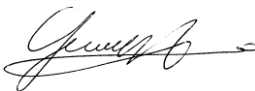




Verification and certification report form for GS project activities

VERIFICATION AND CERTIFICATION REPORT

Title of the project activity	Sah Wind Power Plant
GS Reference number of the project activity	905
Version number of the verification and certification report	2.0Aa
Completion date of the verification and certification report	31/07/2024
Monitoring period number and duration of this monitoring period	3 rd Monitoring Period of the 2 nd crediting period 01/10/2022 - 31/03/2024 (both days included)
Version number of monitoring report to which this report applies	Version 0.4 of 25/07/2024
Crediting period of the project activity corresponding to this monitoring period	15/11/2018-14/11/2025 (Second crediting period)
Project participant(s)	Galata Wind Enerji A.S. (Private Entity, Project Owner)
Host Party	Türkiye
Sectoral scope(s), selected methodology(ies)	Sectoral scope 1: Energy Industries (Renewable-/non-renewable sources) ACM0002, Grid-connected electricity generation from renewable sources --- Version 18.0
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the registered PDD	257,977 tCO ₂
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	272,893 tCO ₂
Name of VVB	RINA Services S.p.A. (RINA)
Name, position and signature of the approver of the verification and certification report	Giovanni D'Angelo (Authorized officer signing for the VVB) Sustainability & Food Certification Compliance Unit 

SECTION A. Executive summary

Purpose and general description of the project

The project activity is a wind power plant consists of 35 turbines; each have 3 MWe making the total installed capacity of 105 MWe as confirmed through the Generation License [/11/](#). The generated electricity is fed to the Türkiye national grid. For the second crediting period, the estimated net electricity production is 306,566 MWh and the annual emission reductions are estimated to be 171,828 tCO₂ per year as confirmed through the registered PDD [/1/](#).

The proposed project activity comprises of renewable energy generation from wind to energy to generate and deliver electricity to the national grid without thermal energy production. The project type is wind which is an eligible project type as it is in accordance with Eligible Project Types & Scope under Renewable Energy Activity Requirements. GHG Emissions Reduction & Sequestration product requirements are applied. 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 (GS-VERs) in Turkey by replacing fossil fuel power generation and contributing to the development of the wind energy sector in Turkey, 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 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

The project is located at Bandırma and Karacabey Districts of Balıkesir and Bursa Provinces of Türkiye. The turbine coordinates given under section A.2 of MR is in line with the generation license [/11/](#).

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 Sah Wind Power Plant for the period 01/10/2022 - 31/03/2024.

The scope of the verification is to verify that:

- The project activity has been implemented and operated in accordance with the registered PDD or any approved revised PDD;
- 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 on-site visit.

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 Galata Wind Enerji A.S. is performing the verification of the emission reductions reported for the project activity Sah Wind Power Plant, GS Registration Reference No. 905 for the monitoring period 01/10/2022 - 31/03/2024, with regard to the relevant GS requirements and principles for project activities. The project was re-validated by Bureau Veritas (validation report N° BVI/TURKEY-VD/CER.TR.2496915.C45.16.REV2, version 04 issued on 24/10/2018).

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 18.0, "Consolidated baseline methodology for grid-connected electricity from renewable sources" of 26/04/2018 and the monitoring plan included in the registered Project Design Document, version 05.1 of 06/11/2018 for the second monitoring period.

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 & Local Expert TA 1.2	IR	ERDOĞAN	Mehmet	RINA Türkiye	✓	✓	✓	✓

