the reference rules and guidelines issued by GCC;
- Cross checks between the information provided in the PSF /1/ and information from the publicly available sources, GCC Verifier's sectoral expertise; and, independent background investigations;

(b) Follow-up actions (on-site inspection as well as remote interviews), including:

- Interviews with stakeholders/ representative of the project owners in the project host country (i.e., Brazil);
- Cross checks between information provided by interviewed personnel to ensure that no relevant information has been omitted;

(c) Reference to available information related to projects or technologies similar to the proposed GCC Project Activity under verification;
(d) Review, based on the selected methodologies and applied methodological tools, on the appropriateness of formulae and accuracy of calculations;
(e) Review of the claims regarding the additional certification labels (E+, S+, SDG+ and CORSIA market eligibility);
(f) Reporting audit findings with respect to clarifications, non-conformities and the closure of the findings, as appropriate and;
(g) Preparation of a draft verification opinion based on the auditing findings and conclusions;
(h) Technical review of the draft verification opinion along with other documents as appropriate by an independent competent technical review team;
(i) Finalization of the Project Verification Opinion (this report).

Assessment Team
The team for the assessment of the project activity has been selected based on host country knowledge, technical expertise, understanding of ISO 14064-2, ISO 14064-3 /12/, GCC guidelines, rules and regulations related to project activity /5/ /13/, and auditing skills. KBS confirms that assessment team is completely independent of all other aspect of project or its components.

Internal Quality Control
Following the completion of the assessment process and a recommendation by the assessment team, the verification opinion prepared by Team Leader is independently reviewed by internal Technical Reviewer (also referred to as 'TR'). TR reviews if all the KBS procedures have been followed and all conclusions are justified in accordance with applicable standards, procedures, guidance and decisions. The TR either is qualified for the technical area within the sectoral scope(s) applicable to project activity or is supported by qualified independent technical expert at this stage.

The Technical Reviewer will either accept or reject the recommendation made by the assessment team. The opinion recommended by Technical Reviewer will be confirmed by Manager Technical & Certification and finally authorized by the Managing Director on behalf of KBS as final verification opinion. The Technical Reviewer and Manager T&C may be same person.

Conclusion
The review of the PSF /1/, supporting documentation, on-site inspection and interviews have provided KBS

with sufficient evidence to determine the fulfillment of stated criteria. KBS is of the opinion that the project activity "Coromandel Renewable Energy Project" as described in the final PSF /1/ meets all relevant requirements of GCC, applied E+, S+, SDG+ & C+ Label/criteria requirements, and host country (legal requirements for producing power) criteria and has correctly applied the methodology ACM0002 version 21.0 /5/. Therefore, the project is being recommended to GCC Steering Committee for request for registration.

Section B. Project Verification team, technical reviewer and approver

B.1. Project Verification team

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of GCC Project Verifier or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Project Verification findings
1.	Team Leader, Technical Expert (TA. 1.2), Local Expert	EI	Leiroz	Andrea	Central Office	✓	✓	✓	✓
2.	Financial Expert	IR	Goyal	Satya	Central Office	✓	-	-	✓

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	Central office
2.	Manager (Technical & Certification)	IR	Francis	Margaret	Central office
3.	Authorizer	IR	Goyal	Kaushal	Central office

Section C. Means of Project Verification

C.1. Desk/document review

A desk review is undertaken, involving but not limited to,

- A review of the data and information presented to verify their completeness, and to assess the nature, scale and complexity of the verification activity.
- A review of the monitoring plan and monitoring methodology, paying attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;

- An evaluation of data management and the quality assurance & quality control system in the context of their influence on the generation and reporting of emission reductions, to achieve the desired confidence in the project owner's GHG information and claims regarding the additional certification labels (E+, S+, SDG+ and CORSIA market eligibility).

The list of documents reviewed is included in the section 'Appendix 3' of this report.

C.2. On-site inspection

Duration of on-site inspection: 31/05/2023				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	The project verification team conducted interviews with the project owner, plant in-charge, other stakeholders to confirm the information and to resolve issues identified in the document review. An assessment was conducted as a part of verification activity and involved: 1) An assessment of the implementation and operation of the project activity as per the PSF and GCC requirements; 2) To verify that the project design, as documented is sound and reasonable, and meets the identified criteria GCC Standard Requirements and associated guidance; 3) To assess conformance with the certification criteria as laid out in the GCC Standards; 4) To evaluate the conformance with the certification scope, including the GHG project and baseline scenarios, additionality; GHG sources and the physical infrastructure, activities, technologies and processes of the GHG project to the requirements of the GCC; 5) To evaluate the calculation of GHG emissions, including the correctness and transparency of formulae and factors used; assumptions related to estimating GHG emission reductions; and uncertainties; and 6) To determine whether the project could reasonably be expected to achieve the estimated GHG reduction/removals; 7) A review of information flows for generating, aggregating and reporting of the ex-ante parameters and ex- post monitoring parameters; 8) Interviews with relevant personnel to confirm that the operational and data collection procedures can be implemented in accordance with the Monitoring Plan; 9) A cross-check between information provided in the submitted documents and data from other sources; 10) A review of calculations and	Coromandel municipality in Minas Gerais state	31/05/2023	Andrea Leiroz (Verifier & Technical Expert)

	assumptions made in determining the GHG data and estimated ERs; and 11) An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters; 12) Verification of Stakeholder Consultation by interviewing the stakeholders; 13) Additional labels (E+, S+, SDGs and C+); 14) Confirmation of legal ownership of the project activity and avoidance on double counting.			

C.3. Interviews

No.	Interview			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Ricardi Junior	Valmor	Energy planning – Comerc Renew	31/05/2023	Project Boundary, Eligibility criteria, Host country requirements, Emission reduction calculations, Operational lifetime of the project activity, Monitoring plan (feasibility of monitoring arrangements described in PSF), QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures Local Stakeholder Consultation process, Implementation plan, Additionality, Investment inputs, benchmark and Financial Analysis	Andrea Leiroz
2.	Braggion	Ligia	Technical analyst – Future Carbon	31/05/2023		Andrea Leiroz
3.	Almeida	Letícia	Technical analyst – Future Carbon	31/05/2023		Andrea Leiroz

					E+, S+, SDG+, CORSIA+ Contribution of the project towards sustainable development, Environmental impacts.	
4.	Garcez	Tiago	O&M supervisor – Comerc Renew	31/05/2023	Monitoring plan (feasibility of monitoring arrangements described in PSF), QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures	Andrea Leiroz
5.	Pereira	Luis Carlos	Municipal secretary of Coromandel	31/05/2023	Interviewed stakeholders	Andrea Leiroz
6.	da Silva	Lazaro	Local Villager	31/05/2023		Andrea Leiroz

C.4. Sampling approach

No Sampling Approach is used during project verification. All the data provided by the project owner has been duly verified.

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	-	CAR 01	-
General description of project activity	A_1, A_2, B_1, B_2	CL 01	CAR 01	-
Application and selection of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	CAR 02	-
- Application of methodologies and standardized baselines	A_1, A_2, B_1, B_2	-	CAR 02	-
- Deviation from methodology and/or methodological tool	A_1, A_2, B_1, B_2	-	-	-
- 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	-	CAR 02	-
- Demonstration of additionality including the Legal Requirements test	A_1, A_2, B_1, B_2	CL 02	CAR 02	-

- Estimation of emission reductions or net anthropogenic removals	A_1, A_2, B_1, B_2	CL 03	CAR 02	-
- Monitoring plan	A_1, A_2, B_1, B_2	-	CAR 02	-
Start date, crediting period and duration	A_1, A_2, B_1, B_2	-	CAR 03	-
Environmental impacts	A_1, A_2, B_1, B_2	CL 04	-	-
Local stakeholder consultation	A_1, A_2, B_1	-	CAR 05	-
Approval & Authorization- Host Country Clearance	A_1, A_2, B_1, B_2	-	CAR 06	FAR 01
Project Owner- Identification and communication	A_1, A_2, B_1, B_2	-	-	-
Global stakeholder consultation	A_1, A_2, B_1	-	-	-
Others (please specify)	A_1, A_2, B_1, B_2	-	CAR 07	-
VOLUNTARY CERTIFICATION LABELS				
Environmental Safeguards (E^+)	A_1, A_2, B_1	-	CAR 04	-
Social Safeguards (S^+)	A_1, A_2, B_1	-	CAR 04	-
Sustainable development Goals (SDG^+)	A_1, A_2, B_1	CL 05	-	-
Authorization on Double Counting from Host Country (only for CORSIA)	A_1, A_2, B_1	-	-	FAR 01
CORSIA Eligibility (C^+)		-	-	FAR 01
Total		**05**	**07**	**01**

Section D. Project Verification findings

D.1. Identification and eligibility of project type

Means of Project Verification	The project activity has identified itself as A3 category which was found acceptable since: a. The project has not been registered under any GHG program or non GHG Program as verified through CDM, VCS, GS, ACR and GCC project data base /51/ /52/ /53/ /54/ /55/; b. Initial submission of project to the GCC Program was on 22/11/2022 which is prior to the start of its commercial operation on 28/12/2022 /35/; c. Initial submission of the project was received on 22/11/2022 after 05/07/2022 and; d. The start date of crediting period will be on 01/07/2024 which is after the registration with the GCC Program and qualifies the project in to type A3. This has been verified based on the GCC's released clarification no. 5, version 1.0 /24/ of the requirements and found appropriate. Further, following points are verified by the assessment team; a. Project is not required by a legal mandate and it does not implement a legally enforced mandate. b. The project complies with national requirements: The National Electric System Operator (ONS from the Portuguese Operador Nacional do Sistema Elétrico) /43//44/; The Electricity Regulatory Agency ("ANEEL" from the Portuguese Agência Nacional de Energia Elétrica) /46/ /33/; The Mines and Energy Ministry ("MME" from the Portuguese Ministério de Minas e Energia) /47/; The Chamber of Electrical Energy Commercialization ("CCEE" from the Portuguese Câmara de Comercialização de Energia Elétrica) /45/. c. These are the main legislation that governs the electricity sector in Brazil. However, there is no specific legislation governing renewable energy in Brazil. As renewable energy is considered as a part of the electricity sector, it is governed under the provisions of ONS and ANEEL requirements, which provides a framework for the generation, transmission, distribution, trading and use of electricity. d. Project complies with all the applicable host country legal requirements and it ensures compliance with legal requirements as it has acquired power operation license issued by the regulatory Agency (ANEEL) /33/.

	The project also delivers real, measurable and additional emission reduction /2/ of 49,538 tCO_2e annually (average value over the crediting period) as compared to the baseline scenario.
Findings	CAR 01 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	The project activity was found eligible as per the requirements under section 4 and has been confirmed to be type A3 project in line with paragraph 11 (a) of the GCC Project Standard version 3.1 /15/ and Clarification no. 5 /24/, which was verified from the documents issued by ANEEL.

D.2. General description of project activity

Means of Project Verification

The project activity is a complex project composed of two solar photovoltaic power plants, Coromandel 1 and Coromandel 2 solar photovoltaic power plants with a total generation capacity of 60 MW /33/.

The project activity is located at Coromandel municipality, in Minas Gerais state, Brazil. The location was checked with the help of Google Earth software (kmz file) /42/, ANEEL's dispatches /33/ and through the ANEEL/SIGEL website /41/. The geographical coordinates of the physical site of the proposed project activity are as follows:

Solar Power Plant	Degrees, minutes, seconds		Decimal degrees	
	Latitude	Longitude	Latitude	Longitude
Coromandel 1	18° 25' 10.87" S	47° 3' 49" W	18.4196	47.0636
Coromandel 2	18° 24' 59.87" S	47° 3' 23.31" W	18.4166	47.0564

Latitude and Longitude of the physical site of the project activity has been included appropriately in the PSF /1/ which were found consistent with the documents checked.

The project involves the installation of SPV modules, divided in two areas:

Coromandel photovoltaic power plants	Coromandel 1 photovoltaic power plant	Coromandel 2 photovoltaic power plant
Total installed capacity (MW_{AC})	30	30
Solar photovoltaic module		
Type	Monocrystalline	Monocrystalline
Model	LR5-72HBD-540M	LR5-72HBD-540M
Manufacturer	Longi Solar	Longi Solar
Power STC Pn (W)	540 W	540 W
Quantity	154,512	
Inverter		
Model	SG3125-HV-30	SG3125-HV-30
Manufacturer	Sungrow	Sungrow
Rated capacity	3125 kW	3125 kW
Quantity	18	

The SPV modules, trackers, inverters, transformers and the control room were verified during the on-site visit /90/ and can be verified from photographs of the site and equipment.

The annual electricity generation is expected to be 144,443 MWh, corresponding to

a plant load factor of 28.6% for Coromandel 1 and 28.6% for Coromandel 2 sourced from the energy production report /26/. Coromandel 1 and Coromandel 2 SPV power plants are connected to Coromandel 3 substation which is connected to the SIN.

Being a renewable electricity project, the project activity will generate Greenhouse gas (GHG) emission reductions by avoiding the CO_2 emissions from the electricity generation by fossil fuel power plants.

During assessment, the project verification team observed that the project installation is complete, and the project installation was carried out in accordance with ANEEL dispatches /33/ /34/ /35/ as follows:

Solar photovoltaic power plant	Capacity (MW) /33/	Date of commissioning (test operation) /34/	Commercial operation start date /35/
Coromandel 1	30	09/12/2022 (UG1 to UG9)	28/12/2022 (UG1 to UG9)
Coromandel 2	30	08/12/2022 (UG1 to UG9)	28/12/2022 (UG1 to UG9)

And thus, it confirms that Usina de Energia Fotovoltaica de Coromandel S.A., Mercury Renew Participações S.A., Elgesa Holdings e Participações S.A. and Sunrise Energy Holding Ltda. had commissioned 60 MW solar power plant confirming project ownership in the name of Project Owner /33/ /34/ /35/. The said document which is checked by the project verification team provides earliest date of commercial operation as 28/12/2022 which is the Project Start date as per GCC definition considered in the PSF /1/ and is accepted and confirms that the project category is A3.

The operational lifetime of the project activity is 30 years, according to manufacturer's specification /71/ and industrial standards /50/.

The Project Owners have fixed the crediting period of 10 years (01/07/2024 to 30/06/2034 both days included) which is in accordance with the GCC program manual /14/ and will generate an estimated 49,538 tCO_2e emission reductions annual average.

The project activity is described as Type A3 (as justified in the above section D.1), applying CDM methodology ACM0002 version 21.0 /5/, and falls into the large-scale category (as per the applied CDM methodology).

No sampling approach was applied, as it was not required by the applied methodology, regarding verification of project description.

In addition to generating emission reductions the solar power plants also qualifies for other voluntary certification labels.

Voluntary Labels	Applied by the project	Score/Label
Achieving the United Nations Sustainable Developmental Goals (SDG+)	Yes	8 out of total 17 SDG; Diamond
Environmental No-net harm (E+)	Yes	3
Social No-Net harms (S+)	Yes	4
CORSIA (C+)	Yes	All ACCs Generated during the crediting

	<table><tr><td></td><td></td><td>period (estimated to be 49,538 tCO_2e per annum on an average)</td></tr></table> In the baseline scenario the main source of emission was found to be CO_2 as electricity was generated mainly through fossil-fuel based power plants whereas in project scenario the electricity is generated by the solar power plant thereby reducing the CO_2 emissions. Thus, non-application of GWP in this project activity was found to be acceptable as the project boundary does not include any of the GHG emissions in the project scenario as per the applied methodology /5/. The description in the PSF /1/ includes sufficient details and provides clarity about the project activity. The project activity is not a bundled project and is in line with definitions of Clarification number #1 of GCC /22/. The project verification team also checked the GCC website and other public domain to determine if the project was part of any other GHG Program prior to commencement of this verification. It was confirmed that the project owners have not submitted this project under any other GHG program apart from GCC.
Findings	CL 01 & CAR 01 were raised and resolved. Please refer appendix 4 for more information.
Conclusion	The project verification was based on review of the supportive evidence submitted by the project owner. Hence, in line with the requirements of paragraph 36 of the GCC Project Standard version 3.1 /15/, project verification team confirms that project description as contained in the final PSF /1/ was found accurate and contains complete details of the GHG emission-reduction Activity, including schematics, specifications and a description of how the project reduces emission reductions by generating renewable energy.

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

D.3.1 Application of methodology and standardized baselines

Means of Project Verification	Project owner has applied CDM methodology – ACM0002, version 21.0 /5/ and no standardized baseline is used. Applicability of the methodology as per paragraph 04 to 10 is verified as follows: <table><tr><th>Applicability criteria</th><th>Project Activity status</th><th>Verification by assessment team</th></tr><tr><td>This methodology is applicable to grid-connected renewable energy power generation project activities that:</td><td>The project activity involves a new installation of solar power generation plant. Hence the methodology /5/ is applicable to the project activity.</td><td>During the on-site interviews and through the review of environmental installation license /27/ and ANEEL resolution /33/, the assessment team confirms that this is a greenfield solar power plant and hence this criterion is applicable.</td></tr></table>

	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).		
	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) existing solar photovoltaic 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).	The project activity does NOT involve the integration of a BESS. Hence the condition does not apply.	During the on-site interviews and through the review of environmental installation license /27/ and ANEEL resolution /33/, the assessment team confirms that this is a greenfield solar power plant and hence this criterion is not applicable.
	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,	The project activity is a solar power generation plant and hence meets the applicability condition.	During the on-site interviews and through the review of environmental installation license /27/ and ANEEL resolution /33/, the assessment team confirms that this is a greenfield solar power plant and hence this criterion is not applicable.

