VERIFICATION REPORT

ZEUS HYDROELECTRIC POWER PLANT

BCR-CO-173-1-003

APPLUS CERTIFICATION

VERIFICATION REPORT PROJECT ID	
Project Title	*ZEUS HYDROELECTRIC POWER PLANT*
Project ID	*BCR-CO-173-1-003*
Project holder	*Central Hidroeléctrica Zeus S.A.S. E.S.P.*
Project Type	*Energy sector: Renewable energy- Hydraulic power*
Grouped project	*NO*
Version number and date of the Project Document to which this report applies	*Version 6.0, dated on 06/05/2025*
Applied methodology (ies)	*AMS-I.D.: Grid connected renewable electricity generation --- Version 18.0*
Project location	*Colombia* *Donmatías, Antioquía,*
Project starting date	*17/05/2022*
Quantification period of GHG emissions reductions/removals	*(17/05/2022 to 16/05/2029)*
Monitoring period	*17/05/2022 to 31/12/2024*

Total amount of GHG emission reductions/removals claimed during the monitoring period.	*60,641 tCO2e*
Contribution to Sustainable Development Goals	*7, 8, 13*
Special category, related to co-benefits	*NA*
Version and date of issuing	*Version 3.0, dated on 26/11/2025*
Work carried out by	*Mr. Raúl Mitre (Team Leader and Technical Expert)*
Approved by	*Karen Elizabeth Vega* ***Technical Manager – APPLUS***

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1 Executive summary

The Zeus Hydroelectric Plant project consists of a run-of-the-river power plant that uses the waters of the Rio Grande River, and have installed 2 Francis turbines, with a total installed capacity of 9.88 MW based on a feed flow of 7 m³/s and an expected generation of 59,200 MWh per year of renewable energy. Therefore, the project belongs to the energy sector. This complies with the standard rule, which states that only small run-of-river hydropower plants between 500 and 20,000 kW of installed capacity are eligible. The proposed project is in the municipality of Don Matias, which lies within the Antioquia department in Colombia.

The power is dispatched to the Colombian Power Grid. Prior to project implementation, no hydroelectric plant or other generation plants were installed at the site. In the baseline scenario, the energy delivered to the grid is generated by a mix of thermal and renewable power generation as reflected in the combined margin emissions factor (as per the tool applied). Hence, the project will reduce thermal power generation and GHG emissions from fossil fuel-based generation in the grid by increasing the share of renewable energy. The scope of this verification process is to assess the total GHG emission reductions achieved by the project during the first monitoring period from 17/05/2022 to 31/12/2024, and the purpose is to confirm the compliance of the project with the latest version of the BCR manual for validation and verification /4/, registered PD/1/, and the proper application of the monitoring methodology "AMS-I.D.: Grid connected renewable electricity generation, Version 18.0" /6/ and its related CDM tools and guidelines.

During this verification process, seven (7) findings occurred to be classified as one (1) corrective actions request and SIX (6) clarifications actions request which were treated by the project holder and clarified in a new version of the MR /3/. Also, it was assessed and closed the FAR raised during the validation. Upon review of the documentation and explanations provided by the project holder, all findings were closed out in a clear and transparent manner. APPLUS verified the implementation status and monitoring performance through the documental review and onsite visit (it was conducted on 26/06/2025), addressing conservatively the restrictions and uncertainties associated to this verification process. APPLUS confirms that it achieved a reasonable level of assurance during the verification.

The verification team was able to conclude that as it was described in the latest version of the monitoring report /3/, it meets all relevant BCR requirements and correctly applies the baseline and monitoring methodology AMS-I.D.: Grid connected renewable electricity generation Version 18.0 /6/. Hence, APPLUS requests the issuance of the VCC claimed for the project for the first verification period (60,641 tCO2e).

2 Objective, scope and verification criteria

APPLUS was appointed by "South Pole Carbon Asset Management S.A.S" to perform the verification of the 1st monitoring period of the project "Zeus Hydroelectric Power Plant" in "Colombia" through the accepted offer, dated in May 2025. The objective of this verification activity is to have an independent third party for the assessment of the project performance and monitoring, and to ensure a thorough assessment of the proposed project activity against the applicable BCR.

In particular: The project monitoring plan and GHG emissions reduction was assessed against "AMS-I.D.: Grid connected renewable electricity generation, Version 18.0" /6/. The project's compliance with the requirements of BCR and other relevant rules, including the Host Country's legislation and sustainability criteria. Verification is a requirement for all BCR projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of BioCarbon emission reductions (BCERs).

The scope of the verification is the independent and objective review of the Monitoring Report (MR) and ER's Spreadsheets. The purpose of the verification is its usage during the issuance process as part of the BCR project cycle. Therefore, APPLUS cannot be held liable by any party for decisions made or not made based on the verification opinion that go beyond that purpose.

For the development of the verification, the following Biocarbon's Verification Criteria were applied:

- *Validation and Verification Manual. GHG Projects. Version 3.0. June 13, 2025 /4/*
- *BCR STANDARD. Version 4.0. July 14, 2025 /5/*
- *BCR Tool. Avoid double counting of emissions reductions or removals. Version 3.0, April 7, 2025 /9/*
- *BCR Tool. Monitoring, Reporting and Verification (MRV). Version 2.0, June 23, 2025 /10/*
- *BCR Tool. Sustainable Development Goals (SDGs). Version 1.0, July 13, 2023 /11/*
- *Biocarbon Tool: Permanence And Risk Management. Version 2.0, June 3, 2025 /39/*

3 Verification process

3.1 Level of assurance and materiality

According to the requirements of the validation and verification manual, and provisions stated in clause 5.1.7 of ISO 14064-3, it was scheduled in the audit plan, the level of assurance and materiality considered during the validation has been:

a) The level of assurance of 95%

b) The material discrepancy in the data supporting the GHG Project baseline and the estimate of GHG emission reductions of +/-5%.