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	D'Angelo	Giovanni	RINA HO

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	According to the previous projects, the project proponent is familiar with monitoring procedures from and previous another verification and certification project activities developed by the PP and data reporting in line with the registered PDD. In addition, previous verifications of another WPPs which belong to the project proponent are performed by RINA. The prime monitoring parameter is net export to grid	During the site visit, the verification team conducted 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

			which is as per monthly generation report as recorded in calibrated energy meters. Hence, the risk level is low.	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	According to the previous projects, 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 CDM 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 activity happens at a single site 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 [/4/](#) 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 [/13/](#) and cross-checked with monthly meter readings [/12/](#). 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 0.4 of 25/07/2024/[/2/](#) and previous versions, the emission reduction calculations provided in the form of a spreadsheet "Sah Wind Power Project 5th Monitoring Period ER Calculations_v01.xls" version 01, submitted on 20/03/2024 [/7/](#), the approved baseline and monitoring methodology ACM0002 [/5/](#) and all the documentation provided to support the monitoring period [/1 – 25/](#), was assessed as part of the verification. In addition, the Project Design Document (PDD) [/1/](#), in particular as regards the baseline estimations and the monitoring plan, the Validation Report [/16/](#) for the project, were reviewed. The list of all documents reviewed are referenced during the verification is available in Appendix 3 below.

D.2. On-site inspection

Duration of Site Visit: 01/04/2024				
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	Bandirma and Karacabey District of Balıkesir and Bursa Province	01/04/2024	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 for Global Goal parameters			

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	B. E.	Cagla	Ruzgar Danismanlik <i>Consultant</i>	01/04/2024	Implementation status of the project	Mehmet ERDOĞAN
2.	A.	Ahmet	<i>Galata Wind Facility Manager</i>		Monitoring equipments and operation	
3.	U.	Yasin	<i>Galata Wind administrative affairs</i>		Generated Electricity	
4.	A.	Özgür	<i>Galata Wind Env. Engineer</i>		Monitoring of GS Parameters	
5.	Ö.	Semih	<i>Galata Wind Business Dev.</i>		Data Collection Metering System	
6.	Y.	İlhan	Dedeoba Village <i>Mukhtar</i>	01/04/2024	Benefit of the project to the village Local Employment Grievance Mechanism (Log Book)	Mehmet ERDOĞAN
7.	Y.	Muharrem	Dedeoba Village Deputy <i>Mukhtar</i>			
8.	B.	Sevgi	Dedeoba Village Deputy <i>Mukhtar</i>			
9.	S.	Doğan	Dedeoba Village Deputy <i>Mukhtar</i>			

On 01/04/2024, RINA visited Bandırma District of Balıkesir and Karacabey District of Bursa in Türkiye. During the on-site assessment of the project, RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, 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, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, 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, checked the correct and effective implementation of the mitigation measures foreseen in the sustainability monitoring plan, to prevent violation or the risk of violating a safeguarding principle of the “Do No Harm” Assessment or to “neutralize” a Sustainable Development Indicator.

The project employees were interviewed about the implementation status of the project, monitoring equipment and operation, generated electricity of the project activity. In addition, the stakeholders were visited in Dedeoba Village. They were interviewed about the benefit of the project to the village, fauna and flora, local employment, and the complaints for the project activity. Also, the stakeholders were confirmed that the project activity has no negative effect for the fauna and flora. During on site visit, employees were interviewed, and they confirmed the local employment hired from surrounding villages.

In addition to this, the VVB assessed that whether a comment book available at the most appropriate and publicly accessible location 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 logbooks have been checked. Logbooks are located at the Mukhtar's offices at Dedeoba and Şahmelek Villages. 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 registered PDD			
Post-registration changes			
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline		1	
Compliance of monitoring activities with the registered monitoring plan			
Compliance with the calibration frequency requirements for measuring instruments			
Assessment of data and calculation of emission reductions or net removals			
Others (please specify)	1		
Total	1	1	0

SECTION E. Verification findings

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

Means of verification	The monitoring report version 0.3 and previous version /2/ 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 MR template of GS4GG Monitoring Report, version 01.1 /8/ .
Findings	NA
Conclusion	RINA verified that the monitoring report was completed in accordance with the GS4GG Monitoring Report Form, version 01.1 /8/ .

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

Based on the review of the Gold Standard Foundation [/17/](#), 1 FAR was raised.

FAR#1: PD is requested in the following years of monitoring to follow the GS Principles and requirements. 5.1.39 "An annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed. If a verification is in progress but not completed, then an Annual Report is still required by the end of calendar year.

