



Verification and certification report form for GS project activities

VERIFICATION AND CERTIFICATION REPORT

Title of the project activity	CEMEL HYDRO BUNDLE
GS Reference number of the project activity	1208
Version number of the verification and certification report	3.0Aa
Completion date of the verification and certification report	28/03/2025
Monitoring period number and duration of this monitoring period	4 th Monitoring Period of 1 st Crediting Period 01/08/2021 – 30/06/2022 (both days included)
Version number of monitoring report to which this report applies	Version 04 of 24/02/2025
Crediting period of the project activity corresponding to this monitoring period	01/07/2015 – 30/06/2022 (First CP)
Project participant(s)	HGG Enerji Üretim A.Ş. (Project Owner)
Host Party	Türkiye
Sectoral scope(s), selected methodology(ies)	Sectoral scope 1: Energy Industries (Renewable-/non-renewable sources) ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources - Version 12.3.0
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the revised registered PDD	36,609 tCO ₂ (GS-VERs)
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	18,183 tCO ₂ (GS-VERs)
Name of VVB	RINA Services S.p.A. (RINA)
Name, position and signature of the approver of the verification and certification report	<i>Laura Severino</i> Laura Severino (Authorized officer signing for the VVB) Decarb & Chain of Custody Product Management

SECTION A. Executive summary

Purpose and general description of the project

This is the 1st crediting period which is started on 01/07/2015 and this bundled project is composed of 6.567 MWe Cemel I HEPP, 7.055 MWe Cemel II HEPP and 6.4 MWe Cemel III HEPP on the mid-section of Kızılırmak River basin as confirmed through the electricity generation license /12/. The generated electricity is fed to the Türkiye national grid. The project has a capacity of 21.6 MWm and 20.4 MWe and an expected production of 73.95 GWh. The annual emission reductions are estimated to be 40,006 tCO₂ per year as confirmed through the revised registered PDD /1/ and validation report /2/.

Project includes an impoundment type weir and will cause limited land use since there exist no conveyance line and penstock is built at the bottom of the weir. There exist several Dams (Hirfanlı, Yamula, Bayramhacılı and Sarıhıdır) on the upstream and downstream of the project. The purpose of this project is to generate electricity by using the existing water without constructing any reservoir. The project type is run-of-river type project. This bundled project is composed of 6.567 MWe Cemel I HEPP, 7.055 MWe Cemel II HEPP and 6.4 MWe Cemel III HEPP on the mid-section of Kızılırmak River basin. The project type is hydro which is an eligible project type as it is in accordance with Eligible Project Types & Scope under Renewable Energy Activity Requirements. The project is located in Türkiye. Türkiye is upper middle income economy where the penetration level of the proposed Renewable Energy Technology type is less than %5 of the total grid installed capacity, at the time of the first submission to Gold Standard (eligibility clause will come into effect from 24 Jan 2020). The project activity aims to reduce the greenhouse gas emissions in Türkiye by replacing fossil fuel power generation and contributing to the development of the solar energy sector in Türkiye, as well as aims to support the local economy by creating local employment and providing equipment locally.

The GHG benefit of the project activity was only accounted under Gold Standard. There are not any other RECs such as VERRA, GCC or Social Carbon were being issued for the project activity. Furthermore, as a host country in Türkiye such any programme like a government-regulated system or programme for the constraint and monetisation of GHG emissions (such as emissions trading scheme, cap and trade or carbon tax mechanisms) has not been implemented.

Location

Project site is located in Avanos District, Nevşehir Province 2 km away from the nearest village of Aladdin. Project site is accessible from main road following a 3 km route to Cemel I, 8.5 km to Cemel II and 5.5 km to Cemel III.

Scope of verification

Verification is the periodic independent review and ex-post determination by a VVB of the monitored reductions in GHG emissions that have occurred as a result of the registered GS project activity during a defined monitoring period. Certification is the written assurance by a VVB that, during a specific period in time, a project activity achieved the emission reductions as verified. The objective of this verification is to verify and certify emission reductions reported for the CEMEL HYDRO BUNDLE for the period 01/08/2021 – 30/06/2022.

The scope of the verification is to verify that:

- The project activity has been implemented and operated in accordance with the revised registered PDD or any approved revised PDD /1/;
- The monitoring plan, including compliance with any guidance provided by the Board regarding deviations from the provisions of a registered plan and/or methodology;
- The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed.

The verification shall ensure that reported emission reductions are complete and accurate in order to be certified.

Verification process

Verification is conducted using RINA procedures in line with the GS requirements and requirements specified in the CDM Validation and Verification Standard available at the time of the verification starts and applying standard auditing techniques. RINA assess and determines that the implementation and operation of the project activity, and steps taken to report emission reductions comply with the GS criteria. The verification assessment involved a document review of relevant documentation and the onsite audit.

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

Conclusion

RINA commissioned by HGG Enerji Üretim Anonim Şirketi has performed the verification of the emission reductions reported for the project activity CEMEL HYDRO BUNDLE, GS Registration Reference No. 1208 for the monitoring period 01/08/2021 – 30/06/2022 with regard to the relevant GS requirements and principles for project activities. The project was validated by RINA (issued on 1.3Aa 19/03/2014) [/2/](#) and [Transition Annex /19/](#).