Therefore, APPLUS hereby confirms that the reasonableness of assumptions of this verification report is reasonable, with respect to material errors, omissions, and misrepresentations. To guarantee this reasonableness of assumptions all data that is used

3.2 Validation and verification activities

3.2.1 Planning

The verification process was carried out in accordance with the requirements established in the ISO 14064-3:2019 "Greenhouse Gases. Part 3: Specification with guidance for validation and verification on gases and in the BCR Standard /4, 5/. As a step prior to the preparation of the Verification Plan, the MR and other relevant documents that at the discretion of the audit team have been requested for a good organization of the audit were reviewed and was conducted a strategic and risk analysis, evaluating the issues indicated in the ISO 14064-3: 2019 standard by the audit team. Based on the strategic and risk analysis and considering the requirements of the BCR Standard /5/, in the case of this project, a sampling was not carried out and 100% of data and information has been reviewed. Below are depicted the main results from the strategic analysis conducted:

GENERAL DEFINITION OF THE EVIDENCE-GATHERING PLAN				
Area of interest	**Relevant**	**Main Data Source(s)**	**Type(s) of Test[2]**	**Data population to check**
BCR Project start date	☒ YES ☐ NO	Validation report interviews	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Project quantification period	☒ YES ☐ NO	BCR Standard version 3.4 Validation report interviews	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
General description of the project	☒ YES ☐ NO	Registered PD Monitoring report	Observation Confirmation	☒ 100% ☐ SAMPLING
Project location and project boundaries	☒ YES ☐ NO	Registered PD Monitoring report Site visit Google Earth Design documents	Observation Confirmation	☒ 100% ☐ SAMPLING
Crediting period start date, type and duration	☒ YES ☐ NO	Validation report Monitoring report	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Implementation of the project	☒ YES ☐ NO	Operational reports Maintenance reports Energy bills	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Parties involved and project proponents, ownership	☒ YES	- Training attendance lists.	Observation	☒ 100%

[2] At a reasonable level of assurance, there is an expectation, but not a requirement, to use tests of control in the evidence-gathering plan. At a limited level of assurance, tests of controls are optional.

GENERAL DEFINITION OF THE EVIDENCE-GATHERING PLAN				
Area of interest	**Relevant**	**Main Data Source(s)**	**Type(s) of Test[2]**	**Data population to check**
	☐ NO	- Meeting reports between 2022 and 2024. - Employability reports between 2022 and 2024. - Zeus Complaints Mechanism report between 2022 and 2024. - Ownership evidence. - Environmental Licence	Inquiry Confirmation	☐ SAMPLING
Participation under other GHG Programs, binding limits and other forms of environmental credits	☒ YES ☐ NO	Verra registry GS registry Cercarbono registry	Confirmation	☒ 100% ☐ SAMPLING
Double Counting and Participation under Other GHG Programs.	☒ YES ☐ NO	Verra registry GS registry Cercarbono registry	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Changes after the GHG project registration	☒ YES ☐ NO	Registered PD and Monitoring report Maintenance and operation reports Site visit and interviews	Observation Inquiry Confirmation	☐ 100% ☒ SAMPLING
Baseline and project emissions	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations	Confirmation Recalculation Cross-checking	☒ 100% ☐ SAMPLING
Environmental impacts, no net harm safeguards establishment	☒ YES ☐ NO	Environmental Compliance Measures. Environmental compliance report.	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING

GENERAL DEFINITION OF THE EVIDENCE-GATHERING PLAN				
Area of interest	**Relevant**	**Main Data Source(s)**	**Type(s) of Test[2]**	**Data population to check**
Monitoring system	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations Maintenance and operation reports	Observation Inquiry Confirmation Recalculation Cross-checking	☒ 100% ☐ SAMPLING
Stakeholders' Consultation	☒ YES ☐ NO	Zeus Complaints Mechanism report between 2024 and 2025. Environmental compliance report. Socialization meetings' reports Minutes of comments received	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Environmental Aspects	☒ YES ☐ NO	Biocarbon Sustainable Development Safeguards Tool v1.1 Environmental License/management plan	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Socioeconomic Aspects	☒ YES ☐ NO	Biocarbon Sustainable Development Safeguards Tool v1.1 Environmental License/management plan Environmental compliance reports	Inquiry Inquiry Confirmation	☒ 100% ☐ SAMPLING
Data and parameters to quantify the reduction of emissions	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations Plant records of energy generation / Energy bills	Observation Confirmation Recalculation Cross-checking	☒ 100% ☐ SAMPLING
Quantification of GHG emission reduction / removals	☒ YES	Registered PD	Observation	☒ 100%

GENERAL DEFINITION OF THE EVIDENCE-GATHERING PLAN				
Area of interest	**Relevant**	**Main Data Source(s)**	**Type(s) of Test[2]**	**Data population to check**
	☐ NO	Monitoring report Applied methodology Emission Reduction (ERs) calculations Plant records of energy generation / Energy bills	Confirmation Recalculation Cross-checking	☐ SAMPLING
Data collection systems, QA/QC Procedures	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations Plant records of energy generation Energy bills	Observation Inquiry Confirmation Cross-checking	☒ 100% ☐ SAMPLING
Metering Equipment / Measurement Methods	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations Calibration certificates CREG Resolution 038	Observation Inquiry Confirmation Recalculation Cross-checking	☒ 100% ☐ SAMPLING
Parameters fixed ex-ante	☒ YES ☐ NO	Registered PD	Confirmation	☒ 100% ☐ SAMPLING
Parameters to be determined ex-post	☒ YES ☐ NO	Registered PD Monitoring report Applied methodology Emission Reduction (ERs) calculations Energy bills and plant reports	Observation Inquiry Confirmation Recalculation Cross-checking	☒ 100% ☐ SAMPLING