Response#1: Annual report is submitted to GS with reference no: (T-PerfCert_V2.0-Project-Annual-Report of Sah WPP_2022_final.pdf).

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

Means of verification	The Monitoring Report for the project activity "Sah Wind Power Plant ", Version 0.4 of 25/07/2024 /2/ and previous version submitted by the Galata Wind Enerji A.S. has been the basis for the verification process. All turbines have been commissioned in four phases. The first commissioning phase covers 21 turbines which were commissioned on 19/05/2011, the second commissioning phase covers 9 turbines which were commissioned on 03/06/2011, the third commissioning phase covers 1 turbines which were commissioned on 29/07/2011 and the fourth commissioning phase covers 4 turbines which were commissioned on 24/05/2013 as confirmed through the Temporary Acceptance Protocol. The project activity consists of 35 Vestas V90 wind turbines, with 3 MW capacities and making the total installed capacity of 105 MW / 105 MWe as confirmed through the Generation License /11/. The technical details of the wind turbines given as a brochure comply with the registered PDD /1/ and monitoring report /2/. It is confirmed during the site visit that all installed turbines are Vestas V90 turbine, each with an output of 3 MW. The project boundary in the registered PDD /1/ is in line with the actual project boundary. The generated electricity is supplied to the National Electricity Transmission Grid of Türkiye via 154 kV Gobel Transmission Line as confirmed through the Generation License /11/.
Findings	NA
Conclusion	RINA confirms that the above MR is based on the currently valid MR template /8/ and is completed in accordance with the applicable guidance document /8/ . Based on the site-visit 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 registered PDD /1/ .

E.4. Post-registration changes

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

Not available.

E.4.2. Corrections

Not available.

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

Not available.

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 from renewable sources” version 18.0 of 26/04/2018 for the second crediting period /5/ . The following tools are also applicable to the project activity: Tool to calculate the emission factor for an electricity system, version 06.0 of 01/11/2017 for the second crediting period /9/ ; “Tool for the demonstration and assessment of additionality”, version 07.0 of 23/11/2012 for the second crediting period /10/ .
Findings	NA
Conclusion	The monitoring plan in the registered PDD /1/ is in accordance with the monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity from renewable sources” /5/ .

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 registered PDD /1/ :			
	DATA/ PARAMETER	Source of data	Reported value for the project period	Assessment/ Observation
	Combined Margin Emission Factor	TEIAS statistics	0.5605 tCO2/MWh	As per the approved methodology ACM0002 version 18.0, 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 0.5605 tCO ₂ /MWh in the registered PDD /1/ and previous re-validation report /16/ .
Findings	NA			
Conclusion	Data and parameters fixed ex-ante are in accordance with the registered PDD /1/			