The GHG emission reductions are calculated on the basis of the approved methodology ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources- Version 12.3.0 [/7/](#) and the monitoring plan included in the renewal registered PDD version 10 of 04/11/2019 [/1/](#). In our opinion the GHG emission reductions reported for the project in the monitoring report Version 04 of 24/02/2025 [/3/](#) are fairly stated.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader, Verifier, Technical Expert TA 1.2	IR	ERDOĞAN	Mehmet	RINA Türkiye	✓	✓	✓	✓

B.1.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader, Verifier, Technical Expert TA 1.2	IR	TİMUROĞLU	Işıl	RINA Türkiye	✓	✓	✓	✓
2	Financial Expert	IR	Van Der Tak	Casper	RINA Italy	✓	✓	✓	✓
3	Financial Expert	IR	Milkov	Victor	RINA Bulgaria	✓	✓	✓	✓

B.2. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical reviewer	IR	Carvalho	Thaís	RINA Brazil
2.	Approver	IR	Severino	Laura	RINA HO

B.2.1. Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical reviewer	IR	VALOROSO	Rita	RINA Italy
2	Technical reviewer	IR	ALFIERI	Felice	RINA Italy

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1.	Human error in the quantification of emissions (which may be more likely to occur if personnel are unfamiliar with, or not well trained regarding, emissions processes or data recording).	Low	Being 4th verification of the 1 st crediting period, the project proponent is familiar with monitoring procedures and data reporting in line with the revised registered PDD and previous verification and certification reports. The prime monitoring parameter is net export to grid which is as per monthly generation report as recorded in calibrated energy meters. Hence, the risk level is low.	During the onsite audit, the verification team will interview the staffs of the GS team and check all records to confirm whether the monitoring plan has been well implemented. The major parameters used for determining the project's baseline emissions are the measurement of net electricity generation according to the monitoring plan is recorded monthly. The team will review the whole data set of the monthly report and crosschecked against invoice raised. The verification team will check the relevant records to confirm whether the data collection procedure and QA/QC procedure have been well implemented.
2.	Undue reliance on a poorly designed information system, which may have few effective quality controls.	Low	Being 4th verification of the 1 st crediting period, the project proponent has already established a well-organized monitoring team, monitoring plan, including data collection procedure and QA/QC procedure consistent with registered monitoring plan. Monitoring equipments are calibrated at defined frequency. Hence, the risk level is low.	
3.	Manual adjustment of otherwise automatically recorded activity levels.	Low	As detailed in section C.2 below, the data of the main monitoring parameters are taken from calibrated meters (energy meter) and can be verified from totalizer values. The monitoring equipment's are calibrated according to national standards and rules. Hence, the risk level is low.	
4	An omission, misstatement, or erroneous reporting of information is material if it might lead, at an aggregated level, to an overestimation of the total GHG emission reductions or net anthropogenic GHG removals achieve by a registered GS project activity equal to or higher than the following thresholds:	Low	2 per cent of the emission reductions/removals for large-scale project activities achieving a total emission reduction of 300,000 tonnes of carbon dioxide equivalent per year or less	

C.2. Consideration of materiality in conducting the verification

The project is a bundle activity and export to grid from the plant is monitored and recorded using calibrated energy meter and 100% data is available for verification. The data which directly affect emission reduction calculations being net electricity generation is monitored and measured by calibrated electricity meters, 100% verifiable. Hence, in line with paragraph 329 and section 9.1.2.3.1 of the CDM Validation and Verification standard /6/ no significant reporting risks to the materiality of the verification were envisaged while planning for the verification and were not identified during the verification process. During the course of the verification, the team reviewed the whole data set of monthly records for net electricity /14/ without any sampling. The data reported in the monitoring report are consistent with the monthly records, and the emission reductions are correctly calculated. In conclusion, the verification team confirms the data set to be free from material error.

SECTION D. Means of verification

D.1. Desk review

The monitoring report Version 04 of 24/02/2025 and previous versions /3/, the emission reduction calculations provided in the form of a spreadsheet version 02 of 15/08/2024 /8/, the approved baseline and monitoring methodology ACM0002, - Version 12.3.0 /7/ and all the documentation provided to support the monitoring period /1 – 27/, was assessed as part of the verification. In addition, the Project Design Document (PDD) version 10 of 04/11/2019 /1/, in particular as regards the baseline estimations and the monitoring plan and the Validation Report version /2/ for the project, were reviewed. The list of all documents reviewed are referenced during the verification is available in Appendix 3 below.

D.2. Onsite audit

Duration of onsite audit: 25/01/2024				
No.	Activity performed on-site	Site location	Date	Team member
1.	Implementation and operation of the proposed project activity. Checked the monitoring equipment, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant	Avanos, Nevşehir Turkey	25/01/2024	Mehmet ERDOĞAN
2.	Reviewed the information flows for generating, aggregating and reporting the monitoring parameters			
3.	Checked calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions			
4.	Checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters			
5.	Cross-checked between information provided in the monitoring report and data evidence, including the Gold Standard parameters			

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	S.	Hüseyin	HGG Energy General Manager	25/01/2024	Implementation status of the project Monitoring equipment and operation Generated Electricity Monitoring of Gold Standard for Global Goal Parameters	Mehmet ERDOĞAN
2.	M.	Cengiz	HGG Energy Facility Manager			
3.	Ş.	İsa	HGG Energy Market Ex.			
4.	U.	İsmail	HGG Energy Electrical Technical			
5.	E.	İsmet	HGG Energy Operator			
6.	B.	İlhan	Alaaddin Village Stakeholder	25/01/2024	Local Employment Receiving General Opinion of the local stakeholder about the project Benefit of the project to the village Bird carcasses Grievance Process	Mehmet ERDOĞAN
7.	Z.	Ekrem	Alaaddin Village (Amanos) Stakeholder			
8.	A.	Mithat	Alaaddin Village Stakeholder			

During onsite audit it was confirmed that no negative feedbacks or comments were received related to project activity during grievance mechanism and continuous inputs for the monitoring period. There was also no grievance about the impact reached the VVB during the stakeholders' interviews. In addition to this, the VVB assessed that whether a comment book available at the most appropriate and publicly accessible location (Çamlıca and Yeşilköy Village, the nearest residential area) so that stakeholders can provide feedback on the

project. The continuous input/grievance mechanism has been verified through interview with the headman of village and the logbook /23/ have been checked. There isn't any positive or negative comment written on them. In addition to this during interview, it is asked to the stakeholders and project employees if any legal contests or disputes have arisen during the monitoring period and they confirmed that there is no legal contest or disputes have arisen.