GENERAL DEFINITION OF THE EVIDENCE-GATHERING PLAN				
Area of interest	**Relevant**	**Main Data Source(s)**	**Type(s) of Test[2]**	**Data population to check**
Compliance with Applicable Legislation	☒ YES ☐ NO	Law 1423/1994 CREG Resolution 038	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Climate change adaptation	☒ YES ☐ NO	Interviews Monitoring report Environmental compliance reports	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Carbon ownership and rights	☒ YES ☐ NO	Legal documents Energy contracts Validation report	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING
Contribution to Sustainable Development Goals (SGD)	☒ YES ☐ NO	Environmental Compliance Reports Registered PD Monitoring report Emission Reduction (ERs) calculations Employability reports between 2022 and 2024.	Observation Inquiry Confirmation	☒ 100% ☐ SAMPLING

3.2.2 Sampling

Based on the strategic and risk analysis carried out by the audit team that considered the requirements of the BCR Standard /5/ related to the level of assurance, the scope of verification, the verification criteria, the quality, and type of evidence (qualitative and quantitative) required to achieve the required level of assurance, the methodologies for determining representative samples, and the risks of potential errors, omissions, or misinterpretations, in the case of this project, a sampling was not carried out and 100% of data and information has been reviewed. The above sampling plan included 100% of the energy invoices applicable for the MP, as well as the records of calibration for main and backup energy meters working during the MP. Applus can conclude that risk of material misstatements, omissions, or misinterpretations in the GHG statement did not materialize during the MP under evaluation.

In the Annex 3, references 14, 15, 16, 17 and 19 it can be seen the evidence reviewed by the audit team as part of the sample plan followed.

3.2.3 Execution

Preliminary assessment of the monitoring results: As was indicated in section 1 of this report, the scope of this verification process was to assess the estimated total GHG emission reductions achieved by the project during the 1st monitoring period from 17/05/2022 to 31/12/2024; as well as its compliance with the latest version of the BCR standard/5/, based on the latest version of the MR /3/, and the proper application of the monitoring methodology "AMS-I.D.: Grid connected renewable electricity generation. Cross checking against plant records /13, 14, 15, 16, 17/, energy bills and official monitoring data/17, 19/were also done to confirm the GHG ERs claimed by the project.

Therefore, as part of the preliminary assessment, the verification team requested the project holder for sufficient information to confirm the results claimed (60,641 tCO2e) for the 1st monitoring period of the project as follows:

- *Monitoring Report /3 /*
- *ER's Spreadsheets /18 /*

- *Energy invoices /19 /*
- *Plant's operation and maintenance reports /13/*
- *Calibration certificates of the monitoring equipment /15, 16 /*
- *Records of energy generation /17/*
- *Information supporting SDG compliance during the monitoring period /20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33/*
- *Shutdown reports for 2022 and 2023 /13/*

Below are depicted the main activities performed during the 1st verification of the project:

Activity performed	***Date***
Publishing the MR on the website of the program for GSC	*May 2025*
Desk review of documents	*18/06/2025 – 20/06/2025*
Audit plan submission	*20/06/2025*
On-site visit	*26/06/2025*
Submission of Findings	*26/06/2025*
1st round of answers	*15/08/2025*
Issuance of the draft verification report	*31/08/2025*
Technical review	*Sep 2025*
Final approval	*Oct 2025*

3.2.3.1 Onsite inspection

APPLUS performed an onsite inspection on 26/06/2025 to the project as per the verification plan prepared for the assessment. Below are listed the main activities performed:

- *Opening meeting /Closing Meeting*
- *Assessment of current project implementation and characteristics*
- *Project site visit (power plant and S/E) and interview with relevant personnel (operation, maintenance, environmental, locals)*
- *Document review and cross checking (Energy invoices, Plant's operation and maintenance reports, Calibration certificates of the monitoring equipment, Records of energy generation, Information supporting SDG compliance during the monitoring period, Shutdown reports for 2022 and 2023*
- *Verification team's internal meeting (consolidation of findings and final conclusions of the assessment)*

3.2.3.2 Interviews

During the verification, follow-up interviews were performed by APPLUS to further analyze the correctness and accurateness of the information provided. The list of total individuals who were interviewed during the on-site visit and the whole verification, executed on 26/06/2025 is given in Table below:

Name -Role	Affiliation	Topic discussed	Interview approach
Adelaida Londoño	Ingeobosque	Environmental and SDG Compliance	In person
Juan D. Escandon	South Pole	Project implementation, Monitoring and GHG ERs	In person
Juan Camilo R.	SHP Zeus	Project Operation	In person
Andres Pino	SHP Zeus		
Yeison Valencia	SHP Zeus		
Carlos Holguin	SHP Zeus	Project Operation / Billing / SDG Compliance	In person
Sonia Cruz	Don Matias Community	Co benefits of the project /Stakeholder Engagement	In person
Efren Montoya			

In general, Applus is able to conclude from the interviews that:

- *The Environmental and SDG Compliance of project during the monitoring period has run as per the applicable BioCarbon rules and requirements.*
- *Project implementation, monitoring and estimation of ER´s has been followed as per the applicable BioCarbon guidelines and rules.*
- *Project operation and energy billing were under normal conditions during the monitoring period and as per the applicable BioCarbon guidelines and rules.*
- *Cobenefits of the project were duly measured and reported on the latest version of the monitoring report.*
- *Stakeholder engagement was confirmed during the interviews with internal (operational and maintenance staff) and external people (neighbors from the nearby community of Don Matias) during the onsite visit.*

3.2.3.3 Findings

As per the latest version of the BCR Standard /5/, the verification team reports the non-conformities in the forms of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). When and for which type of non-conformities CARs, CLs and FARs are issued are explained below.

- *The Verification team raises a CAR if one of the following occurs: The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions.*
- *The BCR requirements have not been met.*
- *There is a risk that emission reductions cannot be monitored or calculated.*

The Verification team raises a CL if information is insufficient or not clear or not sufficiently transparent to determine whether the applicable CDM and/or BCR requirements have been met.