	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 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 exigencies2 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 changing 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), month(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 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	The project activity is NOT a hydro power project. Hence the condition does not apply.	During the on-site interviews and through the review of environmental installation license /27/ and ANEEL resolution /33/, the assessment team confirms that this is a greenfield solar power plant and hence this criterion is not applicable.

	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.		
	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,	The project activity is NOT a hydro power project. Hence the condition does not apply.	During the on-site interviews and through the review of environmental installation license /27/ and ANEEL resolution /33/, the assessment team confirms that this is a greenfield solar power plant and hence this criterion is not applicable.

	this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the 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 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.	The project activity is NOT a fossil fuel switch project. Hence the condition does not apply.	Being a solar power project, it does not involve any switching from fossil fuel to renewable energy sources at the project site, which was verified by assessment team through the environmental installation license /27/. The project is not a biomass plant, which was verified by assessment team through the environmental installation license /27/ and ANEEL resolution /33/ and hence this criterion is not applicable.
	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 a greenfield project installation. Hence the condition does not apply.	During the on-site interviews and through the review of environmental installation license /27/, assessment team verified that this is a greenfield solar power plant and hence this criterion is not applicable.
	Applicability as per TOOL01: Paragraph 9 states "The use of the "Tool for the demonstration and assessment of additionality" is not mandatory for project participants when	No new methodology is proposed by PO. Refer to section B.5 of PSF /1/ for details where additionality of the project activity is demonstrated using TOOL01, version 7.0.0 /6/.	Project owner has demonstrated additionality of the project activity as per TOOL01 /6/ in section B.5 of PSF /1/ which is checked and confirmed and hence acceptable.

	proposing new methodologies. Project participants may propose alternative methods to demonstrate additionality for consideration by the Executive Board. They may also submit revisions to approved methodologies using the additionality tool.	This tool is referred by the approved CDM methodology ACM0002 (version 21.0) which is the applied methodology.	
	Applicability as per TOOL01: Paragraph 10 states "Once the additionally tool is included in an approved methodology, its application by project participants using this methodology is mandatory"	Refer to section B.5 of PSF for details where additionality of the project activity is demonstrated using TOOL01 version 7.0.0 /6/. This tool is referred by the approved CDM methodology ACM0002 (version 21.0) which is the applied methodology.	Project owner has demonstrated additionality of the project activity as per TOOL01 /6/ in section B.5 of PSF /1/ which is checked and confirmed and hence acceptable.
	Applicability as per TOOL05: Paragraph 5 states "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	Not applicable since the project activity supplies electricity to the grid.	Project owner has applied TOOL05, version 03.0 /7/ in order to monitor the quantity of electricity supplied to the local grid which is checked and confirmed and hence acceptable.

	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".		
	Applicability as per TOOL05 (Paragraph 6): This tool can be referred to in methodologies to provide procedures to 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 generated: (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.	The project activity supplies electricity to the grid, hence scenario I is applied.	Project owner has applied TOOL05, version 03.0 /7/ in order to monitor the quantity of electricity supplied to the local grid which is checked and confirmed and hence acceptable.
	Applicability as per TOOL07 (Paragraph 3): "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	The project activity is a greenfield solar power generation plant and hence, according to the applied methodology /5/, the baseline scenario is electricity delivered to the grid by the project activity would have otherwise been generated by the	Project owner has applied TOOL07, version 07.0 /8/ and has calculated Combined Margin (CM) calculations in line with the same as the identified baseline is grid-connected power plants and the addition of new generation sources

	supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects)."	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.	which is checked and confirmed hence acceptable.
	Applicability as per TOOL07 (Paragraph 4): 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, two sub-options under the step 2 of the tool are available to the project participants, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	Refer to section B.4 of PSF/1/. Off grid power plants are not included in the calculation hence the condition doesn't apply.	In accordance with TOOL07 /8/, project owner has chosen only grid connected power plants for calculation of emission factor. Baseline emissions include only CO2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The baseline emissions are calculated by multiplying the baseline emission factor which is grid emission factor ($EF_{grid,CM,y}$) and the electricity exported to the Brazilian Grid. The grid emission factor ($EF_{grid,CM,y}$) is estimated as a combined margin (CM), which is derived from operating margin (OM) and build margin (BM) factors calculated based on the data published by the Brazilian DNA /28/ (which is the latest publicly available data). The combined margin for the project is in line with steps of tool to calculate the emission factor for an electricity system (version 07.0) /8/. Both the value of OM and BM are selected under ex-post approach.

			So, in accordance with the tool to calculate the emission factor for an electricity system, version 07.0, weight factors of w_{OM} = 0.75 and w_{BM} = 0.25 has been used by the PP and the resultant grid emission factor ($EF_{grid,CM,y}$) has been appropriately calculated as 0.3118 tCO_2/MWh. The assessment team is convinced of the result of the emission factor calculation and confirms that the calculation is done in a transparent manner.
	Applicability as per TOOL24 (Paragraph 3): "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."	Refer to section B.5 of PSF for details where common practice of the project activity is demonstrated using TOOL24 version 03.1 /9/.	Project owner has demonstrated additionality of the project activity as per TOOL01 /6/ in section B.5 of PSF /1/ which is checked and confirmed and hence acceptable. TOOL24 is included by TOOL01. Thus, the application of this tool was found acceptable and the applicability criterion is met.
	Applicability as per TOOL27 (Paragraph 2): "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	Refer to section B.5 of PSF for details where investment analysis of the project activity is demonstrated using TOOL27 version 12.0 /10/.	Project owner has demonstrated additionality of the project activity as per TOOL27 /10/ in section B.5 of PSF /1/ which is checked and confirmed and hence acceptable. TOOL27 is included by TOOL01. Thus, the application of this tool was found acceptable and the applicability criterion is met.

	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."		
Findings	CAR 02 was raised and resolved. Please refer appendix 4 for more information.		
Conclusion	The project verification team confirms that: a) It has critically assessed each applicability condition listed in the selected methodology and the relevant information contained in the PSF /1/ against these criteria. The selected CDM methodology /5/ (and tools /6/-/11/) for the project activity is applicable. b) Applied version of methodology (ACM0002, version 21.0) /5/ is the latest valid version at the time of submission of the proposed GCC project activity for registration.		

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

Means of Project Verification	Since the applicability of methodology was found to be fulfilled, further clarification to the methodology were not required.
Findings	No findings raised.
Conclusion	The project verification team confirms that it has critically assessed each applicability condition listed in the selected methodology and tool and the relevant information contained in the PSF against these criteria.

D.3.3 Project boundary, sources and GHGs

Means of Project Verification	As per the applied methodology ACM0002 version 21.0 /5/, the project boundary is 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 project power plant is connected to. The components of the project boundary mentioned in the PSF were found to be in compliance with paragraph 22 of the applied methodology /5/. The project verification team conducted desk review, onsite inspection of the project to confirm the appropriateness of the project boundary identified. The verification team confirmed that all GHG sources required by the methodology have been included within the project boundary. It was assessed that no emission sources related to project activity will cause any deviation from the applicability of the methodology /5/ or accuracy of the emission reductions. The project boundary is clearly depicted with the help of a line diagram in section B.3 of the PSF and duly verified by the verification team during on-site inspection. The verification team confirms that the PSF /1/ has included all the sources of emission within project boundary and there are no sources of GHG emission left out which will contribute more than 1% of expected annual emission reduction by the project activity, which are not addressed by the applied methodology /5/.
Findings	No findings raised.

Conclusion	The project verification team was able to assess that complete information regarding the project boundary has been provided in PSF /1/ and could be assured from the line diagram. Moreover, the verification team confirms that all identified boundary, selected emissions sources and justified for the project activity. Hence, in line with the paragraph 44 of Project standard version 3.1 /15/, project verification team confirms that identified boundary and selected emissions sources are justified for the project activity.

D.3.4 Baseline scenario

Means of Project Verification	As established above in section D.3.1, the project activity is a greenfield project activity. Hence, as per paragraph 24 of the applied methodology ACM0002, version 21.0 /5/, the baseline scenario is "*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, as reflected in the combined margin (CM) calculations described in "TOOL07: Tool to calculate the emission factor for an electricity system*". Therefore, in accordance with above, the baseline for the project activity is continuation of the pre-project scenario wherein the equivalent amount of electricity as generated by the project activity shall be generated at the thermal dominated grid connected power plants resulting in CO_2 emissions. The same is line with all national policies and there is no policies or regulations which mandates the project participant to implement the project activity. The project verification team confirmed on its knowledge of the sector that relevant national and/or sectoral policies, regulations and circumstances have been taken into account in the identification of the baseline scenario for the project, power sector expansion plans and such as economic situation in the project sector /44/ /45/ /46/ /48/ /49/. As per the applied methodology, the baseline emissions are calculated as follows: $BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$ Where, BE_y = Baseline emissions in year y (tCO_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 GCC 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) /8/. Hence, for baseline emissions, Project Owners have included CO_2 emissions from electricity generation in power plants that are displaced due to the project activity. These are produced by the renewable generating unit (in MWh) multiplied by an emission coefficient (measured in tCO_2e/MWh) calculated in a transparent and conservative manner as: Combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in "Tool to calculate the emission factor for an electricity system" (Version 07.0) /8/, it is the latest version of the tool that is used to calculate emission factor. The Combined Margin emission factor is will be determined ex-post with a calculated value as 0.3118 tCO_2/MWh. The calculations, source of data is checked by the project verification team and found it to be correct. Verification team confirmed that the calculation of the grid emission factor is as per paragraphs 8 (a) and (c) Clarification 03 /23/.
Findings	CAR 02 was raised and resolved. Please refer appendix 4 for more information.

Conclusion	Hence, in line with paragraph 55 and 57 of the Project standard Version 3.1 /15/, project verification team confirms the following: • All assumptions and data used by the project participants are listed in the PSF /1/, including their references and sources. • All documentation used by project participants as the basis for assumptions and source of data for establishing the baseline scenario is correctly quoted and interpreted in the PSF /1/; • All assumptions and data used in the PSF are justified appropriately and considered reasonable in the context of the proposed project activity. • All relevant policies and circumstances have been identified and correctly considered in the PSF, in accordance with the guidance by the GCC Operations Team; • The baseline methodology /5/ and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. The verification team also concluded that the identified baseline scenario reasonably represents what would occur in the absence of the project activity and leads to a conservative estimation of GHG emission reductions.

D.3.5 Demonstration of additionality

Means of Project Verification	In line with paragraph 45 of the Project Standard v3.1 /15/, GCC project activities are required to undergo the following tests to demonstrate additionality: A. Legal requirement Test: As established in section D.1 above, the project is an A3 type project, and has not been required by a legal mandate and it does not implement a legally enforced mandate. The project complies with national requirements: 1. The National Electric System Operator (ONS from the Portuguese Operador Nacional do Sistema Elétrico) /43//44/; 2. The Electricity Regulatory Agency (“ANEEL” from the Portuguese Agência Nacional de Energia Elétrica) /46/ /33/; 3. The Mines and Energy Ministry (“MME” from the Portuguese Ministério de Minas e Energia) /48/; 4. The Energy Research Company (“EPE” from the Portuguese Empresa de Pesquisa Energética) /49/ 5. State Secretariat for Environment and Sustainable Development (“SEMAD” from the Portuguese Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável) /47/; and 6. The Chamber of Electrical Energy Commercialization (“CCEE” from the Portuguese Câmara de Comercialização de Energia Elétrica) /45/. These are the main legislation that governs the electricity sector in Brazil. However, there is no specific legislation governing renewable energy in Brazil. As renewable energy is considered as a part of the electricity sector, it is governed under the provisions of ONS and ANEEL requirements, which provides a framework for the generation, transmission, distribution, trading and use of electricity. The project complies with all the applicable host country legal requirements and it ensures compliance with legal requirements as it has acquired power operation license issued by the regulatory Agency (ANEEL) /33/ and environmental operational licenses /27/. Therefore, based on the desk review, on site assessment and sectoral expertise of

	the team, it is confirmed that the project is meeting all the host country regulations. B. Additionality Test: In line with paragraph 49 of the Project Standard v3.1 /15/, additionality has been demonstrated considering the requirements of the methodology. As per the paragraph 29 of the applied methodology (ACM0002 version 21.0) /5/, "The additionality of the project activity shall be demonstrated and assessed using the latest version of the "TOOL01: Tool for the demonstration and assessment of additionality". Therefore, project owner has demonstrated additionality of the project activity in line with the "Tool for the demonstration and assessment of additionality"– (Version 07.0.0) /6/. The tool provides a step-wise approach to demonstrate and assess the additionality of a project. These steps are as follows: **Step 0: Demonstration whether the proposed project activity is the first-of-its-kind** PO has not applied this step, since the project is not a first-of-its-kind. **Step 1: Identification of alternatives to the project activity consistent with current laws and regulations** **Sub-step 1a: Define alternatives to the project activity** The alternatives identified for the project activity are: 1. Project being undertaken without being registered as a GCC project activity. 2. Continuation of the current situation (no project activity is undertaken), i.e., the additional electricity generated by the project would be generated by existing or new power plants connected to the national electric system. Based on the local and technical expertise of the verification team, it is confirmed that both the alternative scenarios are credible and realistic. **Sub-step 1b: Consistency with mandatory laws and regulations** Alternative 1: Project being undertaken without being registered as a GCC project activity As discussed above in the legal requirement test, this alternative complies with all the applicable legal and regulatory requirements of Brazil. Alternative 2: Continuation of the current situation and no project activity is undertaken. Installation of power projects and continuation of current situation i.e., supply of electricity through existing or new power plants connected to the national electric system is consistent with laws. Thus, both scenarios are in compliance with mandatory laws and the Brazilian regulatory framework that created two parallel electricity trading environments: Regulated Contracting Environment (ACR – from Portuguese "Ambiente de Contratação Regulada") and Free Contracting Environment (ACL – from Portuguese "Ambiente de Contratação Livre").

	Outcome of Step 1: Considering both the alternatives (1 and 2) i.e., continuation of the current situation and project being undertaken without being registered as a GCC project activity are in compliance with mandatory legislations and regulations taking in to account the enforcement in the host country. **Step 2: Investment analysis** The project owner is required to determine whether the project activity is economically or financially less attractive than other alternatives without the revenue from the sale of Approved carbon credits (ACCs). To conduct the investment analysis, project owner has used the following sub-steps as per the applied methodology /5/: ***Sub-step 2a:*** **Determine appropriate analysis method** Since the proposed project will generate other financial/economic benefits than GCC related income, the simple cost analysis method (Option I) is not appropriate. Also, investment comparison analysis method (Option II) is only applicable to projects whose alternatives are similar investment projects. Therefore, benchmark analysis (Option III) has been opted. ***Sub-step 2b: Option III. Apply benchmark analysis*** Benchmark selection The project owner has selected Internal Rate of Return (post-tax Equity IRR) /3/ as the financial indicator for the demonstration of financial unviability for the proposed project activity. A suitable benchmark i.e., expected return on project has been selected as benchmark comparison purposes. The source of benchmark was assessed by the verification team and the selected post-tax Equity IRR and selected benchmark were found to be appropriate and in-line with applied tools, guidelines and other supporting documents provided by PO. The selected benchmark is calculated in line with the TOOL27 /10/. The expected return on equity (r_e) is estimated using default values stated for various countries in the Appendix of the methodological tool Investment Analysis /10/ and for renewable energy projects which fall under the sectoral scope 1 i.e., Energy the default value is 10.91% for Brazil, in real terms. However, in line with paragraph 16 of “Methodological tool - Investment analysis” (Version 12.0) /10/, in situations where an investment analysis is carried out in nominal terms and the available IRR benchmarks are in real terms, project participants shall convert the real term values of benchmarks to nominal values by adding the inflation rate and the inflation rate shall be obtained from the inflation forecast of the central bank of the host country. Therefore, in accordance with the requirements, inflation forecast of 4.80% (accumulated annual average inflation rate was calculated considering Focus Report) /57/ has been taken. Therefore, the nominal cost of equity is calculated as Nominal cost of equity = (1+10.91%) * (1+4.80%) -1 = **16.24%** The verification team cross-checked the values presented and confirmed that this value is appropriate and valid at the time of the investment decision and is thus correct. Thus, the nominal post-tax Equity IRR is calculated to be 16.24%. This benchmark is not specific to the project, since it was calculated based on public data considering the risk faced by any solar power project in Brazil. The date of the investment decision has been considered as the date when the photovoltaic modules were purchased (25/11/2021) /71/. Therefore, selected benchmark value was found to be appropriate for this project.