D.4. Sampling approach

Not applicable.

D.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CR	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form			
Compliance of the project implementation with the revised registered PDD			
Post-registration changes			
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline			
Compliance of monitoring activities with the registered monitoring plan			
Compliance with the calibration frequency requirements for measuring instruments	1		
Assessment of data and calculation of emission reductions or net removals		1	
Assessment of the sustainability parameters			
Total	1	1	

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	The monitoring report latest version /3/ submitted by the PP have been the basis for starting the verification process. RINA confirms that the Monitoring report is based on the currently valid GS4GG MR template /9/ .
Findings	NA
Conclusion	RINA verified that the monitoring report was completed in accordance with the GS4GG-MR-FORM - Monitoring report form, including its Attachment: Instructions for filling out the monitoring report form, version 1.1 /9/ .

E.2. Remaining forward action requests from validation and/or previous verification

Based on the review of the Gold Standard Foundation [/24/19/](#) validation report [/2/](#), 1 FAR have been raised.

From the third verification process:

FAR #1: Remote Audit shall be resumed by VVB when Covid situation eases.

Response: For the current verification period physical site visit i.e., onsite visit, was conducted on 25/01/2024. During previous verification (1st CP 3rd VER) it is understood from the review document that due to Covid measures remote audit was only conducted for 24 months (01/06/2019 – 31/05/2021) instead of 26 months (01/06/2019 – 31/07/2021) and accordingly, the related ER calculations and the MR was revised as covering 24 months not 29 months and 3rd VER is approved. This verification period (1st CP 4th VER) is arranged to cover the period of 01/08/2021 – 30/06/2022 and a physical site visit is conducted on 25/01/2024.

E.3. Compliance of the project implementation with the registered project design document

Means of verification	The Monitoring Report for the project activity “ CEMEL HYDRO BUNDLE ”, /3/ submitted by the HGG Enerji Üretim Anonim Şirketi have been the basis for the verification process. It was verified during onsite audit that the proposed project activity has been implemented and it is in operation in accordance with the project activity described in the revised registered PDD /1/. 1st crediting period started on 01/07/2015 according to the revised registered PDD /1/. This is the 1st crediting period which is started on 01/07/2015 and the project activity is a run-of-river type project built on Kızılırmak river was designed with a capacity of 21.6 MWm / 20.4 Mwe as confirmed through the electricity generation license /12/ hence project is large scale. The generated electricity is fed to the Türkiye national grid. The estimated net electricity production of the project is 73,950 MWh and the annual emission reductions are estimated to be 40,006 tCO₂ per year as confirmed through the revised registered PDD /1/ and validation report /2/.
Findings	NA
Conclusion	RINA confirms that the above MR is based on the currently valid MR template /9/ and is completed in accordance with the applicable guidance document /9/. Based on the onsite audit and checking the above documents, RINA confirms that the project activity has been implemented and it is in operation as described above in accordance with the project activity in the revised registered PDD /1/.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

Project owner's name was changed from Zeynep Enerji Üretim San. Ve Tic. A.Ş to HGG Enerji Üretim San. Ve Tic. A.Ş. This is also mentioned in pages 11 and 12 of the Generation Licence. When HGG İnşaat A.Ş. became the major shareholder, they changed the company's name (Zeynep Enerji Üretim San. Ve Tic. A.Ş) to HGG Enerji Üretim San. ve Tic. A.Ş. The GS is already informed about the issue. The name change procedure is still ongoing on GS portal.

There have been no temporary deviations from registered monitoring plan, applied methodology or applied standardized baseline.

E.4.2. Corrections

Not available.

E.4.3. Changes to the start date of the crediting period

Expected commissioning date of Cemel III HEPP was 01/09/2015, therefore this date had been set for the start of crediting period. However, since the actual commissioning for Cemel III was earlier 03/07/2015 start of crediting period has been changed from 01/09/2015 to 01/07/2015.

E.4.4. Inclusion of a monitoring plan to a registered project activity

Not available

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

Not available

E.4.6. Changes to the project design of a registered project activity

Not available

E.4.7. Types of changes specific to afforestation and reforestation project activities

Not available

E.5. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	The project applies the approved methodologies ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources- Version 12.3.0 /7/. The following tools are also applicable to the project activity: “Tool to calculate the emission factor for an electricity system”, version 07.0 /10/; “Tool for the demonstration and assessment of additionality”, version 07.0.0 /11/.
Findings	NA
Conclusion	The monitoring plan in the revised registered PDD /1/ is in accordance with the monitoring methodology ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources - Version 12.3.0 /7/.

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	The parameters were available at the validation stage, which do not need to monitor during the crediting period, as per the revised registered PDD:			
	DATA/ PARAMETER	Source of data	Reported value for the project period	Assessment/ Observation
	Combined Margin Emission Factor	Calculation	0.541 tCO ₂ /MWh	As per the approved methodology ACM0002 Version 12.3.0, the combined emission factor has been determined using the ex-ante option and so it is not requested to monitor and recalculate the emission factors during the crediting period. The combined emission factor is determined to be 0.541 tCO ₂ /MWh in the revised registered PDD /1/ and validation report /2/.
Findings	NA			
Conclusion	Data and parameters fixed ex-ante are in accordance with the registered revised PDD /1/.			