The Verification team raises a FAR during the verification to highlight issues related to project implementation that require a review during further verifications of the project activity.

Annex 2 of this report describes the results and responses given by the project holder to each of the requests for corrective actions, requests for clarification and requests for future actions, generated by the audit team during the 1st verification, as well as the conclusion responses provided by the project holder to these inquiries.

3.3 Verification team

The appointment process of the verification team considers the technical area(s), sectoral scope(s), and relevant host country experience required amongst team members for the accurate and thorough assessment of the project design. The verification team and ITR were assigned to this verification activity on June 2025, taking all the above factors into consideration and as a result of the contract review process, where is assessed the compliance of the verification team with the requirements of BCR Antibribery policy. The verification team members and ITR are given in Table below:

Name	Role	Duties
Raúl Mitre	Lead auditor and technical expert	On-site visit and monitoring of the auditor in training
Cristian Grisales	Auditor in Training, Lead Auditor in Training and Technical Expert in Training	Documentation review, on-site visit, report
Denny Xue	Technical reviewer	Perform the technical review
Karen Elizabeth Vega	Approver	Approve the verification report

4 Validation findings

The audit team summarizes the compliance, in accordance with applicable validation requirements in the BCR Standard /5/ and the VVM /4/, describing means of verification and a brief description of findings raised in each of the following sections.

The findings detected by APPLUS have been one (1) CAR and six (6) CL that shall be treated by the project holder and clarified through communications or meetings between the two parties, and the information resulting was included in the final version of the MR and the complementary documentation, identified in the annex 3.

4.1.1 Methodology deviations

NA. Neither the desk review, nor the onsite visit APPLUS identified any methodology deviation to the applied methodology. No material misstatements were found.

4.1.2 Changes after project registration

NA. During the onsite visit APPLUS reviewed the nameplates of all the main equipment of the SHP and did not identify any post registration changes. Also, it was reviewed the latest report of the equipment installed /12/ and no differences (against the information depicted on the PD and validation report) were found.

4.1.3 Other GHG program

NA. The project has not been neither rejected from other GHG Programs, nor registered. APPLUS reviewed the following GHG Programs and did not identify rejections or participations:

- *Gold Standard*
- *Verra (VCS)*
- *ACR*
- *Cercarbono*
- *ColCX*
- *GCC*
- *General Google Search (SHP Zeus – GHG)*

4.1.4 Grouped projects (if applicable)

NA. The project does not belong to any bundle of SHP. APPLUS reviewed the official declaration[1] of the project in the Colombian Power System/22/ and confirmed that it is categorized like a SHP.

5 Verification findings

The findings resulting from the 1st verification of the project are fully depicted in Annex 3 of this report.

5.1 Project and monitoring plan implementation

5.1.1 Project activity implementation

The proposed project consists of implementing a hydroelectric plant located in the Rio Grande River basin in the municipality of Don Matias, which lies within the Antioquia department in Colombia at an approximate distance of 60 km from Medellín. Up to the site

[1] https://www.xm.com.co/noticias/5037-en-el-segundo-trimestre-de-2022-ingresaron-tres-proyectos-de-generacion-solar-al-sin

where the Zeus project is located, the Rio Grande River basin covers territories in the Don Matías and Santa Rosa de Osos municipalities.

The project has installed 2 Francis turbines, provided by Wasserkraft Volk, with a total capacity of 9.88 MW (Turbine) based on a feed flow of 7 m³/s and an expected generation of 59,200 MWh per year of renewable energy. This information was checked during the onsite visit (physical inspection and documentary review) to the power plant /12, 13, 16/.

On the other hand, APPLUS visited the Power S/E "Rio Grande" declared commercial frontier of the project and took photographical record /16/ and interviewed staff of maintenance and operation of the equipment. The electrical energy has been dispatched to the Colombian Power System (SIN as per its acronym in Spanish) during the monitoring period under evaluation, as could be checked during the on-site visit.

In the table below are depicted the main plant´s equipment checked during the verification (physical inspection and photographical record):

Turbine	
Number of units	*2*
Type	*Francis Turbine*
Design flow per turbine	*3,500 l/s*
Design capacity per unit	*5.098 MW*
Nominal speed	*720 rpm*
Power Generator	
Number of units	*2*
Capacity per unit	*5,600 kVA / 4,940 kW*
Voltage	*6,900 V*
Frequency	*60 Hz*

APPLUS also reviewed the generation data logs and plant´s minutes /13, 17/ to confirm the consistency of the information on energy generation declared in the ER´s spreadsheet /18/ and MR/3/ as well as in the energy bills /19/ applicable to the 1st MP and report of shutdowns (MR, table 6) and found all of them aligned and without material misstatements.

As result of the physical inspection, interviews and review of project´s information, APPLUS can confirm that there are not differences between the project´s equipment depicted in the registered PDD /1/ and the one implemented and working at the time of the 1st verification.

5.1.2 Monitoring plan implementation and monitoring report

As part of the activities performed during the onsite visit, APPLUS held interviews with the officials responsible of the operation and maintenance of the power plant and confirmed that the project activity during the 1st MP has consisted in the generation of electrical energy to the Colombian Power System (SIN as per its acronym in Spanish). The assessment of the operation logbooks and energy invoices /13, 17, 19/ confirmed that monitoring procedures are

implemented onsite or remotely using tele-metering technology. Also, through physical inspection /16/ It was confirmed that a main and backup meters are installed at the interconnection point of the project with the SIN /16/.

The meters installed are bi-directional, considering both the quantity of energy supplied by the project plant to the grid and the quantity of energy imported from the grid. Meters are read remotely from the control center using "Prime Read version 10 reading software", which allows query the status of the meters, consult their logs, download data, and store their readings in the database. Metering data backups are made every 15 days to preserve border data. The energy meters in the substation are read via dedicated software every 24 hours and the report is made within a maximum period of eight hours following the day of the operation. The above-mentioned confirmed the reliability of the monitoring performance of the project during the MP under evaluation.