Parameters used in the investment analysis
Verification team has validated all input values to the investment analysis based on appropriate evidence, as described below:

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

Parameters used in the investment analysis

Technical details	Value	Source/Justification
Installed capacity	60 MW	Project Verification team has checked the energy production report /26/ to confirm the capacity and the same was further cross verified from actual ANEEL dispatches /33/. The information was also confirmed during the onsite inspection through checking the control system of the wind farm by the verifier.
Expected energy generation (P90)	18.44 MW	Project Verification team has confirmed the energy generation value from the business plan UFV Coromandel – Plano de Negócios /69/. As described in this document, the PLF was determined by a third party company /26/. Thus, PLF value consideration is in line with para 3 (a) of EB 48 Annex 11 and hence accepted by the assessment team /11/. KBS confirmed that the value of the parameter was available at the time of the investment decision and consider that the plant load factor reasonable for solar power plants in Brazil. It is KBS opinion the selected load factor is reasonable and acceptable. For the investment analysis, PO considered the expected energy production for the first year of the project activity (PLF around 30.74%) which is greater than the value applied in the emission reductions spreadsheet that considered the annual average energy production (PLF of 28.6%).
Electricity tariff	R$ 260.00/MWh for the 1st 15 years R$ 200.00/MWh for the 16 year onwards	Project Verification team has confirmed the electricity tariffs from the business plan UFV Coromandel – Plano de Negócios /69/. As described in this document, the energy price was determined based on the three signed PPAs for the first 15 years /70/. Project Verification team has checked the Power Purchase Agreements signed on 05/07/2021 /70/ and confirmed the value. Regarding to the price for the year 16 onwards, PO considered in the business plan /69/ that the PPAs will be renewed with a lower price.

Project cost	Value	Source/Justification
Capex	R$	CAPEX includes the purchase of the PV

			264,794,745.00	modules, inverters, trackers, civil construction, among others as described in the business plan UFV Coromandel – Plano de Negócios /69/. The Business Plan dated 30/11/2021 was presented to the company's partners and accepted on 06/12/2021. From this value, 96.86% was cross-checked against actual values and it is possible to confirmed that the value used for assumption is reasonable and appropriate for the time of the investment decision. The construction of the solar power plant (main equipment and civil construction) represents around 88.24% of the total CAPEX – R$ 233,646,770.00. <u>PV module cost</u>: • R$ 97,384,530.00 The cost of modules represents 36.78% of the total CAPEX. Project Verification team has checked the supplier agreement for modules /71/ signed on 25/11/2021 and confirmed the value. This value represent the economic situation at the time of the investment decision. <u>Inverter + combiner box and inverter logistics cost</u>: • R$ 18,311,203.00 The value estimated for inverter + combiner box and inverter logistics was based on the Business plan UFV Coromandel – Plano de Negócios accepted by the company's partners. The real costs in the project activity are verified to be R$ 17,797,195.05. This information has been confirmed and cross-checked by KBS through assessment of the agreement signed on 29/12/2021 /72/ which is considered the actual costs of inverters + combined box and inverter logistics of the project. Thus, it is possible to confirmed that the value used for assumption of inverter + combined box and inverter logistics costs is reasonable and appropriate for the time of the investment decision. <u>Tracker cost</u>:	

				• R$ 53,149,038.00 The value estimated for trackers costs was based on the Business plan UFV Coromandel – Plano de Negócios accepted by the company's partners. The real costs in the project activity are verified to be R$ 49,498,153.00. This information has been confirmed and cross-checked by KBS through assessment of the agreement signed on 14/01/2022 /73/ which is considered the actual costs of trackers of the project. Thus, it is possible to confirm that the value used for assumption of trackers costs is reasonable and appropriate for the time of the investment decision. <u>Civil construction</u>: • R$ 50,078,049.00 The value estimated for civil construction was based on the Business plan UFV Coromandel – Plano de Negócios accepted by the company's partners. The real costs in the project activity are verified to be R$ 54,000,000.00. This information has been confirmed and cross-checked by KBS through assessment of the agreement signed on 23/12/2021 /74/ which is considered the actual costs of civil construction of the project. Therefore, the costs of R$ 50,078,049.00 as described in the business plan used for the financial analysis spreadsheet is more conservative than the real costs which corresponds to R$ 54,000,000.00. Thus, it is possible to confirm that the value used for assumption of civil construction costs is reasonable and appropriate for the time of the investment decision. <u>SE elevator and sectioning costs</u>: R$ 25,195,345.00 This value represents around 9.52% of the total CAPEX. From this value, around 91% was cross checked against actual values /75/ - /80/ and it is possible to confirm that the value used for assumption of SE elevator and sectioning costs is reasonable and appropriate for the time of the investment decision.	

Debt	58.8%	The value estimated was based on the Ministry of Economy webpage and confirmed through the Newsletter Debentures The real value is verified to be 75.16%. This information has been confirmed and cross-checked by Project Verification Team through the debentures issuance contract dated 23/09/2022 /81/.
Spread BNDES	7.4%	The value estimated was based on the Ministry of Economy webpage and confirmed through the Newsletter Debentures The real value is verified to be 8.82% and was confirmed by the Project Verification Team through the debentures issuance contract dated 23/09/2022 /81/.

Taxes and depreciation	**Value**	**Source/Justification**
PIS/COFINS	3.65%	This is verified to be as per Brazilian laws 10,637 (3% for PIS) and 10,833 (0.65% for COFINS) and Brazilian Normative Instruction SRFB 1,911 /59/. This value is in accordance with the Brazilian national regulation and is reasonable and appropriate for the time of the investment decision.
Income tax (IR)	25% on 32% of gross revenues	This is verified to be as per Brazilian laws 8,541 (25%) /60/ and 9,249 (32%) /61/. This value is in accordance with the Brazilian national regulation and is reasonable and appropriate for the time of the investment decision.
Social contribution (CSLL)	9% on 32% of gross revenues	This is verified to be as per Brazilian laws 9,249 (32%) and 7,689 (9%) /61/. This value is in accordance with the Brazilian national regulation and is reasonable and appropriate for the time of the investment decision.
Depreciation	4%	A depreciation of 4% for the modules is verified to be as per Manual of Power Sector Asset Control /50/.

Operational expenditures	**Value**	**Source/Justification**
Distribution Cost (TUSD)	R$ 5.09/MWh per year	The tariff for the Use of the Distribution System (TUSD) is verified to be as per ANEEL resolution 2,894 /56/ which list the TUSD applicable to the project substation that dispatches electricity to the grid. This value is in accordance with the Brazilian national regulation and is reasonable and appropriate for the time of the investment

		decision.
TUSD Discount	50%	The discount applied to the tariff TUSD is verified to be as per Brazilian law 9,427/1996 article 12 /62/ and power operation licenses /33/. This value is in accordance with the Brazilian national regulation and is reasonable and appropriate for the time of the investment decision.
MUSD	60 MWac	This is verified to be as agreement signed between Coromandel and the distribution company /63/.
Land Lease	R$ 620,725.00 per year	This is verified to be as per contract signed with landowner in the area of the PV power plant /58/. Project verification team cross-checked the land lease agreement /58/ and confirmed this value. The agreement was signed before the investment decision date. This value is reasonable and appropriate for the time of the investment decision.
Insurance	R$ 397,192.00 per year	This value is verified to be as described in the business plan UFV Coromandel – Plano de Negócios. The Business Plan dated 30/11/2021 was presented to the company's partners and accepted on 06/12/2021. The real value is verified to be R$ 404,406.77. This information has been confirmed and cross-checked by Project Verification Team through the insurance policy of the proposed project /82/.
SG&A	R$ 100,000.00 per year	This value is verified to be as described in the business plan UFV Coromandel – Plano de Negócios. The Business Plan dated 30/11/2021 was presented to the company's partners and accepted on 06/12/2021. The real value is verified to be R$ 1,085,619.82. This information has been confirmed and cross-checked by Project Verification Team through the balance sheet of the company /83/.
O&M	R$ 1,200,000.00 per year Increase of 3% from year 11 to year 30	This value is verified to be as described in the business plan UFV Coromandel – Plano de Negócios. The Business Plan dated 30/11/2021 was presented to the company's partners and accepted on 06/12/2021. The real value is verified to be R$ 1,250,288.67. This information has been confirmed and cross-checked by Project Verification Team through the balance sheet of the company /83/.

Based on the above values, post-tax Equity IRR has been calculated as 11.01% without the consideration of ACC revenue. The calculation of this value has been verified from the submitted IRR sheet /3/ and in accordance with the "Methodological tool - Investment analysis" /10/.

The date of the investment decision has been considered as the date when the photovoltaic modules were purchased (25/11/2021). Verification team confirms that this date corresponds to the project's first commitment to expenditures and is the earliest date at which the implementation and real action of a project activity begins. It was noted that investment analysis was conducted based on inputs that were available at the time of investment decision. Therefore, in line with paragraph 10 of the "Methodological Tool: Investment analysis" /10/ all input values were known before the investment decision date and can therefore be considered realistic and appropriate values to be used in the financial calculation of the proposed project activity.

For calculation of financial indicator, all relevant costs and revenues were found to be included in the IRR sheet /3/ provided by PO. All assumptions and estimates used for input values were checked against the relevant sources.

In accordance with paragraph 16 of the "Methodological Tool: Investment analysis", version 12.0 /10/, the post-tax Equity IRR was calculated to be 11.01%, as confirmed from the submitted IRR sheet /3/.

Calculated post-tax project IRR	Applicable benchmark
11.01%	16.24%

As the GCC project activity has a less favourable indicator than the financial benchmark, then the GCC project activity cannot be considered as financially attractive for the Project proponent.

Sub-step 2d: Sensitivity analysis

Project owner has carried out the sensitivity analysis on the parameters which are likely to have material impact on post tax Equity IRR. To check the robustness of calculation the following parameters have been selected.

1. Reduction in project cost (CAPEX)
2. Increase in electricity tariff
3. Increase in annual power generation
4. Reduction in O&M cost

The project verification team confirms that the parameters that have been subjected to the sensitivity are in line with para 27 of the "Methodological tool: Investment Analysis," /10/. The sensitivity analysis covers a reasonable range of +10% and -10%, which is in conformity with para 28 of the "Methodological tool: Investment Analysis," /10/. In addition, scenarios for sensitivity analysis were simulated by altering parameters with the necessary variation to reach benchmark.

Table- Sensitivity analysis; impact of variations in assumptions on the project IRR

Parameters	% change	IRR	% change to reach the benchmark
Expected energy generation (PLF)	10.00%	12.61%	33.25%
O&M costs	-10.00%	11.07%	Impossible value
CAPEX	-10.00%	12.59%	-27.33%

Electricity tariff (long term contract)	10.00%	12.44%	35.78%
Electricity tariff (after long term contract)	10.00%	11.21%	491.00%

CAPEX – To reach the benchmark, CAPEX should be reduced in 27.33%. At the time of this Project Verification Report, all components of CAPEX were already contracted /71/ - /80/ and were confirmed by Verification team. The real costs accounts to R$ 259,472,469.00 /71/ - /80/. This corresponds to costs being around 2.0% lower than the estimated value (R$ 264,794,745.00). KBS verified that 88.24% of the estimated total investment of R$ 264,794,745.00 was derived from the signed contract for the construction of the solar power plant /71/ /72/ /73/ /74/. Thus, any variation on the CAPEX would have to be marginal.
Hence, a 27.33% decrease in project costs is not likely.

O&M costs - The result of the sensitivity analysis shows that an 10% reduction in O&M costs when compared to the base case assumption would not materially affect the Project's return. Even if the O&M cost was disregarded (O&M Cost = 0), project IRR would not reach the benchmark. KBS, acknowledges that this is not possible to happen.

Expected energy generation (PLF) – If the project generates 33.25% more than estimated the project IRR will reach the benchmark. However, the annual electricity generation of the proposed project is derived from the energy production report /26/ which was prepared by AWS Truepower on 14/09/2021, an independent third-party company, using scientific methodology and local measurements. The annual electricity generation can be considered as the information provided by a trustworthy and recognized source.
According to the information obtained from CCEE website in 07/2023, the average energy generation by the PV power plant during the preceding seven months was 16.94 MW /86/ which is lower than the project's expected generation value (18.44 MW).
Considering that the annual output calculations for the proposed project were carried out by specialized third part company, it is unlikely that the electricity delivered to the grid will suffer this additional increase.

Electricity tariff – The variation of the electricity tariff was assessed for two periods: one from year 1 to 15 and the other from year 16 onwards. The energy price was determined based on the three signed PPAs for the first 15 years /70/. The price was fixed in long-term contracts and not subjected to variations. Thus, the increase of 35.78% in the electricity price of the first 15 years is not likely to happen.

Regarding to the price for the year 16 onwards, PO considered that the PPAs will be renewed with a lower price. Based on the local and technical expertise of the verification team, it is confirmed that the factors described in the PSF will keep energy prices at minimum levels and thus, an increase of 491% is not likely.
Therefore, this scenario is unrealistic.

The sensitivity analysis confirms that the post-tax Equity IRR without GCC revenues is unlikely to meet the required benchmark of 16.24%.

Step 3: Barriers analysis;
The additionality of the project has been demonstrated by applying the investment analysis; therefore, no barriers analysis is carried out.

Step 4: Common practice analysis

	Sub-step 4a) The proposed project activity applies measures that are listed in the definitions section of Tool for the demonstration and assessment of additionality version 07.0.0 In accordance with paragraph 57 of the "Tool for the demonstration and assessment of additionality" – (Version 07.0.0) /8/, the project has been subjected to an analysis of the extent to which the proposed project type (e.g. technology or practice) has already diffused in the relevant sector and region. As per the requirement of the tool "Common Practice", Version 3.1 /9/, "the applicable geographical area should be the entire host country. If the project participants opt to limit the applicable geographical area to a specific geographical area (such as province, region, etc.) within the host country, then they shall provide justification on the essential distinction between the identified specific geographical area and rest of the host country". Thus, POs have identified host country, i.e., Brazil as applicable geographical area. According to the methodological tool "Common Practice", Version 3.1 /9/, the stepwise demonstration of common practice analysis is verified as follows: **Step 1**: **Calculate applicable capacity or output range as +/-50% of the design capacity or output of the proposed project activity.** The project owners analysed power plants connected to the Brazilian Interconnected System with an installed capacity from 30 MW to 90 MW, which was correctly calculated as +/-50% of the installed capacity of the proposed project activity (60 MW). **Step 2**: **Identify similar projects (both CDM and non-CDM) which fulfil all of the following conditions:** (a) The projects are located in the applicable geographical area **(Brazil);** (b) The projects apply the same measure as the proposed project activity **(Power generation based on renewable energy);** (c) 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 **(Photovoltaic power plants were selected as the same energy source type of project);** (d) 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 **(photovoltaic power plants that deliver electricity to the grid were identified)**; (e) The capacity or output of the projects is within the applicable capacity or output range calculated in Step 1 **(30 MW to 90 MW);** (f) The projects started commercial operation before the PSF is published for global stakeholder consultation or before the start date (as per CDM glossary) of proposed project activity, whichever is earlier for the proposed project activity **(investment decision date /71/ - all plants that were in commercial operation at this time were selected).** The geographical area for the purpose of common practice analysis was determined by the project owners as Brazil. In this step, the project owners aimed to list all wind power plants generating electricity within the capacity range of **30 MW to 90 MW** and that commissioned before 25/11/2021.

Project owner has identified 19 projects /30/ that satisfy the criteria of step 2 of the common practice tool.

Step 3: **within the projects identified in Step 2, identify those that are neither registered CDM project activities, project activities submitted for registration, nor project activities undergoing validation. Note their number N_{all}.**

Out of the 19 projects identified in Step 2 above, six of these projects are under validation or registered under other GHG programs /51//52//53//54//55/ respectively as indicated in the following table. Hence, it could be ruled out of further analysis.

Name of Plant	Installed Capacity (MW)	GHG program	Project ID
Solar Salgueiro	30	GCC	S01081 /84/
Solar Salgueiro II	30	GCC	S01081 /84/
Solar Salgueiro III	30	GCC	S01081 /84/
Conj. Jaíba	88.5	GCC	S01081 /84/
Assú V	34	CDM	10286-P1-0002-CP1 /85/
Conj. Floresta	86	CDM	10286-P1-0003-CP1 /85/

So, $\mathbf{N_{all}}$ **=** 19-6 = **13**

Therefore, the number N_{all} from Step 3 Common practice tool would be: $\mathbf{N_{all} = 13}$

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}.

From the 13 plants identified in Step 3 above, 13 plants were found to be meeting the applicability criteria i.e., apply technologies that are different to the technology applied in the proposed project. As per the Common Practice tool, the project activities have been separated from the different technologies which is defined by paragraph 12 (d) Investment climate on the date of the investment decision; (iv) Legal regulations.

As per **CCEE – Electric Energy Trading Chamber** /45/ definitions, there are different types of market for negotiating energy:

- **ACL** - Free Contracting Environment (from Portuguese Ambiente de Contratação Livre): where all the aspects and intrinsic risks are negotiated between the generator and the purchaser of energy.
- **LER** - Reserve Energy Auctions (from Portuguese Leilão de Energia de Reserva): In this type, the government is responsible via auction, for regulating tariffs, periodicity, terms and volumes. There is a band to mitigate the impacts of variations in generation volume on revenue, with seasonal and hourly variation risks also allocated to consumers. Auction for the purpose of contracting electricity from new projects to guarantee supply to the National Interconnected System (SIN).