E.6.2. Data and parameters monitored

Means of verification	The following parameters are monitored in accordance with the revised registered PDD /1/. The only monitoring parameter is “Quantity of net electricity generation supplied by the project plant to the grid in year y (EG_{PJ,grid,y})” as per the registered monitoring plan presented in the revised registered PDD /1/. The parameter is monitored continuously as “MWh” by 2 electricity meters (main-back up) that are located at the project area. Net electricity generation will be measured by two meters for all locations which are sealed by Distribution Company. The meters comply with EMRA (Energy Market Regulatory Authority) regulation /16/. The accuracy class of the meters defined and confirmed as 0.2s are in line with the “Communiqué for Measurement Devices used in the Electricity Market” /15/ as explained in the PDD /1/. The maintenance and calibration of meters are under Distribution Company responsibility. If any major discrepancy occurs between the two meters, Distribution Company performs necessary calibration. The electricity meters are sealed by TEIAS as confirmed during the on-site audit with the pictures of electricity meters. Periodical calibration or maintenance has been fixed once in 10 years. Since meters are sealed by Distribution Company, the project proponent cannot
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	intervene with the devices. The testing of the meters is carried out once every two years if available, as stated above table last test were conducted on 30/03/2022. All meters have an accuracy of 0.2s as confirmed through onsite audit and calibration performed by producer and examined via first index protocol /17/. The accuracy class of the meters complies with the “Communiqué for Measurement Devices used in the Electricity Market” /15/. The electricity meters are sealed by Distribution Company as confirmed via onsite audit. According to the monitoring plan in the registered PDD /1/ and in the monitoring report, estimated ($EG_{PJ,grid,y}$)” and the following sustainability parameters (SDGs) are monitored. ($EG_{PJ,grid,y}$)” Quantity of net electricity generation supplied by the project plant to the grid (starting from 01/08/2021-30/06/2022) as follows; $EG_{PJ,grid,2021} = 15,676.19$ MWh $EG_{PJ,grid,2022} = 17,936.48$ MWh Total = 33,612.67 MWh for MP. The details of verified calculation are provided by the PP via calculation spreadsheet /8/. Actual SDGs : SDG 13: Emission Reduction: 18,183 tCO₂ for MP total. SDG 13: Reduction of SO_x Emissions: 163 t SDG 13: Reduction of NO_x Emissions: 35 t SDG 7: Affordable and Clean Energy: 36,612 MWh MP total. SDG 8: Decent Work and Economic Growth: Quantitative Employment: 28 people working in the plant. Quality Employment: 28 employees work at the plant. All employees at the plant are provided health and safety issues in the monitoring period. The following parameters have been monitored in accordance with the monitoring plan in the registered PDD /1/ and the monitoring report /3/. Actual values of SDGs achieved during this monitoring period have been presented for the following sections of this report. All data collected as part of monitoring will be archived electronically by the project owner and be kept at least for 2 years after the end of the last crediting period
Findings	NA
Conclusion	RINA’s opinion that the monitoring of the project activity has been carried out in accordance with the monitoring plan in the revised PDD /1/.

E.6.3. Implementation of sampling plan

Means of verification	N/A
Findings	N/A
Conclusion	N/A

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	Distribution Company is responsible for calibration and maintenance of the devices as per the revised registered PDD. The project owner has no control on the meters since the meters are sealed by the Distribution Company. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy had occurred.		
	The meters (main and spare) were controlled by Distribution Company confirmed through first index protocol /17/. The periodical controls of these meters will be done in line with the equipment requirements and through the period defined by national metrology institutes country by country and for Türkiye this period is defined as 10 years. The calibration of meters is deemed appropriate and in compliance with the national regulation /15/.		
	During onsite audit assessment, it was confirmed that the meters are in place and functions well and no breakdown has been recorded. The specification and calibration report details of electricity meters are provided below:		
	Please see details for electricity meters below:		
	Cemel Bundle HEPP	Replaced Electricity Meter (Main)	Replaced Electricity Meter (Back-up)
	Manufacturer	EMH	EMH
	Model	LZQJ-XC-P2FB-BB 5A	LZQJ-XC-P2FB-BB 5A
Serial number	4632454	4632455	
Class	0.2S	0.2S	
Date of installation	22/08/2014	22/08/2014	
Date of Test	30/03/2022	30/03/2022	
Findings	NA		
Conclusion	RINA's opinion that the monitoring of the project activity has been carried out in accordance with the monitoring plan in the revised registered PDD /1/.		

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	The baseline emissions include the CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity, multiplying the electricity supplied to the grid (MWh) with the combined margin CO₂ emission factor for grid connected power generation in year. $BE_y = (EG_y - EG_{baseline}) \times EF_{grid,CM,y}$ Where: BE_y = Baseline emissions in tonnes CO₂e EF_{grid, CM,y} = Combined margin CO₂e emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" [tCO₂e/MWh]. EG_y = Net electricity supplied to the Grid in MWh y = Refers to a given period Baseline Emission in 2021: (01/08/2021 – 31/12/2021) BE₂₀₂₁ = 15,676.19 [MWh] * 0.541[tCO₂/MWh] = 8,480 tCO₂ Baseline Emission in 2024: (01/01/2022 – 30/06/2022) BE₂₀₂₂ = 17,936.48 [MWh] * 0.541 [tCO₂/MWh] = 9,703 tCO₂ <u>Total Emission Reduction for this monitoring period = 18,183 tCO₂</u> Reduction of SO₂ and NO_x emissions due to implementation of project activity that would otherwise be emitted by thermal power plants has been calculated by multiplying the electricity supplied to the grid (MWh) with NO_x and SO₂ emission data from GHG inventory of Turkey. SO₂ emission per MWh is calculated as 4.85 kg/MWh.
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	NO_x emission per MWh is calculated as 1.05 kg/MWh. <table><tr><th>Date</th><th>SO₂ Reductions (t SO₂)</th><th>NO_x Reductions (t NO_x)</th></tr><tr><td>01 August 2021 – 30 June 2022</td><td>163</td><td>35</td></tr></table> The details of verified calculation are provided by the PP via calculation spreadsheet /8/.	Date	SO ₂ Reductions (t SO ₂)	NO _x Reductions (t NO _x)	01 August 2021 – 30 June 2022	163	35
Date	SO ₂ Reductions (t SO ₂)	NO _x Reductions (t NO _x)					
01 August 2021 – 30 June 2022	163	35					
Findings	NA						
Conclusion	RINA verified that the baseline emissions were calculated in accordance with the revised registered PDD and methodology “ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources- Version 12.3.0 /7/ .						