5.1.2.1 Data and parameters

5.1.2.1.1 Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors

During the stages of desk review and also during the onsite visit, APPLUS held interviews with the consultants of the project activity (South Pole) in order to confirm the correct application of the parameters fixed at the time of the validation and found that all them were properly applied by the project in the ER´s spreadsheet /18/ as well as consistently depicted in the latest version of the MR /3/. No material findings were identified.

Ex-ante Parameter	***Means of verification***
$EF_{grid,BM,y}$	*APPLUS reviewed the registered PDD and confirmed that the only parameter established ex-ante by the PP was the built margin emission factor with a value of 0.2369 tCO2e/MWh.* *It is confirmed that this parameter (and its value) are the ones applied by the project along project´s documentation /1, 3, 18/following the guidelines of the CDM (TOOL07). No material findings on the application of this parameter were found.*

During the stages of desk review and onsite visit, APPLUS evaluated the correctness of the application and monitoring of the parameters established as ex-post for the project activity.

5.1.2.1.2 Data and parameters monitored

Below is depicted the assessment performed:

<table>
<tr><th>Ex-Post Parameter</th><th>Means of verification</th></tr>
<tr><td rowspan="3">$EG_{Zeus,y}$

Quantity of net electricity generation supplied by the project</td><td>Value applied
2022: 41,180 MWh. 2023: 45,818 MWh. 2024: 44,499 MWh

APPLUS confirmed the values of energy generation from the energy bills issued by the project /19/ and from the generation records /17/. No material findings were identified.</td></tr>
<tr><td>Source of data and Monitoring equipment
APPLUS visited the commercial frontier of the project and took photographical record /16/ of the energy meters under operation (same ones of the MP under evaluation). Both meters were found in good operational condition and physically protected of any miss intervention. Calibration certificates /15/ were reviewed and found correct (performance under operational levels with a calibration valid under a 4-year period).
<table>
<tr><th>Meter</th><th>Serial</th><th>Model</th><th>Brand</th><th>Calibration date</th><th>Accuracy</th></tr>
<tr><td>Main</td><td>51386024</td><td>ZMD402CT44.0459 S3</td><td>LANDIS & GYR</td><td>16/Nov/2021</td><td>0.2 S</td></tr>
<tr><td>Backup</td><td>51386022</td><td>ZMD402CT44.0459 S3</td><td>LANDIS & GYR</td><td>16/Nov/2021</td><td>0.2 S</td></tr>
</table></td></tr>
<tr><td>Applicable methodology and QA/QC
APPLUS reviewed the figures of energy generation from the operational data logs of the plant/17/ and cross-checked them with the ones of the energy bills/19/ and confirmed they have been monitored as per the Guidelines of the applicable methodology /6/. No material findings were raised. Calibration is performed as per the applicable Colombian Regulation (CREG 024) for energy meters reporting to the Colombian Power System.</td></tr>
<tr><td rowspan="3">$EG_{m,y}, EG_{k,y}$

Net electricity generated by power plant</td><td>Value applied
APPLUS interviewed the GHG Consultant of the project about the figures of energy generated by the power plants included in the calculation of the Operating Margin EF and found that those figures were directly taken from the official source SINERGOX. Data for 2022, 2023 and 2024 was directly downloaded and compared with the one in the ER´s spreadsheet/18/ and no material differences were found.</td></tr>
<tr><td>Source of data and monitoring equipment
Official web page of the Colombian Energy Market Manager XM: https://sinergox.xm.com.co/oferta/Paginas/Historicos/Historicos.aspx</td></tr>
<tr><td>Applicable methodology and QA/QC
Information of energy generation in Colombia is monitored and analyzed as per the Resolution CREG 038/2014 and cross-check by</td></tr>
</table>

Ex-Post Parameter	Means of verification
	multiple stakeholders of the energy market in order to ensure accuracy and consistency.
$FC_{i,m,y}, FC_{i,k,y}$ *Amount of fuel type consumed by power plant/unit*	***Value applied*** *APPLUS interviewed the GHG Consultant of the project about the figures of fossil fuel used by the plants connected to the Colombian Power included in the calculation of the Operating Margin EF (see ER´s spreadsheet of the project) and found that those figures were directly taken from the official source SINERGOX. Data for 2022, 2023 and 2024 was directly downloaded and compared with the one in the ER´s spreadsheet/18/ and no material differences were found.*
	Source of data and monitoring equipment *Official web page of the Colombian Energy Market Manager XM: https://sinergox.xm.com.co/oferta/Paginas/Historicos/Historicos.aspx*
	Applicable methodology and QA/QC *Information of energy generation and fossil fuels used in Colombia is monitored and analyzed as per the Resolution CREG 038/2014 and cross-check by multiple stakeholders of the energy market in order to ensure accuracy and consistency.*
$EF_{tCO_2,i,y}; EF_{CO_2,m,i,y}$ *CO2 emission factor of fuel type used*	***Source of data, monitoring equipment and value applied*** *CO2 EFs used by the project during the MP under assessment are the ones published by the Mining and Energy Planning Unit (official source). Figures and official source of information were reviewed by APPLUS and no material findings were identified.* *Fuel* / *tCO2/TJ* *Gas* 55.539 *Fuel oil* 80.460 *Natural gas* 55.539 *Diesel* 74.233 *Carbon* 88.136 *Kerosene* 73.940 *Crude oil* 77.842
	Applicable methodology and QA/QC *Figures applied as per the guidelines of AMS-I.D.: "Grid connected renewable electricity generation" Version 18.0./6/ and TOOL 7 /37/.*
$EF_{grid,\ OM,y}$	***Value applied*** *Year* / $EF_{grid,\ OM,y}$ *2022* 0.5954