- **LEN D** - New Energy Auction (from Portuguese Leilão de Energia Nova por Disponibilidade): based on availability is when the risks, burdens and benefits of short-term production variation are allocated to consumers through tariffs. The selling agent receives a monthly fixed installment. In the case of energy production greater than the contracted energy within a specified interval in the contract, the purchasing agent realizes the revenues from the sale of this surplus in the short-term market. In the case of production lower than the contracted quantity, the purchasing agent bears the costs of settling this difference at the short-term market price. That is, in this type of contract, consumers are subject to financial exposure in the short-term market, whether positive or negative.
- **LEN Q –** New Energy Auction by Quantity (from Portuguese Leilão de Energia Nova por Quantidade): If it produced less than it sold, it has to be bought at the market energy price.
- **LFA –** Auction of Alternative Sources (from Portuguese Leilão de Fontes Alternativas): Electricity auction from renewable sources.
- **PROINFA** - Program of Incentive to Alternative Sources of Electric Energy (from Portuguese Programa de Incentivo às Fontes Alternativas de Energia Elétrica): was established in 2002 with the objective of increasing the participation of electricity produced by Independent Producers from wind and biomass sources and from small hydroelectric plants in the National Interconnected System. PROINFA is based on feed in tariffs.

In addition, ANEEL authorized the generation of its own energy.

- **AUTOPRODUCTION** (from Portuguese Autoprodução): Modality in which the consumer has a concession or authorization to invest in the generation of its own energy.

Coromandel project is an autoproduction plant as verified through the signed PPAs /70/ and ANEEL resolutions /33/.
From the 13 plants identified in Step 3, 13 plants were identified as a different class of Coromandel.

Project activity identified in Step 3	Class /87/	Same class?
Conj. Sol do Futuro	LER	No
Assuruá	LER	No
Conj. São Pedro	LER	No
Sertão 1	LER	No
Sobral 1	LER	No
Conj. BJL	LER	No
Guimarania 1	LER	No
Guimarania 2	LER	No
Sobrado 1	LER	No
Conj. Horizonte	LER	No
Conj. Dracena	LER	No
Conj. Bom Jesus	LER	No
Conj. Lapa	LER	No

	Therefore, **N_{diff} = 13 – 13 = 0**. **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.** As per the approach of the project verification team, the factor F is calculated using the following formula; **F=1 – 13 / 13 = 1- 1 = 0** The proposed project activity is a "common practice" within a sector in the applicable geographical area if the factor F is greater than 0.2 and Nall-N_{diff} is greater than 3. Since, **F = 0 <0.2 and** **N_{all} -N_{diff} = 13 - 13 = 0 < 3** Therefore, the verification team confirms that the proposed project activity is not a 'common practice' within the sector in the applicable geographical area since N_{all}-N_{diff} is not greater than 3. In conclusion of the overall additionality demonstration, the proposed project activity is deemed additional
Findings	CL 02 and CAR 02 were raised and resolved. Please refer appendix 4 for more information.
Conclusion	The information mentioned in the PSF /1/ is duly supported by evidence quoted therein. The verification team has described all steps taken, and sources of information used to cross-check the information contained in the PSF /1/. The verification team determined that the evidence assessed is credible, where appropriate. Based on the assessment described above, the KBS verification team confirms that the project activity is additional and is demonstrated to be additional in line with the requirements of Tool for the demonstration and assessment of additionality version 7.0 /6/ and according to paragraph 50 and 51 of the GCC Project standard Version 3.1 /15/.

D.3.6 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	In accordance with the applied methodology ACM0002 version 21.0 /5/, the project owner in the PSF /1/ has calculated Emission Reductions in the following manner: $ER_y = BE_y – PE_y - LE_y$ Where: ER_y = Emission reductions in year *y* (tCO_2e) BE_y = Baseline Emissions in year *y* (tCO_2e) PE_y = Project Emissions in year *y* (tCO_2e) LE_y = Leakage Emissions in year *y* (tCO_2e) Baseline Emissions As per the approved methodology ACM0002 (version 21.0) /5/, baseline emissions include only CO_2 emissions from electricity generation in power plants that are displaced by the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants.

	Baseline emissions are calculated as the product of the Baseline Emission Factor ($EF_{grid,CM,y}$ in tCO_2/MWh) times the electricity supplied by the project. $BE_y = EG_{PJ,y} * EF_{grid,CM,y}$ Where: BE_y = Baseline emissions in year *y* (tCO_2e/year); $EG_{PJ,y}$ = 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/year); $EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y (tCO_2e/ MWh). If the project activity is the installation of a Greenfield power plant, then: $EG_{PJ,y} = EG_{facility,y}$ Where: $EG_{PJ,y}$ =Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM (in this case GCC) project activity in year y (MWh/year); $EG_{facility,y}$= Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/year). KBS verified that for the ex-ante estimative, the assured energy described in the PSF is used /1/ equal 144,433 MWh/year. For the combined emission factor, data is provided by the Brazilian DNA /28/, in accordance with the requirements of TOOL07 /8/, as described below. Verification team confirmed that the calculation of the grid emission factor is as per paragraphs 8 (a) and (c) Clarification 03 /23/. **STEP 1: Identify the relevant electricity system** The Brazilian DNA published a Resolution #08, issued on 26/05/2008 /29/, defines the Brazilian Interconnected Grid as a single system that covers all the five macro-geographical regions of the country (North, Northeast, South, Southeast and Midwest). **STEP 2: Choose whether to include off-grid power plants in the project electricity system (optional)** The Brazilian DNA is responsible for calculating the emission factors and it did not include off-grid power plants in the calculation, therefore Option I is used: Only grid power plants are included in the calculation. **STEP 3: Select a method to determine the operating margin (OM)** The Brazilian DNA is responsible for calculating the OM emission factor in Brazil. It uses the method c) Dispatch data analysis OM. For the dispatch data analysis OM, it is necessary to use the year in which the project activity displaces grid electricity and to update the emission factor annually during monitoring.

Step 4: Calculate the operating margin emission factor according to the selected method

$$\mathrm{EF}_{\mathrm{grid,OM-DD,y}} = \frac{\sum_m EG_{PJ,h} \times EF_{EL,DD,h}}{EG_{PJ,y}}$$

Where:

$EF_{grid,OM-DD,y}$ = Dispatch data analysis operating margin CO_2 emission factor in year y (tCO_2/MWh);

$EG_{PJ,h}$ = Electricity displaced by the project activity in hour h m of year y (MWh);

$EF_{EL,DD,h}$ = CO_2 emission factor for power units in the top of the dispatch order in hour h in year y (tCO_2/MWh);

$EG_{PJ,y}$ = Total electricity displaced by the project activity in year y (MWh);

h = hours in year y in which the project activity is displacing grid electricity;

y = Year in which the project activity is displacing grid electricity.

For the ex-ante estimative, dispatch data for 2022 was used $EF_{grid,OM-DD,y}$= 0.4068 tCO_2/MWh (latest data available) /28/.

Step 5. Calculate the build margin (BM) emission factor

For data vintage, Option 2 (ex-post) was chosen for the proposed project for the fixed 10-years crediting period. Latest data available at the time PSF was submitted to DOE for starting of the validation is from 2022, thus $EF_{grid,BM,y}$ = 0.0270 tCO_2 /MWh /28/.

Step 6: Calculate the Combined Margin emission factor

$$EF_{grid,CM,y} = EF_{grid,OM,y} \times w_{OM} + EF_{grid,BM,y} \times w_{BM}$$

According with the Tool, values adopted for w_{OM} and w_{BM} is equal w_{OM}= 0.75 and w_{BM}=0.25 and the estimated ex-post emission factor is as follows:

$EF_{grid,CM,y}$ = 0.75 * 0.4068 + 0.25 * 0.0270 tCO_2e/MWh
$EF_{grid,CM,y}$ = 0.3118 tCO_2e/MWh

Verification team confirms that the combined margin emission factor was correctly calculated following the steps described in TOOL07 /8/.

Year	$EG_{facility,y}$ (MWh)	$EF_{grid,CM,y}$ (tCO_2e/MWh)	BE_y (tCO_2e)
2024	80,999	0.3118	25,255
2025	161,331	0.3118	50,303
2026	161,096	0.3118	50,230
2027	160,687	0.3118	50,102
2028	160,072	0.3118	49,910
2029	159,379	0.3118	49,694
2030	158,577	0.3118	49,444

	2031	157,675	0.3118	49,163
	2032	156,739	0.3118	48,871
	2033	155,796	0.3118	48,577
	2034	76,410	0.3118	23,825
	Total estimated			495,377
	Annual average over the crediting period			49,538

The PLF of the plant has been calculated to be 28.60% for Coromandel 1 and Coromandel 2 PV power plants sourced from the AWS Truepower Report /26/.
The source of the amount of energy generated is in accordance with EB48 Annex 11 option (b) /11/. The guidance allows the use of plant load factor determined by a third contracted by the project participants (e.g. and engineering company /26/).

As per applied methodology ACM0002 version 21.0 /5/, project emissions are 0 tCO_2e. These emissions are only considered by ACM0002 for geothermal and solar thermal projects and hydro power plants.
According to applied methodology ACM0002 version 21.0 /5/, no other leakage emissions are considered. The emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g., extraction, processing, transport etc.) are neglected.

Hence, PE_y and LE_y = 0 tCO_2e

Therefore, emission reductions are calculated as
$ER_y = BE_y - PE_y - LE_y$ = 49,538 -0 - 0 = 49,538 tCO_2e/year.

The ex-ante estimates given in the PSF /1/ are conservative and all input parameters have been separately verified.

The project verification team confirms that the estimates of baseline emissions can be replicated using the information provided in the final PSF /1/ and emission reduction spread sheet /2/ being submitted for registration.

Findings	CL 03 and CAR 02 were raised and resolved. Please refer appendix 4 for more information.
Conclusion	The project verification team confirms the following; • All assumptions and data used by the project owners are listed in the PSF /1/, including their references and sources; • All documentation used by project owners as the basis for assumptions and source of data is correctly quoted and interpreted in the PSF; • All values used in the PSF are considered reasonable in the context of the proposed project activity; • The baseline methodology /5/ and the applicable tool(s) have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions; • All estimates of the GHG emissions can be replicated using the data and parameter values provided in the PSF /1/; • No sampling has been applied in the project activity. Thus, it is in line with paragraph 55, 58 and 59 of the Project standard Version 3.1 /15/.

D.3.7 Monitoring plan

Means of Project Verification	The monitoring plan is included in Section B.7 of the PSF /1/ based on the approved monitoring methodology ACM0002 version 21.0 /5/ and is correctly applied to the

project activity. The monitoring plan has been found to be in compliance with the requirements of the applied methodology for calculation of GHG emission reductions, GCC Project Standard version 3.1 /15/, GCC Verification Standard version 3.1 /16/, GCC Environment and Social Safeguards Standard version 3.0 /17/, and Project Sustainability Standard version 3.1 /18/.
The monitoring plan includes following key parameters:

<table>
<tr><td>1</td><td>$EG_{PJ,y}$</td><td>Quantity of net electricity supplied by the project plant to the grid in year y in MWh
The energy meters installed at the grid substation are as follows.
<table>
<tr><th>Nomenclature</th><th>Meter Sr. No</th><th>Accuracy</th><th>Location of meter</th></tr>
<tr><td>Main Meter</td><td>MW2207A026-02</td><td>0.2%</td><td rowspan="2">Coromandel 3 substation</td></tr>
<tr><td>Backup Meter</td><td>MW2207A05-02</td><td>0.2%</td></tr>
</table>
Above stated meter serial No’s were verified at the time of physical visit. Further, Project verification team noted that meter make, serial numbers are subject to change during the project lifetime due to various reasons beyond the control of PO. This shall not be construed as Post Registration Change in project design /7/.
The energy accounted is taken from CCEE databank. There are two bi-directional meters (one main and one backup) of 0.2% accuracy class /43/ located at Coromandel 3 substation. In the event main meter is not in service then the backup meter shall be used for such duration.
The monitoring parameter is monitored in accordance with TOOL05. Parameter is continuous monitoring, and at least monthly recording for emission reduction. Calibration will be performed in accordance with National System Operator (Operador Nacional do Sistema – ONS) regulations /43/.</td></tr>
<tr><td>2</td><td>$EF_{grid,OM,y}$</td><td>Operating margin CO_2 emission factor in year y in tCO_2/MWh
The monitoring parameter will be determined ex-post based on the most recent information available at Brazilian DNA /28/.</td></tr>
<tr><td>3</td><td>$EF_{grid,BM,y}$</td><td>Build margin CO_2 emission factor in year y in tCO_2/MWh
The monitoring parameter will be determined ex-post based on the most recent information available at Brazilian DNA /28/.</td></tr>
<tr><td>4</td><td>$EF_{grid,CM,y}$</td><td>Operating margin CO_2 emission factor in year y in tCO_2/MWh
The monitoring parameter will be determined ex-post based on the most recent information available at Brazilian DNA /28/.</td></tr>
<tr><td>5</td><td>CO_2 Emissions (EA03)</td><td>Reduction of CO_2 emissions due to implementation of project activity that would otherwise be emitted by thermal power plants in tCO_2.
The parameter is calculated based on the net electricity generation from the project activity and grid emission factor.
The CO_2 emission reductions will be annually monitored and calculated using approved CDM methodology applied /5/ which is checked and found acceptable.</td></tr>
</table>

	6	Solid waste pollution from e-wastes (EL04)	The quantity of e-waste discarded is annually monitored with a reverse logistics plan.
	7	Replacing fossil fuels with renewable sources of energy (ENR07)	The parameter is calculated based on the net electricity generation from the project activity. This parameter will be annually monitored by means of electricity meters as mentioned above in the monitoring parameter $EG_{PJ,facility,y}$.
	8	Long-term Jobs (> 10 year) Created / Lost (SJ01)	This parameter is annually monitored based on the number of jobs created in the long-term basis.
	9	Source of income generation increased / reduced (SJ03)	This parameter is annually monitored based on the income of project employees.
	10	Reducing / increasing accidents / incidents / fatality (SHS03)	Frequency rates of fatal and non-fatal occupational accidents is annually monitored. Information will be cross-checked through the Occupational Accident Reports.
	11	Increased or / deterioratin g municipal revenues (SW05)	This parameter is monitored annually based on the payment of taxes regarding services provided through demanded services.
	12	End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG02)	This parameter is annually monitored based on the number of people impacted.

	13	Ensure healthy lives and promotes well-being for all at all ages (SDG03)	Monitoring annually the health records, payment proof made to NGOs and doctors involved in the activity.
	14	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (SDG04)	Monitoring annually the number of people trained.
	15	Achieve gender equality and empower all women and girls (SDG05)	This parameter is monitored annually based on the number of women trained and benefit by the social project.
	16	Ensure access to affordable, reliable, sustainable, and modern energy for all (SDG07)	This parameter is monitored annually based on the energy generation.
	17	Promote sustainable, inclusive, and sustainable economic growth, full and productive employment and decent work for all (SDG08)	This parameter is annually monitored based on the number of jobs created.

	<table><tr><td>18</td><td>Reduce inequality within and among countries (SDG10)</td><td>This parameter is annually monitored based on increasing revenues to the municipality. Information will be cross-checked through invoices and ISS payments.</td></tr><tr><td>19</td><td>Take urgent action to combat climate change and its impacts (SDG13)</td><td>This parameter is monitored annually based on the average emission reductions.</td></tr></table> The project verification team confirmed that all the above listed parameters are sufficient to calculate the emission reductions including the contribution towards environmental and social safeguards and sustainable development goals in accordance with the methodology and are correctly reported in the PSF /1/.
Findings	CAR 02 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	The verification team confirms that: • The monitoring plan described in the PSF is complying with the requirements of the selected methodology /5/. • Based on detailed review, the monitoring arrangement described in the monitoring plan is feasible within the project design. The verification team confirms that the project owners will be able to implement the described monitoring plan. • The means of implementation of the monitoring plan are sufficient to ensure that the emission reduction achieved from the project activity are verifiable and thereby satisfying the requirement of Verification Standard /16/. The monitoring plan will give opportunity for real measurements of achieved emission reductions. There are no host country requirements pertaining to monitoring of any sustainable development indicators. Therefore, there are no such parameters identified in the PSF /1/.

D.4. Start date, crediting period and duration

Means of Project Verification	Project Owner has selected fixed crediting period of 10 years. The start date of the crediting period considered by PO is 28/12/2022 which is the start date of commercial operation of the project activity /35/. Expected lifetime of the project activity is 30 years, 0 months which is verified based on technical specification of manufacturer /71/.
Findings	CAR 03 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	The start date of the project activity indicated has been checked based on ANEEL dispatches /35/. The expected operational lifetime of the project activity indicated in the PSF /1/ is deemed reasonable based on sectoral expertise of the assessment team. Thus, it satisfies requirement of para 38, 39 and 40(b) of the Project Standard version 3.1.

D.5. Environmental impacts

Means of Project Verification	The Project Activity is located in the host country – Brazil. According to Brazilian environmental law (Federal Resolution CONAMA 001/86 /37/), an Environmental Impact Assessment (EIA) is required to grant the Environmental installation License of electricity generation projects with more than 10 MW of installed capacity. However, as per Normative Deliberation Copam No. 217 dated 06/12/2017 /40/, photovoltaic plants have little degrading potential and thus, these projects are subjected to the Simplified Environmental Licensing (LAS). As stated in the PSF, a Simplified Environmental Licensing (LAS) /27/ has been conducted according to Brazilian law and regulations /37/ /39/ /40/ and the Secretary of State for Environment and Sustainable Development (SEMAD) and the Regional Superintendence for the Environment (SUPRAM) issued the Certificate No. 5374 for the project activity /27/. Hence, an environmental impact assessment was not carried out in accordance with the applicable provisions of host country requirements.
Findings	CL 04 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	Assessment team confirms that the proposed project does not need to carry out Environment Impact Assessment (EIA) however, it abides by all applicable acts and rules /27/ as applicable during the project implementation and operation stages. Assessment team confirms that the proposed project complies to the law.