E.6.2. Data and parameters monitored

Means of verification	The following parameter is monitored in accordance with the registered PDD /1/. The only monitoring parameter is “Quantity of net electricity generation supplied by the project plant/unit to the grid in year y ($EG_{\text{facility},y}$)” as per the registered monitoring plan presented in the registered PDD /1/. The parameter is monitored continuously as “MWh/yr” by four electricity meters that are located at the project area. Four electricity meters are installed at the project site. For Transformers-1, the main meter is EMH LZQJ-XC with serial number 9798640 and the back-up meter is EMH LZQJ-XC 9798641 in the project activity. For Transformers-2, the main meter is EMH LZQJ-XC with serial number 9798642 and the back-up meter is EMH LZQJ-XC 9798643 in the project activity. The meters have the accuracy of 0.2s as confirmed through the First Index Report /20/, given by TEIAS. The accuracy class of the meters complies with the “Communiqué for Measurement Devices used in the Electricity Market” /14/ and given information in the PDD /1/. TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD. The project owner has no control on the meters since the meters are sealed by the TEIAS. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy was occurred. The electricity meters were installed on 17/09/2020 as confirmed through the First Index Protocol /20/ given by TEIAS. The initial calibration of the electricity meters was performed on 22/06/2020 as confirmed through the Calibration Reports /21/ given by manufacturer. The recalibration 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/. The testing of the meters are carried out once every two years if possible according to TEIAS personal availability last test were conducted on 12/08/2022. During on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no breakdown has been recorded. Monthly meter reading protocols have been used for cross-check. During the monitoring period of 01/10/2022 to 31/03/2024 (both days included) net Electricity generated and delivered to the grid by the power plant in year y ($EG_{\text{facility},y}$) amount to 486,876.207 MWh and the emission reductions to 272,893 (rounded down) tCO₂. According to the monitoring plan in the registered PDD /1/ and in the monitoring report Version 0.3 of 14/06/2024 /2/, estimated $EG_{\text{facility},y}$ and the following sustainability parameters (SDGs) are monitored which are approved by GS /1/. Actual SDGs for MP: 1 – SDG 13: CO₂: 272,893 tCO₂/year, 2 – SDG 8: 20 employment 3 – SDG 7: Quantity of net electricity supplied to the grid in year y is 486,876.207 MWh. The following parameters have been monitored in accordance with the monitoring plan in the registered PDD /1/ and the monitoring report /2/. Actual values of SDGs achieved during this monitoring period have been presented for the following sections of this report.
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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	TEIAS is responsible for calibration and maintenance of the devices as per the registered PDD. The project owner has no control on the meters since the meters are sealed by the TEIAS. If any major discrepancy occurs between the two meters, TEIAS performs necessary calibration. During this monitoring period no discrepancy occurred. The electricity meters were installed on 17/09/2020 as confirmed through the First Index Protocol /20/ given by TEIAS. The initial calibration of the electricity meters was performed on 22/06/2020 as confirmed through the Calibration Reports /21/ given by manufacturer. The recalibration 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/. The testing of the meters are carried out once every two years if possible according to TEIAS personal availability last test were conducted on 12/08/2022. During on-site assessment, it was confirmed that the meters are in place and functions well. During the monitoring period, no breakdown has been recorded.
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 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. $EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the project plant to the grid in year 2022 by the project activity (starting from 01/10/2022 to 31/12/2022) as follows: = 92,496.376 MWh $EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the project plant to the grid in year 2023 by the project activity as follows: = 316,424.663 MWh $EG_{\text{facility},y}$ Quantity of net electricity generation supplied by the project plant to the grid in year 2024 by the project activity (starting from 01/01/2024 to 31/03/2024) as follows: = 77,955.168 MWh Total= 486,876.207 MWh (related with SDG7) $BE_y = EG_{\text{facility},y} \times EF_{\text{grid,CM},y}$ Where: BE_y = Baseline emissions in year y (tCO₂/yr). $EG_{\text{PJ,grid},y}$ = Quantity of net electricity generation supplied by the project activity to the grid in year y (MWh). $EF_{\text{grid,CM},y}$ = Combined margin CO₂ emission factor for grid connected power
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	generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” Baseline Emission in 2022 (starting from 01/10/2022 to 31/12/2022): $BE_{2022} = 92,496.376 \text{ [MWh]} * 0.5605 \text{ [tCO}_2\text{/MWh]} = 51,844 \text{ tCO}_2$ Baseline Emission in 2023: $BE_{2023} = 316,424.663 \text{ [MWh]} * 0.5605 \text{ [tCO}_2\text{/MWh]} = 177,356 \text{ tCO}_2$ Baseline Emission in 2024 (starting from 01/01/2024 to 31/03/2024): $BE_{2024} = 77,955.168 \text{ [MWh]} * 0.5605 \text{ [tCO}_2\text{/MWh]} = 43,693 \text{ tCO}_2$ Total baseline emission for MP: $486,876.207 \text{ [MWh]} * 0.5605 \text{ [tCO}_2\text{/MWh]} = 272,893 \text{ tCO}_2$ The details of verified calculation are provided by the PP via calculation spreadsheet /7/
Findings	NA
Conclusion	RINA verified that the baseline emissions were calculated in accordance with the registered PDD and methodology ACM0002, "Consolidated baseline methodology for grid-connected electricity from renewable sources" /5/ .