<table>
<tr><th>Ex-Post Parameter</th><th>Means of verification</th></tr>
<tr><td>Operating margin emission factor</td><td><table><tr><td>2023</td><td>0.7005</td></tr><tr><td>2024</td><td>0.6971</td></tr></table></td></tr>
<tr><td></td><td>Source of data and monitoring equipment
APPLUS reviewed the ER´s spreadsheet of the project /18/, TAG: EF_OM and traced all the calculations done and figures used and confirmed that calculations have been done as per the TOOL 07/37/. No material findings in the calculation of the OM $_{EF}$ were identified.</td></tr>
<tr><td></td><td>Applicable methodology and QA/QC
Calculations done for the OM$_{EF}$ applicable to the 1st MP have followed the guidelines of AMS-I.D.: “Grid connected renewable electricity generation” Version 18.0./6/ and TOOL 7 /37/.</td></tr>
<tr><td>$EF_{grid,CM,y}$

Combined margin emission factor of the grid</td><td>Value applied<table><tr><th>Year</th><th>$EF_{grid,CM,y}$</th></tr><tr><td>2022</td><td>0.4161</td></tr><tr><td>2023</td><td>0.4687</td></tr><tr><td>2024</td><td>0.4670</td></tr></table></td></tr>
<tr><td></td><td>Source of data and monitoring equipment
APPLUS reviewed the ER´s spreadsheet of the project /18/, TAG: EF_CM and traced all the calculations done and figures used and confirmed that calculations have been done as per the TOOL 07/37/. No material findings in the calculation of the CM $_{EF}$ were identified.</td></tr>
<tr><td></td><td>Applicable methodology and QA/QC
Calculations done for the CM$_{EF}$ applicable to the 1st MP have followed the guidelines of AMS-I.D.: “Grid connected renewable electricity generation” Version 18.0./6/ and TOOL 7 /37/.</td></tr>
</table>

Additionally, during the on-site inspection a random sampling approach was done for the figures of energy generation for 2022 (July, Sep and Dec), 2023 (Jun, Oct and Dec) and 2024 (Feb, may and Aug) comparing the internal records (Operation Logbooks. Anexo 1_resumen generacion_es) against the energy bills issued by XM (Sinergox/ir a biblioteca/Carpeta Generación/Generación 2021/descargar/filtro por central/). No material findings were identified.

Considering all mentioned before, APPLUS confirms that:

a) *The project activity is implemented as per the registered PD/1/*
b) *The actual operation of the project activity is in line to the registered PD,*
c) *All the power generated by the project activity is supplied to national grid through the commercial frontier declared in the PD and measured by the power meters depicted in the latest version of the MR*

d) *No post-registration changes were identified by the VVB or requested by the project in the current monitoring period.*
e) *Monitoring arrangements committed by the project have been properly followed, without material deviations during the 1st MP.*

5.1.2.2 Environmental and social effects of the project activities

During the on-site visit the responsible of the environmental area presented the generalities of the environmental legal compliance reports /30, 31, 33/ issued to the Environmental Legal Authority responsible for the issuance of the Environmental License /31/. No material findings were raised by the Environmental Local Authority Corantioquia – Territorial Tahamies.

On the other hand, it was explained that one the requirements committed by the project was a program to support productive projects in the area of influence of the project which is under construction. Also, it was reviewed the result of the fauna Monitoring program/33/ developed by the project and it was found correct.

5.1.2.3 Procedures for the management of GHG reductions or removals and related quality control for monitoring activities

During the onsite visit APPLUS held several interviews with SHP Zeus´s officials responsible for the operation, maintenance and environmental follow-up of the project, which are responsible of the main data gathering for the calculation of the project´s ERs as well as the evidence for the preparation of the MR and receiving of the GHG verification audit. Internal procedures followed are part of the project´s management system /26/ and roles and responsibilities are also defined /24/.

On the other hand, the preparation of the MR is done by an external well-known consultant like South Pole, which puts in place all its experience and organizational structure for the effective documentation of the project.

Given the above mentioned, APPLUS confirms the appropriateness of the procedures implemented by the project for the monitoring of the project´s parameters as well as for the calculation of the GHG ERs (responsibility of a third party – South Pole), and their consistency with the monitoring plan and the verification requirements applicable to the Project /1, 4, 5, 6, 9, 10/.

5.1.2.4 Description of the methods defined for the periodic calculation of GHG reductions or removals and leakage

APPLUS interviewed the staff of South Pole and confirmed the existing relationship between them and SHP Zeus for the technical support of the GHG project´s documentation. This relationship plus the internal procedures in place for ensuring the monitoring of all projects´ parameters and co benefits are deemed enough for ensuring the periodic calculation of ERs of the project and continuous positive environmental impact.

5.1.2.5 Assignment of roles and responsibilities for monitoring and reporting the variables relevant to the calculation of reductions or removals

APPLUS had access to the internal procedures establishing general roles and responsibilities of the staff working in the SHP Zeus /20, 21, 24, 25, 26/ for monitoring and reporting the parameters applicable to the project activity and found them accessible, clear and operational. No material findings on this matter were raised.

5.1.2.6 Procedures related whit the assessment of the project contribution whit the Sustainable Development Goals (SDGs)

During the on-site inspection and also during the desk review of the project, the audit team confirmed the following results revolving around the SDGs:

- ***SDG 7 Affordable and Clean Energy** / SDG 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix / SDG 7.2.1 Renewable energy share in the total final energy consumption.*
- ***SDG Goal 13 Climate Action** / SDG 13.2 Integrate climate change measures into national policies, strategies and planning / SDG 13.2.2 Total greenhouse gas emissions per year.*

*The audit team checked and confirmed that the project activity generated during the 1st MP **134,498 MWh** of renewable energy and supplied it to the Colombian Power System (SIN as per its acronym in Spanish). Additionally, the project reduced **60,641 tCO2e**. Through this way, project contributes to the SDG 7.2 and SDG 13.2.2.*

- ***SDG Goal 8 Decent Work and Economic Growth** / SDG 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value / 8.5.2 Unemployment rate, by sex, age, and persons with disabilities.*

The audit team checked during the onsite visit and confirmed that project has created 13 fix jobs during the operation /21/. Through this way, project contributes to the SDG 8.5. target, and the relevant indicator is SDG 8.5.2.