D.6. Local stakeholder consultation

Means of Project Verification	Brazilian authorities do not require project participant to proceed a stakeholder consultation for GCC projects. Thus, to meet the requirement of the GCC, a LSC was conducted on 11/11/2022 by videoconference. Local stakeholders, such as the Secretary of State for Environment and Sustainable Development – SEMAD, State Environmental Foundation - FEAM, City Hall, universities, technical and research institutes (Faculdade Cidade de Coromandel, Federal and State Universities of Minas Gerais and Instituto Federal de Educação, Ciência e Tecnologia do Triângulo Mineiro) and partners and suppliers (Perfin, Comerc and Solatio) were invited by e-mail on 03/11/2022 to participate of the remote meeting and comment on the project /32/. The consultation was performed to meet the requirement of the GCC since there are no Host Country requirement to conduct consultation for such projects. The verification team confirms that the local stakeholder consultation process was performed by the project owners before the submission of the project activity for global stakeholder consultation. The objective of the local stakeholder consultation carried out to comply with GCC requirements and identify the comments/concerns that might be required to be addressed by PO. KBS team has checked the invitation e-mail, the presence list and the recording of the videoconference. As verified in the recording and document provided with invitation e-mail, the representative of PO explained technical aspects, GCC mechanism and explain about social, environmental benefits and SDG impacts of the project. The verification team confirmed the comments received during the remote meeting. The summary of stakeholders' comments reported in the PSF is accurate. The verification team considers the local stakeholder consultation carried out adequately. The verification team noted that group of stakeholders that were invited includes institutional stakeholders, government bodies, etc. Thus, verification team is of the opinion that the group invited for Local stakeholder consultation were adequately covering all the stakeholders that could have been impacted due to implementation of the project.

	Further, the stakeholders who were interviewed by the team during physical visit informed that there had not been any complaints and that the meetings and consultation have concluded on a positive note.
Findings	CAR 05 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	The verification team confirms that the summary of stakeholders' comments reported in PSF is complete. In the opinion of the team, the local stakeholder consultation process was adequately conducted by the project participant considering the ongoing pandemic to receive unbiased comments from the all the stakeholders. The project verification team confirms that the local stakeholder consultation /32/ process performed for the project activity fulfils the requirements.

D.7. Approval and Authorization- Host Country Clearance

Means of Project Verification	As per GCC program guidelines the submission of HCA on double counting is required by CORSIA labelled project after 31/12/2020 as verified under section D.13 of this report. For carbon credits issued during 01/01/2016 to 31/12/2020 the HC attestation is not required. Thus, for this project activity Host Country clearance is not required at the time of project verification.
Findings	CAR 06 and FAR 01 were raised. Please refer appendix 4 for more information.
Conclusion	The project verification team confirms that no HC approval is required for CORSIA labelled project activity and the HCA will be required during the first or subsequent verification, when the issuance of carbon credit is considered beyond 01/01/2023.

D.8. Project Owner- Identification and communication

Means of Project Verification	The information and contact details of the project owners have been appropriately incorporated in Appendix 1 of the PSF which was checked and verified by the verification team from Authorization letter /36/ signed by the project owner dated 14/11/2022. The information is consistent in these documents. ANEEL permits and other supporting documentation (PV modules purchase contract /71/, EPC contract /73/, Simplified Environmental Licensing (LAS) /27/) used to verify the corporate identity of the legal owners, Project Owners and the authorized focal point as defined in the Letter of Authorization.
Findings	No findings were raised.
Conclusion	The project verification team confirms that the information of the project owner has been appended as per the template and the information regarding the project owners stated in the PSF /1/ and authorization letter /36/ is found to be consistent.

D.9. Global stakeholder consultation

Means of Project Verification	Global stakeholder consultation was held by making PSF /1/ available through the dedicated interface on the GCC website. The duration of the same was from 20/02/2023 to 06/03/2023. No comments were received during this period.
Findings	No findings were raised.
Conclusion	The PSF had been made public for receiving stakeholder feedback and no comments were raised during the GSC process.

D.10. Environmental Safeguards (E+)

Means of Project Verification	The 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 have been indicated as positive impacts, for monitoring of those parameters, please refer to section D.3.7 above. • Environment (Air) – CO_2 emissions: The project will replace the fossil fuel based

	power plants for generation of electricity thus saving CO_2 emissions. These saved emissions will be calculated and monitored as a part of monitoring plan described in the PSF. Score +1. • Environmental (Land) – Solid waste pollution from e-wastes: It is monitored by the facility following the National Solid Waste Policy Law /88/. Score +1. • Environment (Natural resources) – Replacing fossil fuels with renewable sources of energy: By using renewable energy generation, the proposed project activity avoids the use of fossil fuels. The electricity generated from solar power will be monitored throughout the crediting period. Score +1. These reports were also a part of the licensing process and the project developer is required to submit a report annually in compliance with the license. The indicator has therefore been marked harmless and was found acceptable by the team. An appropriate monitoring plan has been put in place to monitor the elements.
Findings	CAR 04 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the environment but would have a positive impact, hence, is eligible to achieve additional E+ certifications. Thus, it satisfies requirement of para 19 of the Environment and Social Safeguards Standard version 2.1. It was confirmed by GCC verifier that individual parameter wise verification opinion on relevance and suitability of parameter, adequacy of mitigation measure, suitability of monitoring parameter and adequacy of data system in place for monitoring, collection reporting and recording of data. Net score 3.

D.11. Social Safeguards (S+)

Means of Project Verification	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 impact. • Social – Jobs: Long-term jobs (> 10 year) created/ lost: Project owner has confirmed that during operational lifetime of the project activity, long term jobs (>10 year) will be created and the records of the same will be maintained for entire emission reduction verification period. Score +1. • Social – Jobs: Sources of income generation increased / reduced: Project owner has confirmed that during operational lifetime of the project activity, job opportunities will be created for the communities which increases the income. The payroll records of the employees will be maintained for entire emission reduction verification period. Score +1. • Social – Health & safety: Reducing / increasing accidents /incidents /fatality: Project owner has confirmed that during operational lifetime of the project activity, there is a possibility of physical hazards in project sites due to human intervention or technical failure or emergency. Health, safety and emergency plan will be implemented and the records of frequency rates of fatal and non-fatal occupational accidents will be maintained for entire emission reduction verification period. Score +1. • Social – Welfare: Increased or / deteriorating municipal revenues: Project owner has confirmed that during operational lifetime of the project activity, the payment of taxes will generate an improvement in the distribution of municipal revenues and the records of the same will be maintained for entire emission reduction verification period. Score +1. PO has described an appropriate monitoring plan to monitor all these elements.
Findings	CAR 04 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	Based on the documentation review the project verification team can confirm that Project Activity is not likely to cause any negative harm to the society but would have

	a positive impact, hence, is eligible to achieve additional S+ certifications. Thus, it satisfies requirement of para 19 of the Environment and Social Safeguards Standard version 2.1. It was confirmed by GCC verifier that individual parameter wise verification opinion on relevance and suitability of parameter, adequacy of mitigation measure, suitability of monitoring parameter and adequacy of data system in place for monitoring, collection reporting and recording of data. Net score 4.

D.12. Sustainable development Goals (SDG+)

Means of Project Verification	The assessment of the contribution of the project activity on United Nations Sustainable Development Goals has been carried out in section F of the PSF. Out of the 17 SDGs, PO has defined project-level 8 SDG targets and indicators. These have no adverse effect on any of the goal and contribute as follows: • Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture; • Goal 3. Ensure healthy lives and promote well-being for all at all ages; • Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; • Goal 5. Achieve gender equality and empower all women and girls; • Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all; • Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; • Goal 10. Reduce inequality within and among countries; • Goal 13. Take urgent action to combat climate change and its impacts. An appropriate identification of contribution of project level to relevant SDGs and its monitoring has been put in place to monitor all the elements.
Findings	CL 05 was raised and resolved. Please refer appendix 4 for more information.
Conclusion	Based on the documentation review the verification team can confirm that the project activity is likely to contribute to the United Nations Sustainable Development Goals and would have a positive impact by achieving 8 out 17 SDGs. Hence, is eligible to achieve additional SDG+ certifications. Thus, it satisfies requirement of para 23-24 of the Project Sustainability Standard version 2.1. It was confirmed by GCC verifier that individual parameter wise verification opinion on relevance and suitability of parameter, adequacy of mitigation measure, suitability of monitoring parameter and adequacy of data system in place for monitoring, collection reporting and recording of data. As confirmed above, the project is likely to contribute to SDGs 2, 3, 4, 5, 7, 8, 10 and 13 thus is likely to achieve the Diamond SDG certification label.

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

Means of Project Verification	A declaration under section A.5 of the PSF /1/ has been included for offsetting the approved carbon credits (ACCs) for the entire crediting period from 01/07/2024 to 30/06/2034. The host country attestation for the same will be obtained during the first issuance of ACCs and accordingly, it shall be confirmed that the project activity will not lead to double counting.
Findings	FAR 01 was raised. Please refer appendix 4 for more information.
Conclusion	The project owner has clarified the intent of use of carbon credits for CORSIA hence, no double counting will take place.

D.14. CORSIA Eligibility (C+)

Means of Project	A declaration under section A.5 of the PSF /1/ has been included for offsetting the

Verification	approved carbon credits (ACCs) for the entire crediting period from 01/07/2024 to 30/06/2034. The project owners have chosen to apply for CORSIA and the host country attestation will be obtained during the first issuance of ACCs and accordingly, it shall be confirmed that the project activity will not lead to double counting. There are other requirements of CORSIA as well for e.g., no net harm to environment and society and emission reductions.
Findings	FAR 01 was raised. Please refer appendix 4 for more information.
Conclusion	The project owner has clarified the intent of use of carbon credits for CORSIA hence, no double counting will take place. The project activity complies with all the applicable requirement for the emission unit criteria of CORSIA.

Section E. Internal quality control

The draft and final verification report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm the internal procedures established by KBS are duly followed and the verification report/opinion is reached in an objective manner and complies with the applicable GCC requirements.

The independent technical reviewer may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before the request for issuance is submitted to GCC. The final decision is taken by the Manager Technical and Certification. The technical reviewer and Manager (Technical &Certification) can be the same person.

The final decision is authorized by Managing Director, KBS once the report is approved by the Manager (Technical & Certification).

Section F. Project Verification opinion

KBS was contracted by Future Carbon Holding S.A. on behalf of GCC project owners for verification of the project activity “Coromandel Renewable Energy Project” in Brazil.

The objectives of this project verification is to validate that the GCC project meets the requirements of GCC project framework v2.1, GCC program manual v3.1, GCC program processes v4.0, GCC project standard v3.1, GCC project sustainability standard v3.1, GCC verification standard v3.1, GCC Environment & Social safeguards standard v3.0, ISO 14064-2 & ISO 14064-3, applicable approved CDM methodology “Grid-connected electricity generation from renewable sources” ACM0002 v21.0, Applicable Legal requirements/rules of host country, National Sustainable Development Criteria and CORSIA requirements and other GCC requirements related to aspects such as project design, applicable conditions, project boundary, baseline scenarios, additionality, emission reduction, monitoring plan, local stakeholder consultation, global stakeholder consultation, GHG emission reductions (ACCs), environmental no-net harm label (E+), social no net harm label (S+), diamond SDG label (SDG+), CORSIA+. This report summarizes the final project verification opinion which is based on Project Submission Form v4.0.

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., v1.1 paragraph 21-23, and the ACCs expected to be issued during the crediting period is likely to be CORSIA eligible and can be used by International Airlines for offsetting their emissions during all phases of CORSIA and therefore requests GCC Steering Committee to append CORSIA Certification label (C+) to this project.”

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 consolidated CDM methodology ACM0002, version 21.0 and is assessed against latest valid PS, VS and Environment and Social Safeguards Standard and/or other applicable GCC/CDM Decisions/Tools/Guidance/Forms.

The project activity is likely to achieve the anticipated emission reductions stated in the PSF provided the underlying assumptions do not change. The expected emission reductions (annual average) from the project activity are estimated to be 49,538 tCO_2e/year over the selected fixed 10 years crediting period starting from 01/07/2024. The project activity is likely to achieve the anticipated emission reductions stated in the PSF provided the underlying assumptions do not change.

KBS has informed the project owners of the verification outcome through the draft verification report and final verification report. The final verification report contains the information with regard to fulfilment of the requirements for verification, as appropriate.
KBS applied the following verification process and methodology using a competent verification team:

- the desk review of documents and evidences 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 and
- preparing a draft verification opinion based on the auditing findings and conclusions
- technical review of the draft verification opinion along with other documents as appropriate by an independent competent technical review team
- finalization of the verification opinion (this report).

KBS Certification Services Limited (KBS) has verified and hereby certifies that the GCC project activity “Coromandel Renewable Energy Project”:

a. has correctly described the Project Activity in the Project Submission Form (Version no.3.0 Dated 01/11/2023) including the applicability of the approved consolidated methodology ACM0002, version 21.0 and meets the methodology applicability conditions, is additional and is expected to achieve the forecasted real, measurable and additional GHG emission reductions, complies with the monitoring methodology, has appropriately conducted local and global stakeholder consultation processes and has calculated emission reduction estimates correctly and conservatively;

b. is likely to generate GHG emission reductions amounting to the estimated 49,538 tCO_2e per year as indicated in the PSF, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable GCC rules, including ISO 14064-2 and ISO 14064-3, and therefore requests the GCC Program to register the Project Activity;

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 No-net-harm Label (E+) and the Social No- net-harm Label (S+); and

d. is likely to contribute to the achievement of United Nations Sustainable Development Goals (SDGs), comply with the Project Sustainability Standard, and contribute to achieving a total of 8 SDGs, which is likely to achieve the Diamond SDG certification label (SDG+).

Appendix 1. Abbreviations

Abbreviations	Full texts
ACC	Approved Carbon Credits
ACM	Approved Consolidated Methodology
AM	Approved Methodology
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
CM	Combined Margin
CO_2	Carbon dioxide
CP	Crediting Period
DNA	Designated National Authority
DR	Desk Review
EIA	Environmental Impact Assessment
FAR	Forward Action Request
GCC	Global Carbon Council
GHG	Green House Gas
IPCC	Intergovernmental Panel on Climate Change
KBS	KBS Certification Services Limited
LAS	Simplified Environmental Licensing (from Portuguese “Licenciamento Ambiental Simplificado)
LSC	Local Stakeholder Consultation Process
MoV	Means of Verification
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
OM	Operating Margin
PSF	Project Submission Form
PE	Project Emission
PLF	Plant Load Factor
PO	Project Owner
PS	Project Standard
RFR	Request for Registration
SDG	Sustainable Development Goal
tCO_2e	Tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
V	Version
VS	Verification Standard

Appendix 2. Competence of team members and technical reviewers

Personnel Name:		Andrea Leiroz	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☐
Technical Reviewer	☐	Local Expert (Brazil, Chile)	☒
Area(s) of Technical Expertise			
Sectoral Scope		**Technical Area**	
Energy industries (renewable/non-renewable sources)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
		TA 1.2: Energy generation from renewable energy sources	
Waste handling and disposal		TA 13.1. Solid waste and wastewater TA 13.2. Manure	
Approved by (Manager C & T)		Shikha Sharma	
Approval date:		16/08/2022	

Personnel Name	Satya Prakash Goyal				
Schemes	☒ CDM	☒ GCC	☒ GS	☒ VCS	☐Other GHG Schemes (mention here)
Qualified to work as					
Team Leader	☐	Technical Expert	☐		
Validator/Verifier	☐	Financial Expert	☒		
Technical Reviewer	☐	Local Expert	☐		
Area(s) of Technical Expertise					
Sectoral Scope		**Technical Area**			
-		-			
Approved by (Manager Competence & Training)		Shikha Sharma			
Approval date		13-01-2022			

Personnel Name:		S.Ranganathan	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☐
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope		**Technical Area**	
SS 01: Energy industries (renewable/non-renewable sources)		TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
		TA 1.2: Energy generation from renewable energy sources	
SS 2: Energy distribution		TA 2.1. Energy distribution	
SS 3: Energy demand		TA 3.1. Energy Demand	
Approved by (Manager C& T)		Shikha Sharma	
Approval date:		11/03/2022	

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	PO	Project Submission Form	Version 1.2 dated 08/02/2023 Version 2.0 dated 04/09/2023 Version 3.0 dated 01/11/2023 Version 3.1 dated 12/12/2023	PO
/2/	PO	Emission reduction spreadsheet: PSF_Calculation_Coromandel Renewable Energy V3.0 - P90.xlsx	Version 1.0 corresponding to PSF version 1.2 Version 3.0 corresponding to PSF version 3.1	PO
/3/	PO	Financial additionality (IRR) worksheet: Coromandel_Plan_v3.0 FINAL.xlsx	Version 1.2 corresponding to PSF version 1.2 Version 3.0 corresponding to PSF version 3.1	PO
/4/	PO	Financial additionality (WACC) worksheet: WACC Coromandel V3.0.xlsx	Version 3.0 corresponding to PSF version 3.1	PO
/5/	UNFCCC	CDM Methodology - ACM0002: Grid-connected electricity generation from renewable sources.	Version 21.0	Others