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 /5/ since the project is a renewable energy project as defined in the registered PDD /1/ and validation report /16/ .
Findings	NA
Conclusion	RINA verified that the project emissions were assumed 0 in accordance with the registered PDD /1/ and methodology ACM0002 /5/

E.8.3. Calculation of leakage GHG emissions

Means of verification	The leakage emissions are assumed to be zero as per the ACM0002 /5/ as defined in the registered PDD /1/ . Since the project and leakage emissions are zero, the emission reduction equals to baseline emissions.
Findings	N/A
Conclusion	Leakage was considered as zero in accordance with the applied methodology /5/ .

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 from renewable sources” /5/, the emission reductions have been calculated based on the following formula: Emission reductions are calculated as follows: $ER_y = BE_y - PE_y - LE_y$ 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). Emission Reduction in 2022 (starting from 01/10/2022 to 31/12/2022): $ER_{2022} = 51,844 - 0 - 0 = 51,844 \text{ tCO}_2$ $ER_{2023} = 177,356 - 0 - 0 = 177,356 \text{ tCO}_2$ Emission Reduction in 2024 (starting from 01/01/2024 to 31/03/2024): $ER_{2024} = 43,694 - 0 - 0 = 43,693 \text{ tCO}_2$
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	ER total= 272,893 tCO ₂
Findings	NA
Conclusion	The emission reduction calculations provided in the spreadsheet /7/ have been verified to be correct and in line with the registered PDD /1/ and applied methodologies /5/ .

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

Means of verification	The emission reductions from the project for the monitoring period as reported in the monitoring report Version 0.4 of 25/07/2024 /2/ is equivalent to 272,893 tCO ₂ for this crediting period. The reported emission reductions are higher (5.78%) than the estimated emission reduction of 257,977 tCO ₂ for the second crediting period as per the registered PDD /1/ due to higher wind power than expected. The calculation is verified through calculation spreadsheet /7/ .
Findings	NA
Conclusion	The actual emission reduction is a little bit higher for second crediting period 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 higher wind speed than expected.

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

Means of verification	The emission reductions from the project as reported in the monitoring report Version 0.4 of 25/07/2024 /2/ is equivalent to 272,893 tCO ₂ for this monitoring period. The reported emission reductions are higher (5.78%) than the estimated emission reduction of 257,977 tCO ₂ for the second crediting period as per the registered PDD /1/ due to higher wind power than expected. The calculation is verified through calculation spreadsheet /7/ .
Findings	NA
Conclusion	The actual emission reduction is a little bit higher for second crediting period 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 higher wind speed than expected.

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	RINA verified that the actual monitoring period does not fall into the first commitment period.
Findings	NA
Conclusion	RINA verified that the actual monitoring period does not fall into the first commitment period.

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
	SDG13: Climate Action Emissions Reductions in tCO ₂	Electricity generated by Sah Wind Power Plant /7/ and calculated combined margin (CM) emission factor	272,893 tCO ₂
	Assessment		
	<u>Emissions Reductions in tCO₂</u> : The parameter is monitored once every monitoring period by calculation with combined margin emission factor and amount of net electricity generation.		
	Data variable	Source of Data	Reported value for the project period
	Quantitative Employment and Income Generation (SDG 8)	Social Security Records /18/	20 employees are hired.