Additionally, APPLUS reviewed the Environmental Compliance Reports /33/ issued by SHP Zeus to the Local Environmental Authority Corantioquia – Territorial Tahamies and confirmed the compliance and alignment of the parameters evaluated, against the approach requested by the BCR SDG Tool and did not identify any material misstatement.

5.1.2.7 Procedures associated with the monitoring of co-benefits of the special category, as applicable

NA.

5.2 Quantification of GHG emission reductions and removals

5.2.1 Baseline or reference scenario

Hereafter is depicted the methodological approach evaluated and confirmed by APPLUS during the audit for the establishment of the baseline scenario applicable to the 1st MP of the project activity:

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/:

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

Equation 1 (Equation 1 AMS-I.D)

Where:

BE_y	=	Baseline emissions in year y (tCO2/yr)
$EG_{PJ,y}$	=	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)
$EF_{grid,CM,y}$	=	Combined margin CO2 emission factor for grid-connected power generation in year y calculated using the latest version of the CDM "Tool to calculate the emission factor for an electricity system" (tCO2/MWh)

According to Equation (2) of AMS-I.D. (version 18.0), if the project activity is the installation of a greenfield power plant, then:

$$EG_{PJ,y} = EG_{PJ,facility,y}$$

Equation 2 (Equation 2 AMS-I.D)

Where:

$EG_{PJ,facility,y}$	=	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh).

The combined margin emission factor ($EF_{grid,CM,y}$) was calculated following the guidance in the "Tool to calculate the emission factor for an electricity system" (version 7.0)/37/.

Baseline emissions evaluated during the verification, depicted in the latest version of the MR /3/ and calculated in the ER´s spreadsheet /18/of the project are summarized below:

Year	$EG_{PJ,y}$(MWh)	$EF_{grid,CM,y}$	BE_y (tCO_2e)
2022	44,180.46	0.4162	18,386
2023	45,818.31	0.4687	21,475
2024	44,498.98	0.4670	20,781

Total during the 1st MP	***60,641 tCO2e***

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/: Project emissions (for most renewable energy project) and leakage (since the project activity has no reservoir) are neglected, hence:

ERs (1st MP) = ***60,641 tCO2e***

During the onsite visit Applus cross-checked the MR with the latest version of the methodology AMS I.D and confirmed that the formula used is correct. No material findings were raised.

All the official energy bills /19/ were presented by the PP and reviewed by Applus during the onsite visit and any of the figures reported was different neither of the ones from the operational records /17/ nor the ones declared in the MR/3/ and ER´s spreadsheet /18/. No material findings were identified.

Related to the GHG emission factor, Applus reviewed the calculation done by South Pole /18/ and traced all the steps followed for the estimation of the Build Margin Emission Factor during the validation of the project (estimated ex ante as 0,2369 tCO2e/year) applicable for the 1st crediting period of the project. Applus confirmed the consistent application of the EF_{BM} for the estimation of the Combined Margin EF during the 1st verification of the project and found it correct. The Operating Margin EF was established ex-post by the project and consistently calculated for 2022, 2023 and 2024 (0,5954, 0,7005 and 0,6971 tCO_2e respectively) in the ER´s spreadsheet/18/ (see tag: EF_OM). The Combined Margin Emission Factor (2022-0,4161 tCO2e, 2023 0,4687 tCO2e- and 2024- 0,4670 tCO2e), build and operating margins were established as per the latest version of the Tool to Calculate the EF for an Electricity System /37/. No material findings were identified.

As result of the assessment of the applied methodology/6/ and related tools/37/, and cross check of the guidelines against the results achieved, Applus can confirm the following:

- *Assumptions, data, and factors used to estimate baseline emissions are transparent and supported by appropriate evidence and official figures from the energy generation /17, 19/.*
- *No national, sectoral, and regulatory policies /38/ applicable to the Colombian energy context have affected the baseline during the 1st MP.*
- *All formulas, parameters, and factors applied are consistent with the approved methodology. Additionally, official sources, such as XM for electricity generation and fossil fuel consumption data in Colombia, are public and were cross-checked during the verification exercise*

5.2.2 *There is full coherence of the results achieved during the 1st MP with ISO 14064-2 regarding data quality, traceability, and consistency of the baseline estimation process.Conservative approach and uncertainty management*

The verification performed by APPLUS is in conformance with ISO 14064-2:2019 with a reasonable level of assurance. The verification process applied a materiality threshold of ±5% in the assessment of the GHG Report and the accompanying GHG statement. This threshold was used to determine whether any identified errors, omissions, or misstatements could be considered material in the context of the overall greenhouse gas quantification and reporting. By applying this level of materiality, the verification ensures that only discrepancies significant enough to potentially influence the decisions of stakeholders are considered material findings, while minor deviations that fall below this threshold are deemed immaterial. The application of the ±5% materiality level is consistent with internationally recognized verification practices and provides a reasonable balance between the accuracy of the data and the practical limitations inherent in GHG monitoring and reporting. As a result, the verification team was able to provide a reasonable level of assurance that the GHG Report and GHG statement are free from material misstatement and present a fair and reliable representation of the project's emissions and reductions in accordance with the applicable standards.

Given the abovementioned, APPLUS confirms that a conservative approach and uncertainty management have been followed during the 1st verification of the project activity applying ISO and BCR standards /4, 5, 6, 10/.