E.8.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	The project emissions are assumed to be zero as per the ACM0002 /7/ since the project is a renewable energy project as defined in the revised registered PDD /1/ and validation report /2/ .
Findings	NA
Conclusion	Since RINA verified that the project emissions were assumed 0 in accordance with the revised registered PDD /1/ and methodology ACM0002 Version 12.3.0 /7/

E.8.3. Calculation of leakage GHG emissions

Means of verification	The leakage emissions are assumed to be zero as per the ACM0002 Version 12.3.0 /7/ as defined in the revised registered PDD /1/ . Since the project and leakage emissions are zero, the emission reduction equals to baseline emissions.
Findings	NA
Conclusion	Leakage was considered as zero in accordance with the applied methodology /7/ .

E.8.4. Summary of calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	According to the applied methodology “ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources” - Version 12.3.0 /7/, the emission reductions have been calculated based on the following formula: Emission reductions are calculated as follows /8/: $ER_y = BE_y - PE_y - LE_y$ Where: ER_y = Emission reductions in year y (t CO₂/yr). BE_y = Baseline emissions in year y (t CO₂/yr). PE_y = Project emissions in year y (t CO₂/yr). LE_y = Leakage emissions in year y (t CO₂/yr). Baseline emission for this monitoring period= 33,613 MWh * 0.541 tCO₂e/MWh = 18,183 tCO₂e. The details of verified calculation are provided by the PP via calculation spreadsheet /8/.
Findings	NA
Conclusion	The emission reduction calculations provided in the spreadsheet /8/ have been verified to be correct and in line with the revised registered PDD /1/ and applied methodologies /7/ .

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in revised registered PDD

Means of verification	The emission reduction from the project for the monitoring period as reported in the monitoring report is equivalent to 18,183 tCO ₂ . The reported emission reductions are approx. 50% lower than the estimated emission reduction of 36,609 tCO ₂ for the period 01/08/2021 – 30/06/2022 (both days included) as per the registered PDD /1/ due to incoming flow rate. The calculation is verified through calculation spreadsheet /8/.
Findings	NA
Conclusion	The actual emission reduction is lower than the estimated reduction given in the registered PDD /1/. The reason of the difference between the actual and estimation emission reduction is explained related to incoming flow rate.

E.8.6. Remarks on difference from estimated value in revised registered PDD

Means of verification	The reported emission reductions are approx. 50% lower than the estimated emission reduction of 36,609 tCO ₂ for the period 01/08/2021 – 30/06/2022 (both days included) as per the registered PDD /1/ due to incoming flow rate. The calculation is verified through calculation spreadsheet /8/.
Findings	NA
Conclusion	The actual emission reduction is lower than the estimated reduction given in the registered PDD /1/. The reason of the difference between the actual and estimation emission reduction is explained related to incoming flow rate.

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	The emission reductions from the project for the monitoring period as reported in the monitoring report Version 04 of 24/02/2025 /3/ is equivalent to 18,183 tCO ₂ . The calculation is verified through calculation spreadsheet /8/.
Findings	NA
Conclusion	The actual emission reduction is lower than the estimated reduction given in the registered PDD /1/. The reason of the difference between the actual and estimation emission reduction is explained related to seasonal effects which are significant on the monthly generation rates and deviations from the calculated values are acceptable. On the other hand, water flow estimation, cannot be estimated with 100% accuracy, and minor deviations from the calculated values are acceptable.

E.8.8. Assessment of the sustainability parameters

Means of verification	The assessment of the monitored parameters is described in the tables below:		
	Data variable	Source of Data	Reported value for the project period
	Climate Action (SDG 13) Amount of CO ₂ emission	Electricity Generation Calculation Spreadsheet /8/ /14/	Emission reduction: 18,183 tCO ₂ Combined Emission Factor: 0.541 tCO _{2e} /MWh
	Assessment		
	Amount of CO ₂ emissions: The parameter is monitored once a year during crediting period by calculation with the emission factor and electricity generation. The net electricity generation values were controlled by the evidence of Distribution Company screenshot records and invoices /14/. The values for the monitoring period are verified through supporting documents and calculations /8/.		
	Data variable	Source of Data	Reported value for the project period

	13.2.2 Total greenhouse gas emissions per year Air Quality Reduction of SO ₂ and NO _x emission	Electricity meters Electricity Generation and Calculation /8/	SO ₂ emission reduction = 163 t NO _x emission reduction = 35 t	
	Assessment			
	Reduction of SO ₂ and NO _x emissions: The net electricity supplied by the Project will be continuously measured and recorded by EPIAS /14/; and will be kept by the Project Owner. NO _x and SO ₂ emission data from GHG inventory of Turkey will be used as reference in calculation of the emission reduction.			
	Data variable	Source of Data	Reported value for the project period	
	Quantity of net electricity generation supplied by the project plant to the grid in year y (SDG 7)	Electricity meters Electricity Generation and Calculation /8/	33,612.67 MWh net electricity generation for MP.	
	Assessment			
	EG _{PJ,grid,y}) This parameter is monitored by electricity meters and in this monitoring period totally 33,612.67 MWh is measured /8//14/ and calculated for the net electricity generation. The net electricity generation values were controlled by the evidence of Distribution Company screenshot records and invoices /14/. The values for the monitoring period are verified through supporting documents and calculations /8/.			
	Data variable	Source of Data	Reported value for the project period	
Principle 3.6.1: Labour Rights Quality of Employment	Certificates and attendance lists of the training courses. /18/	28 employees work at the plant. All employees at the plant are provided Health & Safety Trainings		
		Occupational Health and Safety Training	12/10/2021 13/10/2021	
		First Aid Training	05/12/2021 06/12/2021	
Assessment				
Trainings: The parameter is monitored on a year base by checking the Occupational Health & Safety training records/certificates of the trainings. All the trainings are provided to the verification team /18/ and the details are presented in the MR /3/.				
Data variable	Source of Data	Reported value for the project period		
Principle 3.6.1: Labour Rights Quantitative employment and income generation	SGK Records and Recruitment Documents /13/	28 employees are hired		
Assessment				