	Number of employments														
	Assessment														
	<u>Number of employments:</u> This parameter is monitored annually by the Social Security Records – Service List /18/ of employees. During this monitoring period 20 employees are hired.														
	<table><tr><th>Data variable</th><th>Source of Data</th><th>Reported value for the project period</th></tr><tr><td>Quality of Employment (SDG 8) Health and Safety Training Records</td><td>Certificates and training records /19/ /22/ /23/</td><td>20 employees are attended to Health and Safety Trainings and certificates are shared with VVB and verified.</td></tr><tr><td colspan="3">Assessment</td></tr><tr><td colspan="3"><u>Number of certificates issued/trainings provided:</u> The parameter is monitored annually by checking the certificates and attendance lists of the trainings. The certificates were checked, and it is confirmed that all the employees are attended to Health and Safety Trainings.</td></tr></table>			Data variable	Source of Data	Reported value for the project period	Quality of Employment (SDG 8) Health and Safety Training Records	Certificates and training records /19/ /22/ /23/	20 employees are attended to Health and Safety Trainings and certificates are shared with VVB and verified.	Assessment			<u>Number of certificates issued/trainings provided:</u> The parameter is monitored annually by checking the certificates and attendance lists of the trainings. The certificates were checked, and it is confirmed that all the employees are attended to Health and Safety Trainings.		
Data variable	Source of Data	Reported value for the project period													
Quality of Employment (SDG 8) Health and Safety Training Records	Certificates and training records /19/ /22/ /23/	20 employees are attended to Health and Safety Trainings and certificates are shared with VVB and verified.													
Assessment															
<u>Number of certificates issued/trainings provided:</u> The parameter is monitored annually by checking the certificates and attendance lists of the trainings. The certificates were checked, and it is confirmed that all the employees are attended to Health and Safety Trainings.															
Findings	NA														
Conclusion	RINA verified that the GS indicators described in the monitoring report version 0.3 /2/ 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 site-visit.														

SECTION F. 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 is performed by a technical reviewer(s) qualified in accordance with the RINA's qualification procedure.

SECTION G. Verification opinion

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity Sah Wind Power Plant, GS Registration Reference No. 905 for the period 01/10/2022 – 31/03/2024, with regard to the relevant GS requirements and principles. 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 does not express any opinion on the selected baseline scenario or on the validated and 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 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 registered PDD is as per the applied baseline and monitoring methodology.

SECTION H. Certification statement

It is RINA's opinion that the GHG emission reductions stated in the latest version of monitoring report (Version 0.4 of 25/07/2024) [/2/](#) for the project activity "Sah Wind Power Plant" for the period 01/10/2022 – 31/03/2024 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology ACM0002, Grid-connected electricity generation from renewable sources [/5/](#) and the project activity meets all the relevant GS4GG Product Requirements and Activity and GS requirements (GS VERs). Hence, RINA is able to certify that the emission reductions (GS VERs) are 51,844 tCO₂ (GS-VERs) for 01/10/2022-31/12/2022, 177,356 tCO₂ (GS-VERs) for 2023, 43,693 tCO₂ (GS-VERs) for 01/01/2024-31/03/2024 and from the project during the monitoring period 01/10/2022 – 31/03/2024 amount to 272,893 tCO₂.

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 and Verification Body
EB	Executive Board
EPIAS	Energy Market Management Inc.
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GS	Gold Standard
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

Appendix 2. Competence of team members and technical reviewers



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
JI: 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

GHS_QUAL_CERT_EN(06-2021)

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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:

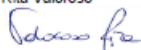
TEC, VAL, VER, TL, ITRP

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

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL 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, SGS 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 accreditata/recognized by
RINA Services S.p.A. is accredited/recognized by