No.	Author	Title	References to the document	Provider
/6/	UNFCCC	Methodological Tool - TOOL01: Tool for the demonstration and assessment of additionality.	Version 7.0.0	Others
/7/	UNFCCC	Methodological Tool – TOOL05: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation.	Version 3.0	Others
/8/	UNFCCC	Methodological Tool - TOOL07: Tool to calculate the emission factor for an electricity system.	Version 7.0	Others
/9/	UNFCCC	Methodological Tool - TOOL24: Common practice.	Version 3.1	Others
/10/	UNFCCC	Methodological Tool - TOOL27: Investment analysis.	Version 12.0	Others
/11/	UNFCCC	Guidelines for the Reporting and Validation of Plant Load Factors.	Version 01	Others
/12/	ISO	ISO 14064-2 & ISO 14064-3	-	Others
/13/	GCC	Program Framework	Version 2.1	Others
/14/	GCC	Program Manual	Version 3.1	Others
/15/	GCC	Project Standard	Version 3.1	Others
/16/	GCC	Verification Standard	Version 3.1	Others
/17/	GCC	Environmental and Social Safeguards Standard	Version 3.0	Others
/18/	GCC	Project Sustainability Standard	Version 3.1	Others
/19/	GCC	Project Submission Form	Version 4.0	Others
/20/	GCC	Project Verification Report	Version 3.1	Others
/21/	GCC	Standard on Avoidance of Double Counting	Version 1.0	Others
/22/	GCC	GCC's Clarification No. 01 for clarify various sub-types of A2 projects, requirements for bunble projects	Version 1.3	Others
/23/	GCC	GCC's Clarification No. 03 for clarify additional options to determine grid emission factor for renewable projects applying ACM0002 and AMS-I.D.	Version 1.0	Others
/24/	GCC	GCC's Clarification No. 05 for definition and eligibility of Type A3 project.	Version 1.0	Others
/25/	UN	Sustainable Development Goals (SDGs)	https://sdgs.un.org/goals	Others
/26/	AWS Truepower SLU	Energy production report for a period of 20 years.	Dated 14/09/2021	PO
/27/	Environmental Agency (SEMAD)	Certificate No. 5374 Simplified Environmental License.	09/12/2020 and valid until 09/12/2030	PO
/28/	Interministerial Commission in Global Climate Change (DNA of Brazil)	Carbon Emission Factor for the National Grid. Available at: https://antigo.mctic.gov.br/mctic/opencms/ciencia/SEPED/clima/textogeral/emissao_despacho.html.	-	DNA Website
/29/	Interministerial Commission in Global Climate Change (DNA of Brazil)	Resolution #08. Available at: https://antigo.mctic.gov.br/mctic/export/sites/institucional/ciencia/SEPED/clima/arquivos/legislacao_cimgc/Resolucao-n-8-de-26-de-maio-de-2008.pdf.	26/05/2008	DNA Website
/30/	PO	Common practice analysis sheet	Version 2.0 corresponding to	PO

No.	Author	Title	References to the document	Provider
			PSF version 2.0 Version 3.0 corresponding to PSF version 3.0	
/31/	GCC	Self-declaration on double counting	Standard on Avoidance of Double Counting, V1.0 – 2022 https://www.globalcarboncouncil.com/wp-content/uploads/2022/03/Standard-on-Avoidance-of-Double-Counting-V1.pdf	GCC
/32/	PO	Local stakeholder consultation: Invitation letter sent by e-mail for the remote meeting. Recording of the videoconference. List of presence in the videoconference: Formulário de Presença do Projeto Coromandel Renewable Energy Project (1).pdf Material presented to stakeholders: OnePage_Coromandel.pdf.	 03/11/2022 11/11/2022	PO
/33/	Electricity Regulatory Agency (ANEEL)	Power operation license – ANEEL resolutions and dispatched: Coromandel 1. Resolution No. 8452. Available at: https://www2.aneel.gov.br/cedoc/rea20198452ti.pdf. Dispatch No. 1371. Available at: https://www2.aneel.gov.br/cedoc/dsp20221371ti.pdf. Resolution No. 12732. Available at: https://www2.aneel.gov.br/cedoc/rea202212732ti.pdf. Coromandel 2. Resolution No. 8453. Available at: https://www2.aneel.gov.br/cedoc/rea20198453ti.pdf. Dispatch No. 1371. Available at: https://www2.aneel.gov.br/cedoc/dsp20221371ti.pdf. Resolution No. 12733. Available at: https://www2.aneel.gov.br/cedoc/rea202212733ti.pdf.	 Dated 17/12/2019 Dated 26/05/2022 Dated 20/09/2022 Dated 17/12/2019 Dated 26/05/2022 Dated 20/09/2022	ANEEL Website
/34/	Electricity Regulatory Agency (ANEEL)	Commissioning dates (test operation) – ANEEL dispatches: Coromandel 1. No. 3520 dated 08/12/2022. Available at:	-	ANEEL Website

No.	Author	Title	References to the document	Provider
		http://www2.aneel.gov.br/cedoc/dsp20223520ti.pdf. Coromandel 2. No. 3516 dated 07/12/2022. Available at: http://www2.aneel.gov.br/cedoc/dsp20223516ti.pdf.		
/35/	Electricity Regulatory Agency (ANEEL)	Start date of operation – ANEEL dispatches: Coromandel 1. No. 3697 dated 27/12/2022. Available at: https://www2.aneel.gov.br/cedoc/dsp20223697ti.pdf. Coromandel 2. No. 3698 dated 27/12/2022. Available at: https://www2.aneel.gov.br/cedoc/dsp20223698ti.pdf.	-	ANEEL Website
/36/	PO	Authorization letter signed by PO.	14/11/2022	PO
/37/	Ministry of Environment	Federal Resolution CONAMA 001/86. Available at: http://www.ima.al.gov.br/wizard/docs/RESOLU%C3%87%C3%83O%20CONAMA%20N%C2%BA001.1986.pdf.	23/01/1986	Publicly available
/38/	Republic Federative of Brazil	Federal Law No. 6938. Available at: http://www.planalto.gov.br/ccivil_03/leis/l6938.htm#:~:text=LEI%20N%C2%BA%206.938%2C%20DE%2031%20DE%20AGOSTO%20DE%201981&text=Disp%C3%B5e%20sobre%20a%20Pol%C3%ADtica%20Nacional,aplica%C3%A7%C3%A3o%2C%20e%20d%C3%A1%20outras%20provid%C3%AAncias.	31/08/1981	Publicly available
/39/	Ministry of Environment	Federal Resolution CONAMA 237/1997. Available at: http://conama.mma.gov.br/?option=com_sisconama&task=arquivo.download&id=237.	19/12/1997	Publicly available
/40/	Secretary of State for Environment and Sustainable Development (SEMAD)	Normative Deliberation Copam no. 217.	06/12/2017	Publicly available
/41/	Electricity Regulatory Agency (ANEEL)	Geographical coordinates. Available at: https://sigel.aneel.gov.br/portal/apps/webappviewer/index.html?id=c1716d81d491426197bf497ace41db8d#. Screenshot from Sigel (Electricity Sector Geographic Information System).	Assessed on 21/09/2023	Publicly available
/42/	PO	Location of the project activity: kmz file.	Assessed on 21/09/2023	PO

No.	Author	Title	References to the document	Provider
/43/	National Electric System Operator (ONS)	Procedure for energy meter class: Sub- module 2.14 v2020.12 valid from 01/01/2021 onwards. Available at: http://apps08.ons.org.br/ONS.Sintegre.Proxy/ecmprsite/ecmfragmentsdocuments/Submódulo%202.14-RQ_2020.12.pdf. Procedure for calibration: Sub-module 6.16 v2020.12 valid from 01/01/2021 onwards. Available at: http://apps08.ons.org.br/ONS.Sintegre.Proxy/ecmprsite/ecmfragmentsdocuments/Submódulo%206.16-OP_2020.12.pdf.	08/12/2020	Publicly available
/44/	National Electric System Operator (ONS)	Web site available at http://www.ons.org.br.	Assessed on 21/09/2023	Publicly available
/45/	The Chamber of Electrical Energy Commercialization (CCEE)	Operator of Brazilian electric energy market web site, available at: https://www.ccee.org.br/.	Assessed on 21/09/2023	Publicly available
/46/	Electricity Regulatory Agency (ANEEL)	http://www.aneel.gov.br	Assessed on 21/09/2023	Publicly available
/47/	State Secretariat for Environment and Sustainable Development (SEMAD)	http://www.meioambiente.mg.gov.br.	Assessed on 21/09/2023	Publicly available
/48/	Ministry of Mines and Energy (MME)	https://www.gov.br/mme/pt-br	Assessed on 21/09/2023	Publicly available
/49/	Energy Research Company (EPE)	https://www.epe.gov.br/pt	Assessed on 21/09/2023	Publicly available
/50/	Electricity Regulatory Agency (ANEEL)	Manual of Power Sector Asset Control. Available at: https://git.aneel.gov.br/publico/centralconteudo/-/raw/main/manuaisminstrucoes/infoecofinanc/20220204_MCPSE_texto_definitivo_resol_674_2015.pdf.	Revision 2 of 11/08/2015	Publicly available
/51/	CDM	Clean Development Mechanism (CDM): https://cdm.unfccc.int/Projects/projsearch.html.	-	Publicly available
/52/	VCS	Verified Carbon Standard (VCS): https://registry.verra.org/app/search/VCS.	-	Publicly available

No.	Author	Title	References to the document	Provider
/53/	GS	Gold Standard (GS): https://registry.goldstandard.org/projects?q=animus&page=1.	-	Publicly available
/54/	ACR	American Carbon Registry (ACR): https://acr2.apx.com/myModule/rpt/myrpt.asp?r=111.	-	Publicly available
/55/	GCC	Global Carbon Council: https://projects.globalcarboncouncil.com.	-	Publicly available
/56/	Electricity Regulatory Agency (ANEEL)	ANEEL Normative Resolution 2894 – Distribution cost (TUSD). Available at: https://www2.aneel.gov.br/cedoc/reh20212894ti.pdf	13/07/2021	Publicly available
/57/	Brazilian Central Bank	Focus report – IPCA information. Available at: https://www.bcb.gov.br/publicacoes/focus/19112021	Assessed on 21/09/2023	Publicly available
/58/	PO	Land lease agreement.	11/03/2021	PO
/59/	Republic Federative of Brazil	Brazilian law 10,637 - PIS. Available at: https://www.planalto.gov.br/ccivil_03/leis/2002/l10637.htm#:~:text=Dispõe%20sobre%20a%20não%2Dcumulatividade,fiscais%2C%20a%20declaração%20de%20inaptidão; Brazilian law 10,833 – COFINS. Available at: https://www.planalto.gov.br/ccivil_03/leis/2003/l10.833.htm#:~:text=LEI%20No%2010.833%2C%20DE%2029%20DE%20DEZEMBRO%20DE%202003.&text=Altera%20a%20Legislação%20Tributária%20Federal%20e%20dá%20outras%20providências; Brazilian Normative Instruction SRFB 1,911. Available at: https://www.infoconsult.com.br/legislacao/instrucao_normativa_srf/2019/in_srfb_1911_2019.htm#art765.	30/12/2002 29/12/2003 11/10/2019	Publicly available
/60/	Republic Federative of Brazil	Brazilian law 8,541 – income tax. Available at: https://www.planalto.gov.br/ccivil_03/leis/l8541.htm	23/12/1992	Publicly available
/61/	Republic Federative of Brazil	Brazilian law 9,249. Available at: https://www.planalto.gov.br/ccivil_03/leis/l9249.htm#:~:text=Os%20rendimentos%20produzidos%20por%20aplicação,al%C3%ADquota%20de%20quinze%20por%20cento; Brazilian law 7,689. Available at: https://www.planalto.gov.br/ccivil_03/leis/L7689.htm.	26/12/1995 15/12/1988	Publicly available
/62/	Republic Federative of Brazil	Brazilian law 9,427/1996. Available at: http://www.planalto.gov.br/ccivil_03/Leis/L9427cons.htm	26/12/1996	Publicly available
/63/	PO	Agreement signed between Coromandel and the distribution company.	15/09/2020	PO
/64/	Republic Federative of Brazil	Brazilian law 8,987/1995. Available at: http://www.planalto.gov.br/ccivil_03/Leis/L8987cons.htm.	13/02/1995	Publicly available
/65/	Republic Federative of	Brazilian law 9,074/1995. Available at:	07/07/1995	Publicly available

No.	Author	Title	References to the document	Provider
	Brazil	http://www.planalto.gov.br/ccivil_03/Leis/L9074cons.htm.		
/66/	Republic Federative of Brazil	Brazilian law 9,648/1998. Available at: http://www.planalto.gov.br/ccivil_03/Leis/L9648cons.htm.	27/05/1995	Publicly available
/67/	Republic Federative of Brazil	Brazilian decree 5,081. Available at: https://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/decreto/d5081.htm.	14/05/2004	Publicly available
/68/	Electricity Regulatory Agency (ANEEL)	ANEEL Normative Resolution 957. Available at: https://www2.aneel.gov.br/cedoc/ren2021957.pdf.	07/12/2021	Publicly available
/69/	PO	Business plan: UFV Coromandel – Plano de Negócios.	30/09/2021	PO
/70/	PO	Power purchase agreements signed for the period of 15 years.	05/07/2021	PO
/71/	PO	Supplier agreement signed between PO and Longi Solar Technology CO., LTD for the supply of photovoltaic modules. Available at: Private Equipment Supply Agreement.pdf.	25/11/2021	PO
/72/	PO	Agreement for the supply of inverter + combiner box and inverter logistics.	29/12/2021	PO
/73/	PO	Agreement for the supply of trackers.	14/01/2022	
/74/	PO	EPC contract signed with Sindustrial Engenharia Ltda and Zopone Engenharia e Comércio Ltda for the construction of the solar power plant.	23/12/2021	PO
/75/	PO	EPC contract for substation and transmission lines construction.	14/12/2021	PO
/76/	PO	Agreement for equipment supply for substation and transmission lines construction.	17/09/2021	PO
/77/	PO	Agreement for MT cubicles supply.	17/11/2021	PO
/78/	PO	Agreement for hybrid modules supply.	16/09/2021	PO
/79/	PO	Agreement for electrical components.	17/09/2021	PO
/80/	PO	Agreement for TELECOM.	18/11/2021	PO
/81/	PO	Debentures issuance contract.	23/09/2022	PO
/82/	PO	Insurance policy of the proposed project.	20/01/2022	PO
/83/	PO	Balance sheet.	07/2023	PO
/84/	PO	GCC projects under validation: Solar Salgueiro; Solar Salgueiro II; Solar Salgueiro III and Conj. Jaíba. Available at: https://projects.globalcarboncouncil.com/project/1651	-	Publicly available
/85/	CDM	Registered CDM projects: • Assú V: https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/FWGXRNPHBCKDO6Y57AL8TZES2401IQ/view • Conj. Floresta: https://cdm.unfccc.int/ProgrammeOfActivities/cpa_db/QX39GUAOV176JY4BWTKZR205IMPFNE/view	-	Publicly available
/86/	The Chamber of Electrical	Publicly data of energy generation. Available at:	-	Publicly available

No.	Author	Title	References to the document	Provider
	Energy Commercialization (CCEE)	https://www.ccee.org.br/web/guest/dados-e-analises/dados-mercado-mensal		
/87/	The Chamber of Electrical Energy Commercialization (CCEE)	Consolidated result of the energy auctions. Available at: https://www.ccee.org.br/acervo-ccee?especie=38753&assunto=39056&keyword=consolidado&periodo=1825%20.	16/10/2023	Publicly available
/88/	Republic Federative of Brazil	Law 12305/2010 – National Solid Waste Policy. Available at: https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/lei/l12305.htm	02/08/2010	Publicly available
/89/	Republic Federative of Brazil	Consolidation of Labor Laws (CLT) Decree-Law No. 5.452. Available at: https://www.planalto.gov.br/ccivil_03/decreto-lei/del5452.htm	01/05/1943	Publicly available
/90/	KBS	Photographs oft he site and equipment.	31/05/2023	KBS

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

Table 1. CLs from this Project Verification

CL ID	01	**Section no.**	Section A	**Date:** 05/06/2023
Description of CL				
1. In section A.2 – Location of the Project Activity i. Further clarification should be provided regarding to the geographical coordinates reported in the PSF. ii. The identification of each power plant is not transparent in the map provided.				
Project Owner's response				**Date:** 24/08/2023
1. i. Geographical coordinates was taken from the documents RESOLUÇÃO AUTORIZATIVA Nº 8.452 and Nº 8.453, from December 17th, 2019. They are now mentioned in footnotes in PSF and provided in folder CL 01. ii. The identification of each power plant is now transparent in Section A.2, with new maps.				
Documentation provided by Project Owner				
1. i. Document "rea20198452ti - UFV Coromandel 1"and Document "rea20198453ti - UFV Coromandel 2 (1)" ii. NA. Information provided in PSF Version 2.0.				
GCC Project Verifier assessment				**Date:** 21/09/2023
1. In section A.2 – Location of the Project Activity i. Further clarification is provided regarding to the geographical coordinates reported in the revised PSF. This issue is **closed**. ii. The identification of each power plant is transparent in the map provided. This issue is **closed**. This CL is closed.				