	<u>Employment Contracts and Rate of Local People:</u> This parameter is monitored on each verification by the Registration Document /13/ of employees. 28 people are employed in this monitoring period among which 18 of them are locals.		
	Data variable	Source of Data	Reported value for the project period
	Principle 4.2.1 Impact on natural water patterns and flow Water quality and quantity	Sewage Truck Invoices /25/	Sewage truck records for October 2021 and May 2022 are provided
	Assessment		
	Disposal of the wastewater: The parameter is monitored once for each monitoring period by the sewage truck invoice. It is confirmed that wastewater due to management activities is stored and transferred to municipal waste water channel. The sewage truck invoices /25/ are provided to the verification team.		
	Data variable	Source of Data	Reported value for the project period
	4.2.1 Erosion and/or water body stability Soil condition/land restoration	Through site assessment and documents for implementation of plan /26/	The maintenance of planted areas has been done. The care is provided by project personnel.
	Assessment		
	<u>Land Restoration:</u> Land restoration pictures /26/ have been provided to the verification team.		
	Data variable	Source of Data	Reported value for the project period
	Principle 4.2.1 Impact on natural water patterns and flow Biodiversity	Fish passage expert report /27/	Fish passage is designed considering river characteristics, so the project activity does not cause any significant change or impact biodiversity.
	Assessment		
	<u>Biodiversity/Functionality of fish passage:</u> The assessment/opinion /27/ of independent expert on effectiveness of the fish passage provided to VVB. Expert assessment is supported by references and local data. Alternatives, additional measures and recommendations is discussed in the expert report.		
Findings	NA		
Conclusion	RINA verified that the GS indicators described in the monitoring report /3/ are accurate and real. Data to cross check the monitored parameters are available at the office of the company. Also, the registers of the sustainability indicators were available during the onsite audit.		

Internal quality control

The draft final verification report before being submitted to the client is subjected to an independent technical review to confirm that all validation activities has been completed according to the pertinent RINA's procedures. The technical review will be/is performed by a technical reviewer(s) qualified in accordance with the RINA's qualification procedure.

SECTION F. Verification opinion

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity CEMEL HYDRO BUNDLE, GS Registration Reference No. 1208 for the period 01/08/2021 – 30/06/2022 (both days included), with regard to the relevant GS4GG requirements and principles /4/ /5/. The project participants are responsible for the preparation for the collection of data in accordance with the monitoring plan and the reporting emission reductions from the project. It is RINA's responsibility to express an independent verification opinion on the reported emission reductions from the project and VVBs not express any opinion on the selected baseline scenario or on the validated and revised registered PDD. Based on documented evidences and corroborated by an on-site assessment RINA can confirm that: (i) the project has been implemented and operated as per the revised registered PDD; (ii) the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable GS requirements and principles; (iii) the monitoring is in place as per the applied baseline and monitoring methodology; (iv) the monitoring complies with the registered monitoring plan; (v) the monitoring plan in the revised registered PDD is as per the applied baseline and monitoring methodology.

SECTION G. Certification statement

It is RINA's opinion that the GHG emission reductions (GS VERs) stated in the latest version of monitoring report (Version 04 of 24/02/2025) /3/ for the project activity "CEMEL HYDRO BUNDLE" for the period 01/08/2021 – 30/06/2022 (both days included) are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology ACM0002, Consolidated baseline methodology for grid connected electricity generation from renewable sources - Version 12.3.0 /7/. Hence RINA is able to certify that the emission reductions from the project during the monitoring period 01/07/2022 - 30/06/2024 (both days included) amount to 18,183 tCO₂ (GS-VERs) totally. For 01/08/2021 to 31/12/2021 ER is 8,480 tCO₂ (GS-VERs); 01/01/2022 to 30/06/2023 ER is 9,703 tCO₂ (GS-VERs).

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
VVB	Validation Verification Body
EB	Executive Board
EPIAS	Energy Market Operation Inc.
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GS4GG	Gold Standard for Global Goals
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
TEIAS	Turkish Electricity Transmission Company (Türkiye Elektrik İletim A.Ş.)
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard



CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig.:
We declare that Mr:

Mehmet ERDOGAN

è qualificato come¹:
is qualified as:

TL – VAL⁴ – VER – TEC – REG-EXP³ – ITR

nello schema²:
for the scheme:

VCS – CCB – GS4GG

per le seguenti aree tecniche:
for the following technical areas:

1.1 – 1.2 – 9.2 – 13.1 – 13.2

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
3.1	Energy demand	3
9.2	Iron, steel and Ferro-alloy production	9
13.1	Waste handling and disposal	13
13.2	Manure	13

in accordo alle istruzioni dell'Unità responsabile (OU) per sostenibilità & cambiamenti climatici.
in accordance with the instructions of the responsible unit (OU) for the sustainability & climate change.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	24.03.2023	First Issue
1	12/04/2023	GS4GG extension
2	24/07/2023	GS4GG VAL extension
3	10/12/2023	TEC SS3 extension
4	31/01/2024	ITR extension

Il Responsabile di schema
Scheme Manager

¹
VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
REG-EXP: Regional Expert
ITR: Independent Reviewer
DET: Determiner

²
CDM: Clean Development Mechanism
VCS: Verified Carbon Standard
GS4GG: Gold Standard for Global Goals
SCS: SocialCarbon Standard
Jt: Joint Implementation
ISO14064-2: International standard 14064 part 2
UER: Upstream Emission Reduction
CCB: The Climate, Community & Biodiversity Alliance

³ Turkey

⁴ For GS4GG only

RNA Services S.p.A. è accreditata da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS.
RNA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS4GG Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports.