UNFCCC	quali Entity Operative Designated (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 SGS to carry out Validation and Verification of SGS 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	Ruzgar Danismanlik	GS-PDD for “Sah Wind Power Plant” in Türkiye for second crediting period	version 05.1 of 06/11/2018	Project participant
2	Ruzgar Danismanlik	Monitoring Report for “Sah Wind Power Plant” in Türkiye	Version 0.4 of 25/07/2024 Version 0.3 of 14/06/2024 Version 0.2 of 21/05/2024 Version 0.1 of 20/03/2024	Project participant
3	Gold Standard Foundation	GS4GG Standard Requirements	Version 1.2 of 23/10/2019	Publicly available
4	CDM Executive Board	Clean Development Mechanism Validation and Verification Standard	version 03.0 of 09/09/2021	Publicly available
5	CDM Executive Board	Baseline and monitoring methodology “ACM0002” “Grid-connected electricity from renewable sources”	version 18.0 of 26/04/2018	Publicly available
6	RINA	Verification Report for “Sah Wind Power Plant” GS_VER_REP_Sah WPP_22TQMD7_Rev 3.0Aa 27042023	version 3.0Aa 27/04/2023	Project participant
7	Ruzgar Danismanlik	Emission Reduction Calculation Spreadsheet “Sah Wind Power Project 5th Monitoring Period ER Calculations_v01.xls”	Version 0.1 of 20/03/2024	Project participant
8	Gold Standard Foundation	GS4GG Monitoring Report Form	version 1.1 of 14/10/2020	Publicly available
9	CDM Executive Board	Methodological Tool “Tool to calculate the emission factor for an electricity system”	version 06.0 of 01/11/2017	Publicly available
10	CDM Executive Board	Methodological Tool “Tool for the demonstration and assessment of additionality”	version 07.0 of 23/11/2012	Publicly available
11	Energy Market Regulatory Authority	Generation License EU/1565-7/1139	date 05/07/2007 of	Project participant
12	TEIAS	Monthly Meter Reading Protocols	MP	Project participant
13	Enerji Piyasaları İşletme A.S.(EPIAS)	Monthly Electricity Records within the Monitoring Period	MP	Project participant
14	Energy Market Regulatory Authority	Communiqué for Measurement Devices used in the Electricity Market	date 22/03/2003 of	Publicly available
15	The Ministry of Trade and Industry	Regulation of Metering and Testing of Metering Systems	date 24/07/1994 of	Publicly available
16	Bureau Veritas	Re-Validation Report for “Sah Wind Power Plant” REPORT NO. BVI/TURKEY-VD/CER.TR.2496915.C45.16.REV2	version 04 of 24/10/2018	Project participant
17	The Gold Standard Foundation	Performance Review under Gold Standard for the Global Goals	submitted on 18/05/2023	Project participant
18	Social Security Institution	SGK Service List for Galata Wind, Securitas and Vestas employees	year of 2022 year of 2023	Project participant

			and 2024	
19	Oyku Ortak Saglik	Health and Safety Trainings for Galata Wind	of 7 people 2022 and 2023	Project participant
20	TEIAS	First Index Protocol for all the Electricity Meters	Date of 17/09/2020	Project participant
21	EMH	Calibration of the Electricity Meters	of 22/06/2020	Project participant
22	EkoGlobal OSG	Health and Safety Trainings for Securitas	Various dates; submitted on 06/2022 and 08/2023	Project participant
23	ArtıMetrik	Health and Safety Trainings for Vestas	Various dates; submitted on 2022 and 2023	Project participant
24	VCS Website	https://registry.terra.org/app/search/VCS/All%20Projects	Retrieved on: 23/03/2024	Project participant
25	GCC Website	https://projects.globalcarboncouncil.com/pages/submitted_projects https://projects.globalcarboncouncil.com/pages/approved_projects	Retrieved on: 23/03/2024	Project participant

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

Table 1. Remaining FAR from previous verification

FAR ID	1	Section no.	Date:
Description of FAR			
PD is requested in the following years of monitoring to follow the GS Principles and requirements. 5.1.39 “An annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed. If a verification is in progress but not completed, then an Annual Report is still required by the end of calendar year.			
Project participant response			Date:
PP submits an annual report for each monitoring year by end of next calendar year for which verification is not completed.			
Documentation provided by project participant			
VVB assessment			Date:
Annual report is shared with VVB and will be submitted to GS.			

Table 2. CR from this verification

CR ID	1	Section no.	D	Date: 21/05/2024
Description of CR				
1- Please share generation license as supporting document.				
Project participant response				Date: 21/05/2024
The generation license has been provided to the VVB as supporting document				
Documentation provided by project participant				
Generation License				
DOE assessment				Date: 05/06/2024
1- OK				
Hence CR ID 1 is closed.				

Table 3. CAR from this verification

CAR ID	Section no.	Date: 21/05/2024
Description of CAR		
1- Please revise year information in Section D.2 for parameter 7.2.1		
2- Please revise year information in Section D.2 for parameter 13.3.2		
Project participant response		Date: 21/05/2024
1-The year information has been revised in Section D.2 for parameter 7.2.1		
2- The year information has been revised in Section D.2 for parameter 13.3.2		
Documentation provided by project participant		
DOE assessment		Date: 05/06/2024
1- OK		
2- OK		
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.