CL ID	02	**Section no.**	Section B	**Date:** 05/06/2023
Description of CL				
1. In section B.5 – Demonstration of additionality: i. PO is requested to provide an implementation timeline of the project activity in order to clarify whether the contract for the purchase of solar modules and key components was available at the time of investment decision. ii. Kindly clarify why data in row no 122 has been divided by row no 13 while row no 82 i.e., interest payment has not been considered at all while arriving at IRR.				

iii. Sensitivity analysis – it is reported that a variation of +44% in the energy sale price is not considered a reasonable scenario once the investment analysis was made upon a conservative scenario. Clarify conservative scenario. Provide evidence to justify the same. In addition, it is not transparent whether the range of variations for expected energy generation and capex is reasonable in the project context. iv. A Common Practise analysis spreadsheet was not provided. v. Clarify the outcome "Considering the day of the investment decision" applied in step 2 of Common practice analysis.
Project Owner's response **Date:** 24/08/2023
1. i. The sponsors' decision to go ahead with Coromandel's project was taken when the Business Plan was presented to the partners and the decision was formalized (30/09/2021). Important obligations were assumed at that moment, which basically created a "point of no return" for the project. Nevertheless, there were other important milestones: - Signing of the PPA agreement: 05/07/2021. - Presentation of the updated Business Plan and approval of the project to the partners: 30/09/2021. - Signing of the modules supplier agreement: 25/11/2021. - Signing of the EPC-BOP solar PV project supplier agreement: 23/12/2021; This timeline was also included in PSF, Section B.5. ii. The spreadsheet has been adjusted and the information has been corrected. iii. The explanation was improved. iv. A Document with Common Practice analysis is now provided. v. As per the methodological tool the projects that have 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, are to be selected for consideration. The start date however resembles to start date definition of CDM/GCC project activity which is "the date on which the project participants commit to making expenditures for the construction or modification of the main equipment or facility (e.g., a photovoltaic modules), or for the provision or modification of a service (e.g., distribution of energy-efficient light bulbs, change of transport management system), for the CDM/GCC project activity or CPA. Where a contract is signed for such expenditures, it is the date on which the contract is signed. In other cases, it is the date on which such expenditures are incurred". In line with the definition of the CDM start date, the decision date of this project is 30/09/2021, with presentation of the Business Plan and approval of the project by all partners and shareholders.
Documentation provided by Project Owner
1 - iv. Document "Common Practice Analysis - Coromandel V2.0".
GCC Project Verifier assessment **Date:** 21/09/2023
1. In section B.5 – Demonstration of additionality: i. PO provided an implementation timeline of the project activity in order to clarify the time of investment decision. However, PO shall clarify the definition of the investment decision date since the Business Plan was only approved in 12/2021. This issue is **open**. ii. Interest payment has not been considered at all while arriving at IRR. This issue is **open**. iii. The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**. iv. A Common Practise analysis spreadsheet was provided. This issue is **closed**. v. The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**. This CL is **open**.
Project Owner's response **Date:** 28/09/2023
1 i. The definition of the investment decision is now clearly, and it is on Signing of the modules supplier agreement, on 25/11/2021. ii. Interest payment is being applied and data is presented in Line 81 of Spreadsheet.
Documentation provided by Project Owner
1 i. Document "Private Equipment Supply Agreeement". ii. Document "Coromandel_Plan_v3.0".
GCC Project Verifier assessment **Date:** 05/10/2023

1. In section B.5 – Demonstration of additionality: i. The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**. ii. Interest payment has been considered at all while arriving at IRR. This issue is **closed**. iii. (Open during T&C) The project owner has selected Internal Rate of Return (post-tax Project IRR) as financial indicator for investment analysis. However, as per IRR spreadsheet, an Equity IRR has been calculated. PO shall clarify. This issue is **open**. This CL is **open**.
Project Owner's response **Date:** 12/12/2023
The IRR Spreadsheet presents an equity IRR calculation and the results were also inserted into the PSF. Both documents are now transparent and have the same values.
Documentation provided by Project Owner
NA
GCC Project Verifier assessment **Date:** 18/12/2023
1. In section B.5 – Demonstration of additionality: iii. (Open during T&C) Project owner revised the benchmark determination and has selected Internal Rate of Return (post-tax Equity IRR) as financial indicator for investment analysis. This issue is **closed**. This CL is **closed**.

CL ID	03	**Section no.**	Section B.6.3	**Date:** 05/06/2023
Description of CL				
The quantity of net electricity generation supplied by the project should be clarified considering the load factor of 31% considered as per evidence provided.				
Project Owner's response				**Date:** 24/08/2023
The quantity of net electricity generation supplied is an average considering values for 20 years (Long Term). The performance ratio (%) and load factor of 28.6 % (now updated considering the values of P90, as IRR Spreadsheet) are also projected in the same terms. Evidence is presented in Tab "P Table Summary" and "Eval Per Unc & P Tables" of the document "~$MERCURY_Coromandel_202108_EPE_Summary_Bifi_20210914".				
Documentation provided by Project Owner				
Document "~$MERCURY_Coromandel_202108_EPE_Summary_Bifi_20210914". Tab "P Table Summary" and "Eval Per Unc & P Tables".				
GCC Project Verifier assessment				**Date:** 21/09/2023
The quantity of net electricity generation supplied by the project was clarified and PSF was correctly revised. This CL is **closed**.				

CL ID	04	**Section no.**	Section D	**Date:** 05/06/2023
Description of CL				
Evidence of laws and regulations CONAMA 001/86 and CONAMA Resolution 237/297 and Normative Deliberation Copam – no. 217 should be provided.				
Project Owner's response				**Date:** 24/08/2023
Evidence of laws and regulations CONAMA 001/86, CONAMA Resolution 237/297 and Normative Deliberation Copam – no. 217 is now provided in footnotes with references.				
Documentation provided by Project Owner				
• "conama 237 -1997" • "conama-23.01.86" • "deliberacao_normativa_n217"				
GCC Project Verifier assessment				**Date:** 21/09/2023
Evidence of laws and regulations CONAMA 001/86 and CONAMA Resolution 237/297 and Normative Deliberation Copam – no. 217 was provided. This CL is **closed.**				

CL ID	05	**Section no.**	Section F	**Date:** 05/06/2023
Description of CL				

1. Goal 1. End poverty in all its forms everywhere: Provide evidence to justify the SDG Target.
2. Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all: It is stated that "By 2023, increase substantially the share of renewable energy in the global energy mix by the utilization of biomass as a renewable energy source. Further clarification should be provided regarding to the use of biomass as renewable energy source.
3. Goal 8. Promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all: Provide evidence to justify the SDG Target.
4. For SDG 1 and 8 same parameter is considered to measure the impact of both goals. Clarify.
5. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation: Further clarification should be provided regarding to the contribution of project level actions to SDG Target 9.4.
6. Goal 10. Reduce inequality within and among countries: Provide evidence to justify the SDG Target.
7. Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable: Further clarification should be provided regarding to the contribution of project level actions to SDG Target 11.6.

Project Owner's response | **Date:** 24/08/2023

1. An internal analysis was carried out and Target 1.1 is not applicable, therefore, was removed from the project.
2. The sentence 'Use of biomass as renewable energy source' was a mistake and is now adjusted in Version 2.0 of PSF.
3. The project activity makes a positive contribution to SDG 8 by offering job opportunities throughout the implementation and operation of the project, according with all regulations in Brazil, which protect labor rights. Evidence of the list of employees and national regulation has been provided.
4. An internal analysis was carried out and SDG 1 was removed from the project.
5. The project contributes to SDG 9 and Target 9.4 in its operation, providing clean energy to the grid. The project delivers renewable energy to the population, increasing the consumption of clean energy, achieving the SDG target and indicator 9.4.1. The amount of CO2 emission per MWh will be monitored.
6. An internal analysis was carried out and Target 10.4 is not applicable, therefore, was removed from the project.
7. An internal analysis was carried out and Target 11.6 is not applicable, therefore, was removed from the project.

Documentation provided by Project Owner

Documents:

- "Efetivo Atual ASSINADO DS".
- "List of Service Providers ASSINADO DS".
- "NFS-E 10 - SUPERMERCADOS BH"

GCC Project Verifier assessment | **Date:** 21/09/2023

1. Goal 1. End poverty in all its forms everywhere: This SDG was removed from the project. This issue is **closed.**
2. Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all: The description of the UN-level target was revised. However, the same monitoring parameter is considered to measure the impact of goals 9 and 13. Clarify. This issue is **open.**
3. Goal 8. Promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all: Evidence to justify the SDG Target was provided. This issue is **closed**.
4. SDG 1 was removed from the project. This issue is **closed.**
5. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation: Further clarification was provided regarding to the contribution of project level actions to SDG Target 9.4. However, the same monitoring parameter is considered to measure the impact of goals 7 and 13. Clarify. This issue is **open.**
6. Goal 10. Reduce inequality within and among countries: This SDG was removed from the project. This

issue is **closed.** 7. Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable: This SDG was removed from the project. This issue is **closed.** This CL is **open**.
Project Owner's response **Date:** 28/09/2023
2. The parameter to demonstrate the contribution of the project to SDG 07 was kept, and the monitoring parameter of SDG 9 and 13 were corrected. (Parameter SDG 07: Monitoring the amount of energy provided to the grid annually). 5. An internal analysis was carried out and Target 9.4 is not applicable, therefore, SDG 9 was removed from the project. SDG 10 was reincluded in the project as the P.O provided evidence to justify.
Documentation provided by Project Owner
5. Documents "NFS-E 10 - SUPERMERCADOS BH" and "List of Service Providers ASSINADO DS".
GCC Project Verifier assessment **Date:** 03/10/2023
2. Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all: The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed.** 5. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation: This SDG was removed from the project. This issue is **closed**. Goal 10. Reduce inequality within and among countries: This SDG was correctly included in the revised PSF. This issue is **closed**. This CL is **closed**.

Table 2. CARs from this Project Verification

CAR ID	01	**Section no.**	Section A	**Date:** 05/06/2023
Description of CAR				
1. On Cover page- BASIC INFORMATION i. Identified inconsistency in the project type between section 'eligible GCC project type as per the Project Standard' and section 'declaration by the authorized project owner and local point'. ii. Identified inconsistency in the GCC rules and requirements checked under 'Applicable rules and requirements for project owners'. 2. In section A.1 – Description of the Project Activity i. The definition of the start of the physical implementation of the project activity is not transparent. ii. The total area reported is not according to information provided during the on-site visit. 3. In section A.3 -Technologies/measures i. No information regarding age and average lifetime of the equipment based on the manufacturer's specifications and industry standards was provided in the PSF. Provide evidence to justify the same. ii. Table 4 – Information about inverter rated capacity, transformers are not transparent. Moreover, identified inconsistency in inverter model between nameplate checked during on-site visit and information reported in the PSF. 4. In section A.4 – Project Owner(s) i. Information reported in this section for "Project Owner(s)" is not following the "Instructions for completing the project submission form". 5. In section A.5 – Declaration of intended use of Approved Carbon Credits (ACCs) generated by the Project Activity i. Information reported under "Period" is not according to paragraph 6 (c) of Clarification no. 5. 6. In section A.6 – Additional requirements for CORSIA i. Information reported in this section is not following the "Instructions for completing the project submission form".				
Project Owner's response				**Date:** 24/08/2023
1.i. Inconsistency was corrected. Project is Type A3. ii. Inconsistency was corrected. Clarification 5 and TOOL 05 were included. 2.i. The definition of the start of the physical implementation of the project activity is now transparent. The date is December 28th, 2022. ii. The information about total area reported was removed from PSF.				

3.i. Evidence with information regarding age and average lifetime of the equipment based on the manufacturer's specifications and industry standards is now provided with documents. ii. Table 4 has been corrected and now has accurate data. 4.i. All the Project Owners were included, and information now follows the "Instructions for completing the project submission form". 5.i. Crediting period was defined according the expect date to the project registration in GCC, according to Clarification No. 05- paragraph 6 - (c)" The start date of crediting period shall be after the registration with the GCC Program", and to paragraph 6.4.4 of GCC Project Standard. This date may change according to the registration process. 6.i. Information was included and now follows the "Instructions for completing the project submission form".
Documentation provided by Project Owner
2.ii Documents "CIT_26.179" and "CIT_34439", 3.i. Documents 'Private Equipment Supply Agreeement' – Page 29, and "MCPSE ANEEL 2015". 5.i. https://www.globalcarboncouncil.com/wp-content/uploads/2022/06/Clarification-No.05-v1.pdf https://www.globalcarboncouncil.com/wp-content/uploads/2021/10/Project-Standard-v3.1.pdf
GCC Project Verifier assessment **Date:** 21/09/2023
1. On Cover page- BASIC INFORMATION i. Information in the project type is consistent between section 'eligible GCC project type as per the Project Standard' and section 'declaration by the authorized project owner and local point'. This issue is **closed.** ii. The GCC rules and requirements checked under 'Applicable rules and requirements for project owners' were correctly revised. This issue is **closed.** 2. In section A.1 – Description of the Project Activity i. The definition of the start of the physical implementation of the project activity is transparent in the revised PSF. This issue is **closed.** ii. Information about total area was removed from the revised PSF. This issue is **closed.** 3. In section A.3 -Technologies/measures i. Information regarding age and average lifetime of the equipment based on the manufacturer's specifications and industry standards was provided in the PSF. Evidences were provided and checked. This issue is **closed.** ii. Table 4 (updated to table 5) – Information about inverter rated capacity, transformers are transparent. Moreover, inverter model is as per nameplate checked during on-site visit. This issue is **closed.** 4. In section A.4 – Project Owner(s) i. Information reported in this section for "Project Owner(s)" is following the "Instructions for completing the project submission form". This issue is **closed**. 5. In section A.5 – Declaration of intended use of Approved Carbon Credits (ACCs) generated by the Project Activity i. Information reported under "Period" is according to paragraph 6 (c) of Clarification no. 5. This issue is **closed.** 6. In section A.6 – Additional requirements for CORSIA i. Information reported in this section is following the "Instructions for completing the project submission form". This issue is **closed.** This CAR is **closed**.

CAR ID	02	**Section no.**	Section B	**Date:** 09/06/2023
Description of CAR				
1. In section B.1 – Reference to methodology(ies) i. Identified inconsistency regarding to the methodology tools reported between methodology ACM0002 and section B.1 of PSF. 2. In section B.2 – Applicability of methodology(ies) i. PSF is not transparent in the applicability conditions of ACM0002 version 21.0. ii. PSF is not transparent in the applicability of tools. PO is requested to justify the choice of selected tools. 3. In section B.4 – Establishment and description of the baseline scenario				

i. PO shall clearly describe the baseline scenario of the project in line with the applied methodology and para 63-65 of CDM Project Standard.
ii. The sources used to determine and calculate the operating, build and combined margin emission factors are not transparent.

4. In section B.5 – Demonstration of additionality

i. In line with paragraph 45 of the Project Standard, GCC project activities are required to undergo the two tests to demonstrate additionality. However, the two steps are not presented in a transparent manner in the PSF.
ii. The link provided in footnote 20 is not working.
iii. Input values are not listed in the PSF with clear references as per the "Instructions for completing the project submission form".
iv. It is not clearly described if projects registered or submitted for registration or undergoing validation under GS or GCC program were considered in the analysis of step 3 of Common practice analysis. In addition, the reference of the listed projects is not transparent.

5. In section B.6.1 – Explanation of methodological choices

i. The description of the calculation of the grid emission factor is not transparent as per steps identified in TOOL07.

6. In section B.6.2 – Data and parameters fixed ex ante

i. Information reported in "Data unit" is inconsistent with value reported in "Value(s) of monitored parameter".

7. In section B.7.1 – Data and parameters to be monitored

i. Data / Parameter $EG_{facility,y}$: Information reported in "Measurement/Monitoring equipment" is not following the "Instructions for completing the project submission form". Identified inconsistency in the information included under "Data unit", "QA/QC procedures" and "Measuring/reading/recording frequency" between PSF and TOOL05.
ii. Data / parameter $EG_{grid,CM,y}$: Information reported in "Measurement/Monitoring equipment" should be clarified.
iii. Data / parameter $EG_{grid,OM,y}$: Information reported in "Measurement/Monitoring equipment" should be clarified.
iv. Data / parameter $EG_{grid,BM,y}$: Information reported in "Measurement/Monitoring equipment" should be clarified.
v. Information reported under 'For parameters to be monitored for E+/S+ assessments and SDGs labels (positive impacts)' is not following the "Instructions for completing the project submission form".

8. In section B.7.4 – Other elements of the monitoring plan

i. Information regarding to operational and management structure for monitoring, provisions for data archiving, and responsibilities and institutional arrangements for data collection and archiving is not transparent in the PSF.