GHG_QUAL_CERT_EN(06-2021)

Page 1 of 2

**CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES***

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Thais De Lima Carvalho

è qualificato come:
is qualified as:

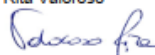
TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORIAL SCOPE
1.1	Thermal energy generation	1
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
Scheme Leader
Rita Valoroso



*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/riconosciuto da

RINA Services S.p.A. is accredited /recognized by

UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects

Appendix 3. Documents reviewed or referenced

No	Author	Title	References to the document	Provider
1	GTE Carbon	GS-PDD for “CEMEL HYDRO BUNDLE” in Türkiye	version 10 of 04/11/2019	Project participant
2	RINA	Validation report for GS project activities	version 1.3Aa issued on 19/03/2014	Project participant
3	GTE Carbon	GS4GG Monitoring Report for “ CEMEL HYDRO BUNDLE ”	Version 01 of 30/05/2024 Version 02 of 12/07/2024 Version 03 of 15/08/2024 Version 04 of 24/02/2025	Project participant
4	Gold Standard Foundation	Gold Standard for Global Goals Principles & Requirements	version 1.2 of 23/10/2019	Publicly available
5	Gold Standard Foundation	Gold Standard for Global Goals Validation/Verification Body Requirements	Version 2.0 of 14/01/2021	Publicly available
6	CDM Executive Board	Clean Development Mechanism Validation and Verification Standard	version 03.0 of 09/09/2021	Publicly available
7	CDM Executive Board	“ACM0002”, “Consolidated baseline methodology for grid connected electricity generation from renewable sources”	Version 12.3.0 of 17/09/2010	Publicly Available
8	GTE Carbon	ER_Calculation Sheet_Cemel Hydro Bundle _15.08.2024	Version 0.1 of 30/05/2024 Version 0.2 of 15/08/2024	Project participant
9	Gold Standard Foundation	Gold standard for the global goals Monitoring Report Template	version 1.1 of 14/10/2020	Publicly available
10	CDM Executive Board	Methodological Tool “Tool to calculate the emission factor for an electricity system”	version 07.0 of 31/08/2018	Publicly available
11	CDM Executive Board	Methodological Tool “ Tool for the demonstration and assessment of additionality”	version 07.0.0 of 23/11/2012	Publicly available
12	Energy Market Regulatory Authority	Electricity Generation License EÜ/3071-33/1824	date of 09/02/2011	Project participant
13	Social Security Institution	Recruitment Document for Employees	date of 16/08/2021	Project participant
14	HGG Enerji Üretim Anonim Şirketi	Invoices delivered to Distribution Company for each month (EPIAŞ-OSOS)	MP	Project participant
15	Energy Market Regulatory Authority	Communiqué for Measurement Devices used in the Electricity Market	date of 22/03/2003	Publicly available
16	Energy Market Regulatory Authority	Regulation of Metering and Testing of Metering Systems	date of 24/07/1994	Publicly available
17	TEIAS	1 st Index Protocol of the Electricity Meters	date of 22/08/2014	Project participant
18	Diriliş OSGB Akademi Sağlık	Health and Safety Training for all Employees	Date of 05-06/12/2021 12-13/10/2021	Project participant
19	GS	Transition Annex	-	Project participant

20	MEDAŞ	Test report of the Electricity Meters	date of 30/03/2022	Project participant
21	VCS Website	https://registry.verra.org/app/search/VCS/All%20Projects	Retrieved on: 21/11/2024	Project participant
22	GCC Website	https://projects.globalcarboncouncil.com/pages/submitted_projects https://projects.globalcarboncouncil.com/pages/approved_projects	Retrieved on: 21/11/2024	Project participant
23	HGG Enerji Üretim Anonim Şirketi	Avanos & Sulusaray Village	Logbook	seen onsite visit
24	GS4GG	Performance Review under Gold Standard for the Global Goals	Submitted on 19/07/2022	Project participant
25	Avanos Municipality	WW collection receipt	Submitted on 27/10/2022 26/12/2023 18/01/2024 20/03/2024	Project participant
26	HGG Enerji Üretim Anonim Şirketi	Land restoration pictures	Submitted for 2022 and 2023	Project participant
27	KSÜ Ziraat Fakültesi	Fish passage expert report	12/08/2012	Project participant

Table 1. Remaining FAR from previous verification

FAR ID	1	Section no.		Date:
Description of FAR				
Remote Audit shall be resumed by VVB when Covid situation eases.				
Project participant response				Date:
Remote Audit will be resumed by VVB when Covid situation eases. (Please give detail)				
Documentation provided by project participant				
VVB assessment				Date:
On site visit was conducted for project activity.				