Project Owner's response	**Date:** 24/08/2023

1.i. References of the applied methodology and all tools are now included in Section B.1 and B.2.
2.i. Section B.2 was updated (text and tables) and PSF is now transparent in the applicability conditions of ACM0002 version 21.0.
ii.. A column was included in the table of 'Reference Tools' and now shows the applicability of tools.
3.i. The baseline scenario of the project in line with the applied methodology and para 63-65 of CDM Project Standard is now described in Section B.4.
ii. The sources used to determine and calculate the operating, build and combined margin emission factors are now clarified in Section B.4.
4.i. The two tests to demonstrate additionality are now included in Section B.5 in a transparent manner.
ii. Link with TOOL 01 was corrected and is now working.
iii. Input values are now listed in the PSF with clear references as per the "Instructions for completing the project submission form".
iv. Projects registered or submitted for registration or undergoing validation under VCS, ACS, GS and GCC program were considered in the analysis of step 3 of Common practice analysis. The reference for the listed projects is now provided in a Common Practice Spreadsheet.

5. The description of the calculation of the grid emission factor was included in Section B.6.1. and is now transparent as per Steps of TOOL07.
6. Information reported in “Data unit” is now consistent with value reported in “Value(s) of monitored parameter”. The value is fraction, therefore 0.25 and 0.75.
7.i. Information of Data / Parameter EGfacility,y is now consistent with “Instructions for completing the project submission form”.
ii. Table of general information of Data / Parameter EGgrid,CM,y was updated and clarified.
iii. Table of general information of Data / Parameter EGgrid,OM,y was updated and clarified.
iv. Table of general information of Data / Parameter EGgrid,BM,y was updated and clarified.
v. Information reported under ‘For parameters to be monitored for E+/S+ assessments and SDGs labels (positive impacts)’ is now following the “Instructions for completing the project submission form”.
8. A detailed monitoring plan has been included in section B.7.4, including an outline of the responsibilities of project owners.

Documentation provided by Project Owner

4. iv. Document “Common Practice Analysis - Coromandel V2.0”.
7.i. Document “Certificado Calibração (1)”.
v. Folders E+ and S+

GCC Project Verifier assessment | **Date:** 21/09/2023

1. In section B.1 – Reference to methodology(ies)
   i. The methodology tools reported were corrected in section B.1 of the revised PSF. However, GCC Clarification No. 1, GCC Clarification No. 5 and GCC Standard on Double Accounting were not included. This issue is **open**.
2. In section B.2 – Applicability of methodology(ies)
   i. PSF is transparent in the applicability conditions of ACM0002 version 21.0. However, PSF does not refer to any documentation that has been used in order to confirm each one. This issue is **open**.
   ii. PSF is not transparent in the applicability of tools. PO is requested to justify the choice of selected tools and refers to any documentation that has been used in the justification as per paragraph 19 of the “Instructions for completing the project submission form”. This issue is **open**.
3. In section B.4 – Establishment and description of the baseline scenario
   i. PO clearly described the baseline scenario of the project in line with the applied methodology and para 63-65 of CDM Project Standard. This issue is **closed**.
   ii. The sources used to determine and calculate the operating, build and combined margin emission factors are clearly described in the revised PSF. This issue is **closed**.
4. In section B.5 – Demonstration of additionality
   i. In line with paragraph 45 of the Project Standard, GCC project activities are required to undergo the two tests to demonstrate additionality. The two steps are presented in a transparent manner in the PSF. This issue is **closed**.
   ii. The link was updated and is working. This issue is **closed**.
   iii. Input values are listed in the PSF with clear references as per the “Instructions for completing the project submission form”. This issue is **closed**.
   iv. It is clearly described if projects registered or submitted for registration or undergoing validation under GS or GCC program were considered in the analysis of step 3 of Common practice analysis. This issue is **closed**.
5. In section B.6.1 – Explanation of methodological choices
   i. The description of the calculation of the grid emission factor is transparent as per steps identified in TOOL07. This issue is **closed**.
6. In section B.6.2 – Data and parameters fixed ex ante
   i. Information reported in “Data unit” is consistent with value reported in “Value(s) of monitored parameter”. This issue is **closed**.
7. In section B.7.1 – Data and parameters to be monitored
   i. Data / Parameter $EG_{facility,y}$:

a. Information reported in “Measurement/Monitoring equipment” is not following the “Instructions for completing the project submission form”. Information about validity of calibration is not transparent. This issue is **open**.
b. Information included under “Data unit” and “Measuring/reading/recording frequency” are according to TOOL05. This issue is **closed**.
c. Information included under “QA/QC procedures” is only a copy of TOOL05. This issue is **open**.
d. Information included under “Methodology reference” is not as per ACM0002 version 21.0. This issue is **open**.

ii. Data / parameter $EG_{grid,CM,y}$: Information reported in “Measurement/Monitoring equipment” was clarified. This issue is **closed**.
iii. Data / parameter $EG_{grid,OM,y}$: Information reported in “Measurement/Monitoring equipment” was clarified. This issue is **closed**.
iv. Data / parameter $EG_{grid,BM,y}$: Information reported in “Measurement/Monitoring equipment” was clarified. This issue is **closed**.
v. Information reported under ‘For parameters to be monitored for E+/S+ assessments and SDGs labels (positive impacts)’ is not following the “Instructions for completing the project submission form”. Moreover, the following issues were identified:
a. Parameter Replacing fossil fuel with renewable sources of energy: Information reported under “Parameter to be monitored” and “QA/QC” is not according to information provided in section E.1 of PSF. This issue is **open**.
b. Parameter Sources of income generation increased / reduced: PO shall clarify the relation between this impact and SDGs 1 and 8. This issue is **open**.
c. Parameter Reducing / increasing accidents / incidents / fatality: Information reported under “Purpose” is not according to information provided in section E.1 of PSF. PO shall clarify the relation between this impact and SDG 8. This issue is **open**.
d. Parameter Increased or / deteriorating municipal revenues: Information reported under “Data / Parameter” is not according to information provided in section E.1 of PSF. This issue is **open**.

8. In section B.7.4 – Other elements of the monitoring plan
i. Information regarding to operational and management structure for monitoring, provisions for data archiving, and responsibilities and institutional arrangements for data collection and archiving is transparent in the revised PSF. This issue is **closed**.

9. (Open during the 2nd round) In section B.7.2 – Data and parameters to be monitored for E+/S+ assessments (negative impacts)
i. Information reported is not following the “Instructions for completing the project submission form”. This issue is **open.**

This CAR is **open**.

Project Owner’s response	**Date:** 28/09/2023

1 i. GCC Clarification No. 1, GCC Clarification No. 5 and GCC Standard on Double Accounting are now mentioned in Section B.1.
2 i. Reference to the methodology is now included in Section B.2 with a footnote. Also, Table 8 explains the detailed applicability following the itens 4 to 10 of “2.2 Applicability” of the referenced document.
ii. References to the tools are now included in Section B.2 with footnotes. In Table 9 is explained why each tool is used. Follows:

- TOOL 01 - As per paragraph 32 of the methodology used by the project activity, the additionality of the project activity shall be demonstrated and assessed using TOOL 01. So, is used to demonstrate additionality of the project.
- TOOL 05 - According to paragraph 73 of the Methodology ACM0002 V.21, the monitoring provisions should apply TOOL 5 in order to calculate EGfacility,y. So, the TOOL 05 is used in order to consistent monitor and determine the quantity of electricity generated and supplied to the grid.
- TOOL 07 - 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.
- TOOL 24 - The project activity applies the TOOL 01 “Tool for the demonstration and assessment of additionality, therefore, TOOL 24 is applicable to project activities (inherent to TOOL 01).

- TOOL 27 - The project activity applies the TOOL 01 “Tool for the demonstration and assessment of additionality, therefore, TOOL 27 is applicable to project activities (inherent to TOOL 01).

7 i. a. Information reported in “Measurement/Monitoring equipment” is now following the “Instructions for completing the project submission form”. Information about validity of calibration is now transparent according Item 1.1.2 of the document “Manutenção do Sistema de Medição para Faturamento” https://apps08.ons.org.br/ONS.Sintegre.Proxy/ecmprsite/ecmfragmentsdocuments/Submódulo%206.16-OP_2020.12.pdf .
c. Information included under “QA/QC procedures.
d. The methodology is now referenced in footnote.
7 v. a. Information reported under “Parameter to be monitored” and “QA/QC” is now according to information provided in section E.1 :
b. The relation between the parameter and SDG 01 was removed, as SDG 01 is no longer included in the project. Information that supports its relationship with SDG 8 was included in the table.
c. Information reported under “Purpose” is now according to information provided in section E.1 of PSF. The relation of the impact with SDG 08 was removed from the table.
d. The parameter was corrected and is now according to information provided in section E.1 of PSF.
9. i. Information reported is now following the “Instructions for completing the project submission form”, as the last line of the table was corrected.

Documentation provided by Project Owner

2 i . https://cdm.unfccc.int/UserManagement/FileStorage/ZPFJL01OU2RYC6N3HASIXV7K84QBG9

7 i a. Document “Manutenção do Sistema de Medição para Faturamento” https://apps08.ons.org.br/ONS.Sintegre.Proxy/ecmprsite/ecmfragmentsdocuments/Submódulo%206.16-OP_2020.12.pdf .

GCC Project Verifier assessment | **Date:** 03/10/2023

1. In section B.1 – Reference to methodology(ies)

i. Section B.1 of PSF was correctly revised. This issue is **closed**.

2. In section B.2 – Applicability of methodology(ies)

i. The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**.
ii. The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**.

7. In section B.7.1 – Data and parameters to be monitored

i. Data / Parameter $EG_{facility,y}$:
a. PSF was revised and information about validity of calibration is transparently reported in “Measurement/Monitoring equipment”. This issue is **closed**.
c. Information included under “QA/QC procedures” is as per TOOL05. This issue is **closed**.
d. Information included under “Methodology reference” is not as per ACM0002 version 21.0. This issue is **closed**.

v. Information reported under ‘For parameters to be monitored for E+/S+ assessments and SDGs labels (positive impacts)’ is following the “Instructions for completing the project submission form”.
a. Parameter Replacing fossil fuel with renewable sources of energy: Information reported under “Parameter to be monitored” and “QA/QC” is according to information provided in section E.1 of revised PSF. This issue is **closed**.
b. Parameter Sources of income generation increased / reduced: The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**.
c. Parameter Reducing / increasing accidents / incidents / fatality: The response sent by PO is accepted and addressed in the revised PSF. This issue is **closed**.
d. Parameter Increased or / deteriorating municipal revenues: Information reported under “Data / Parameter” is according to information provided in section E.1 of PSF. This issue is **closed**.

9. (Open during the 2nd round) In section B.7.2 – Data and parameters to be monitored for E+/S+ assessments (negative impacts)

i. Information reported is following the “Instructions for completing the project submission form”. This issue is **closed.**

This CAR is **closed**.

CAR ID	03	Section no.	Section C	Date: 05/06/2023
Description of CAR				
1. In section C.1 – Start date of the Project Activity: i. Identified inconsistency between the date reported in PSF and first dispatch for power generation issued by ANEEL. 2. In section C.3.1 – Start and end date of the crediting period: i. Crediting period is not defined as per paragraph 6.4.4 of GCC Project Standard.				
Project Owner's response				**Date:** 24/08/2023
1.i. The date of first dispatch for power generation issued by ANEEL is 28/12/2022. Inconsistency is now corrected along PSF Version 2.0. 2.i. Crediting period was defined according the expect date to the project registration in GCC, according to Clarification No. 05- paragraph 6 - (c)" The start date of crediting period shall be after the registration with the GCC Program", and to paragraph 6.4.4 of GCC Project Standard. This date may change according to the registration process.				
Documentation provided by Project Owner				
1.i. Documents "dsp20223697ti" and "dsp20223698ti". 2. i. https://www.globalcarboncouncil.com/wp-content/uploads/2022/06/Clarification-No.05-v1.pdf https://www.globalcarboncouncil.com/wp-content/uploads/2021/10/Project-Standard-v3.1.pdf				
GCC Project Verifier assessment				**Date:** 21/09/2023
1. In section C.1 – Start date of the Project Activity: i. The date reported in revised PSF is consistent with the first dispatch for power generation issued by ANEEL. This issue is **closed**. 2. In section C.3.1 – Start and end date of the crediting period: i. Crediting period is defined as per paragraph 6.4.4 of GCC Project Standard. This issue is **closed**. This CAR is **closed.**				

CAR ID	04	Section no.	Section E	Date: 05/06/2023
Description of CAR				
The project didn't conduct assessment and reporting of the minimum potential aspects which are identified for solar type projects as per Appendix 01 of the Environment and Social Safeguards Standard.				
Project Owner's response				**Date:** 24/08/2023
The project is now conducting assessment and reporting the minimum potential aspects which are identified for solar type projects as per Appendix 01 of the Environment and Social Safeguards Standard.				
Documentation provided by Project Owner				
NA. Information provided in PSF Version 2.0.				
GCC Project Verifier assessment				**Date:** 21/09/2023
The project conducted assessment and reporting of the minimum potential aspects which are identified for solar type projects as per Appendix 01 of the Environment and Social Safeguards Standard. However, the following issues were identified: 1. Social safeguards: i. Social Jobs – Sources of income generation increased / reduced: the frequency of monitoring is not transparent. This issue is **open**. ii. Social – health & safety – Reducing / increasing accidents / incidents / fatality: the frequency of monitoring is not transparent. This issue is **open**. This CAR is **open**.				
Project Owner's response				**Date:** 28/09/2023
1 . Frequency of monitoring is now included in B.7.1 and Section E (Annually). ii. Frequency of monitoring is now included in B.7.1 and Section E (Annually).				
Documentation provided by Project Owner				
NA				
GCC Project Verifier assessment				**Date:** 03/10/2023
The project conducted assessment and reporting of the minimum potential aspects which are identified for solar type projects as per Appendix 01 of the Environment and Social Safeguards Standard. However, the				

following issues were identified:

2. Social safeguards:
   iii. Social Jobs – Sources of income generation increased / reduced: the frequency of monitoring is transparent in the revised PSF. This issue is **closed**.
   iv. Social – health & safety – Reducing / increasing accidents / incidents / fatality: the frequency of monitoring is transparent in the revised PSF. This issue is **closed**.

This CAR is **closed**.

CAR ID	05	**Section no.**	Section G	**Date:** 05/06/2023
Description of CAR				
Identified inconsistency between the listed stakeholders in section G.1 of PSF and evidences provided.				
Project Owner's response				**Date:** 24/08/2023
The list of stakeholders in section G.1 was updated and is now transparent with evidences provided.				
Documentation provided by Project Owner				
Documents: • Lista de stakeholders • Formulário de Presença do Projeto Coromandel Renewable Energy Project (1). • E-mail - [COROMANDEL] Coromandel Renewable Energy Project – Apresentação. • E-mail - LSC - Coromandel Renewable Energy Project.				
GCC Project Verifier assessment				**Date:** 21/09/2023
The listed stakeholders in section G.1 of revised PSF is according to evidences provided. This CAR is **closed**.				

CAR ID	06	**Section no.**	H	**Date:** 05/06/2023
Description of CAR				
Under section H of project submission form, PO shall mention details as per the GCC template guidelines or mention Not applicable.				
Project Owner's response				**Date:** 24/08/2023
Section H was updated according to the project specifications.				
Documentation provided by Project Owner				
NA. Information provided in PSF Version 2.0.				
GCC Project Verifier assessment				**Date:** 21/09/2023
The response sent by PO is accepted and addressed in the revised PSF. This CAR is **closed**.				

CAR ID	07	**Section no.**	Miscellaneous	**Date:** 05/06/2023
Description of CAR				
1. Number format - Kindly use international form of representation of values, replacing comma with dot. 2. Date format – Kindly use in format of dd/mm/yyyy. 3. Identified inconsistency in the numbering of figures and tables along the document. 4. Cover page - Kindly remove instructions after filling. 5. Kindly use subscript in the formulas and parameters in whole document.				
Project Owner's response				**Date:** 24/08/2023
1. Number formats were fixed along PSF. 2. Date formats were fixed along PSF. 3. Numbering of figures and tables were fixed along PSF. 4. Instructions were removed from the Cover Page. 5. Subscript in the formulas and parameters were included in whole document.				
Documentation provided by Project Owner				
NA. Information provided in PSF Version 2.0.				
GCC Project Verifier assessment				**Date:** 21/09/2023
1. Number format - Kindly use international form of representation of values, replacing comma with dot. This issue is **closed**.				

2. Date format – Kindly use in format of dd/mm/yyyy. This issue is **closed**. 3. Identified inconsistency in the numbering of figures and tables along the document. This issue is **open**. 4. Cover page - Kindly remove instructions after filling. This issue is **closed**. 5. Kindly use subscript in the formulas and parameters in whole document. This issue is **open**. This CAR is **open**.
Project Owner's response **Date:** 28/09/2023
3.Inconsistencies in the numbering of figures and tables along the document were corrected.
Documentation provided by Project Owner
GCC Project Verifier assessment **Date:** 03/10/2023
The numbering of figures and tables were correctly revised along the document. This CAR is **closed**.

Table 3. FARs from this Project Verification

FAR ID	01	**Section no.**		**Date:** 05/06/2023
Description of FAR				
Host country authorization must be provided and verified for the first or subsequent verification.				
Project Owner's response				**Date:** 24/08/2023
Document will be provided during project verification.				
Documentation provided by Project Owner				
NA.				
GCC Project Verifier assessment				**Date:** 21/09/2023
PO shall provide the HCL and monitor the actual counting, whether single or doubling during issuance stage.				

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: o Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); o 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[7];
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

[7]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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