Table 2. CR from this verification

CR ID	1	Section no.	Date: 05/02/2024
Description of CR			
1- Table 3 MILESTONE please mention about CP. 2- Please finalize related section by discussing to share FARs from design renewal. 3- Please share calibration and test period for electricity meters according to local law and connection agreement. Also please share calibration date and test date for main and spare electricity meter. Moreover, please share evidence of previous test report because it effects data quality for MP.			
Project participant response			Date: 10/07/2024
1- The first and second crediting period is added to the Table 3. 2- FARs from the previous i.e., third verification and FARs from the design renewal for the 2nd CP is written under Section B.1. This MP belongs to 1st CP. Should we remove the FARs from the design renewal review accordingly? 3- The calibration and test dates of the electricity meters are given under Section C and Section D.2 – EGY parameter. The related calibration report and test reports are shared as supporting documents. The test report shared with DOE dates to 30/03/2022 which is within the MP.			
Documentation provided by project participant			
DOE assessment			Date: 10/08/2024
1- It is verified. 2- OK. Verified. 3- MP is 01/08/2021-30/06/2022 so it is not sufficient to share the last test (30/03/22) because the last test doesn't cover 01/08/2021 – 30/03/2022 period. Please share the information of previous test date and supporting documents.			
Hence CR ID is not closed.			
Project participant response			Date: 15/08/2024
3 – The last and available test report (for the year 2022) is shared with DOE. Please note that the frequency for testing is not stated in the System Use Agreement. So, PO does not have to test the meters in a regular basis such as every 2 years.			
Documentation provided by project participant			
VVB assessment			Date: 24/09/2024
3- Every measurement device needs calibration and also test. I saw the connection agreement you sent and no test period is shared there. But it is not acceptable that no test has been applied between 2014 to 2022 so PO should present the previous test reports. Please see CDM rule for delay of calibration. If the previous test cannot be presented a ER calculation should be revised for delay period. B. Cases where calibration is not conducted at the frequency specified by the methodology, monitoring plan or the CDM Executive Board guidance and/or monitoring plan 4. If during verification of a certain monitoring period, the DOE identifies that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of emission reductions: (a) Applying the maximum permissible error² of the instrument to the measured values , if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error; or (b) Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment. The error shall be applied in a conservative manner such that the adjusted measured values shall result in lower baseline emissions and higher project emissions / leakage. 5. The error shall be applied for all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.			
Hence CR ID 1 is not closed.			
Project participant response			Date:27/09/2024

The calibration of the meters are valid for 10 years, as stated in the Inspection Principles of Electricity, Water and Gas Meters¹.

1. Aktif elektrik enerji sayacı

Aktif elektrik enerji sayacı: Aktif elektrik enerji sayacı, devrede harcanan aktif elektrik enerjisini ölçen cihazdır.

Elektromekanik elektrik sayacı: Sabit bobinlerdeki akımların, genelde disk/diskler gibi iletken hareketli elemanda oluşan akımlarla etkileşip, disklerin ölçülecek enerjiyle orantılı bir şekilde hareket etmesini sağladığı sayacıdır.

Statik elektrik sayacı: Akım ve gerilimin, ölçülecek enerjiyle orantılı bir çıkış üretmek için katı hâl (elektronik) elemanları üzerinde çalıştığı sayacıdır.

Periyodik muayene süresi

Aktif elektrik enerji sayaçlarının periyodik muayene süresi 10 yıldır.

1.1. 29/6/2016 tarihli ve 29757 sayılı Resmî Gazete’de yayımlanan Ölçü Aletleri Yönetmeliği (2014/32/AB) (Eski: 7/8/2008 tarihli ve 26960 sayılı Resmî Gazete’de

The meters were calibrated on year 2014. So, until year 2024 i.e., 10 years after, the calibration is valid. However, the next calibration is done in 2022 i.e., before 2024. The maintenance of the meters is the responsibility of the distribution company rather than the project owner’s.

Documentation provided by project participant

DOE assessment

Date: 22/10/2024

1- As there is no specific requirement for electricity meter tests the finding is closed.

Hence CAR ID is closed.

¹ <https://mevzuat.gov.tr/mevzuatmetin/yonetmelik/7.5.40616-ek.doc#:~:text=y%C3%BCksek%20debi%20de%C4%9Feridir.-,Periyodik%20muayene%20s%C3%BCresi,saya%C3%A7lar%C4%B1n%20muayene%20s%C3%BCresi%2010%20y%C4%B1ld%C4%B1r.>

Table 3. CAR from this verification

CAR ID	1	Section no.		Date: 05/02/2024
Description of CAR				
1- Please clear the inconsistency for end of MP 30/06/2022 or 31/06/2022 2- Please revise Table 1 unit/products section and mention GS VERs 3- Please revise sentence for page 24&28 "Annual ER for this monitoring period 19,838 tCO2/year and ER 18,184 tCO2 for this monitoring period." Update actual and ex-ante calculations and also Section E.6.				
Project participant response				Date: 10/07/2024
1- Revised. The MP ends at 30/06/2022. 2- Table 1 is revised. 3- Revised.				
Documentation provided by project participant				
DOE assessment				Date: 10/08/2024
1- Verified 2- Verified. 3- Please share updated excel sheet values for ex ante and ex post values are not in line with ER_Calculations_CEMEL_HEPP_v02. Please check and control. In registered PDD EX ante value is 40,006 Tco ₂ NOT 40,007. Please control. Also share ex ante and ex port value comparison is excel sheet.				
Hence CAR ID is not closed.				
Project participant response				Date: 15/08/2024
3- The latest ER Sheet is shared with DOE named "ER_Calculations_CEMEL_HEPP_v02_15.08.2024". The ex-ante values are revised as 40,006 tCO ₂ e.				
Documentation provided by project participant				
VVB assessment				Date:
3- Verified.				
Hence CAR ID 1 is closed.				

Table 4. FAR from this verification

FAR ID	Section No.	Date:
Description of FAR		
Project participant response		Date:
Documentation provided by project participant		
DOE assessment		Date:

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	10/06/2016	Initial publication.