At the level of activity data, figures of energy generation reported by the project/18/ were cross-checked against the official energy invoices /19/ and confirmed by Applus during the site visit. Additionally, Applus entered to the SCADA system and confirmed that data capturing and transferring is automatic, with doble check by the software, eliminating any opportunity of wrong reporting. Also, Applus reviewed the calibration certificates /14, 15/ and operational logbooks /17/ of the plant and confirmed its correct operation under normal conditions (precision of 0.2%) during the MP. No material findings were raised.

5.2.3 *Leakage and non- permanence*

Applus reviewed the latest version of the tool for permanence and risk management /39/ where it is established that for projects in the energy sector a 10% of the total quantified GHG emission reductions for each verified period will be automatically discounted. On the other hand, leakage are considered neglected for renewable energy as per the applicable methodology /6/. No material findings were identified.

5.2.4 *Mitigation result*

5.2.4.1 GHG baseline emissions

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/:

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

Equation 3 (Equation 1 AMS-I.D)

Where:

BE_y = Baseline emissions in year y (tCO2/yr)
$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)
$EF_{grid,CM,y}$ = Combined margin CO2 emission factor for grid-connected power generation in year y calculated using the latest version of the CDM "Tool to calculate the emission factor for an electricity system" (tCO2/MWh)

According to Equation (2) of AMS-I.D. (version 18.0), if the project activity is the installation of a greenfield power plant, then:

$$EG_{PJ,y} = EG_{PJ,facility,y}$$

Equation 4 (Equation 2 AMS-I.D)

Where:

$EG_{PJ,facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh).

The combined margin emission factor ($EF_{grid,CM,y}$) was calculated following the guidance in the "Tool to calculate the emission factor for an electricity system" (version 7.0)/37/.

Baseline emissions evaluated during the verification, depicted in the latest version of the MR /3/ and calculated in the ER´s spreadsheet /18/of the project are summarized below:

Year	$EG_{PJ,y}$(MWh)	$EF_{grid,CM,y}$	BEs,y (tCO2e)
2022	44,180.46	0.4162	18,386
2023	45,818.31	0.4687	21,475
2024	44,498.98	0.4670	20,781
Total during the 1st MP			**60,641 tCO2e**

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/: Project emissions (for most renewable energy project) and leakage (since the project activity has no reservoir) are neglected, hence:

ERs (1st MP) = **60,641 tCO2e**

During the onsite visit Applus cross-checked the MR with the latest version of the methodology AMS I.D and confirmed that the formula used is correct. No material findings were raised.

All the official energy bills /19/ were presented by the PP and reviewed by Applus during the onsite visit and any of the figures reported was different neither of the ones from the operational records /17/ nor the ones declared in the MR/3/ and ER´s spreadsheet /18/. No material findings were identified.

Related to the GHG emission factor, Applus reviewed the calculation done by South Pole /18/ and traced all the steps followed for the estimation of the Build Margin Emission Factor during the validation of the project (estimated ex ante as 0,2369 tCO2e/year) applicable for the 1st crediting period of the project. Applus confirmed the consistent application of the EF_{BM} for the estimation of the Combined Margin EF during the 1st verification of the project and found it correct. The Operating Margin EF was established ex-post by the project and consistently calculated for 2022, 2023 and 2024 (0,5954, 0,7005 and 0,6971 tCO_2e respectively) in the ER´s spreadsheet/18/ (see tag: EF_OM). The Combined Margin Emission Factor (2022-0,4161 tCO2e, 2023 0,4687 tCO2e- and 2024- 0,4670 tCO2e), build and operating margins were established as per the latest version of the Tool to Calculate the EF for an Electricity System /37/. No material findings were identified.

As result of the assessment of the applied methodology/6/ and related tools/37/, and cross check of the guidelines against the results achieved, Applus can confirm the following:

- *Assumptions, data, and factors used to estimate baseline emissions are transparent and supported by appropriate evidence and official figures from the energy generation /17, 19/.*
- *No national, sectoral, and regulatory policies /38/ applicable to the Colombian energy context have affected the baseline during the 1st MP.*
- *All formulas, parameters, and factors applied are consistent with the approved methodology.*

There is full coherence of the results achieved during the 1st MP with ISO 14064-2 regarding data quality, traceability, and consistency of the baseline estimation process.

5.2.4.2 GHG project emissions

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/: Project emissions (for most renewable energy project) are neglected.

5.2.4.3 GHG leakage

As per Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0./6/leakage (since the project activity has no reservoir) are neglected.

5.2.4.4 Ex-ante vs Ex-post Comparison of GHG emission reductions/removals

	Estimated GHG emission reductions or removals (tCO2e)	Net GHG emission reductions or removals (tCO2e)
Emission reductions / 2022 (tCO_2)	14,528	18,385
Emission reductions / 2023 (tCO_2)	23,156	21,475
Emission reductions / 2024 (tCO_2)	23,156	20,781

APPLUS reviewed the remarks on difference from estimated value in the registered PD and MR under evaluation and confirm differences of +26%, -7% and -10% for 2022, 2023 and 2024 which respond to variations due to the materialization of "El Niño" (2022) and "La Niña" (2023-2024) phenomena, affecting the available waterflow for energy generation. Abovemebtioned variations are deemed reasonable and explainable in the current context of climate chang and not attributable to misapplication of the methodology /6/ or BCR guidelines /4, 5/.

5.3 Sustainable development safeguards (SDSs)

Applus reviewed the latest version of the Sustainable Development Safeguards (SDSs) Tool /40/in order to confirm its correct application for the project during the 1st verification. Below are listed the environmental impacts applicable to the project implementation as well as the mitigation/compensation measure implemented by the project and confirmed by the CB:

Potential risk	**Project risk**	**Mitigation or preventive action**
Land use: Resource Efficiency and pollution prevention management		
Land degradation or soil erosion, leading to the loss of productive land.	*The project will remove vegetation for construction activities and affect geotechnical and erosion stability.*	*PMA_MF_01_01 Study and analysis of geotechnical stability and erosive processes.* *PMA_MF_01_02 Control and management of erosion stability.* *PMA_MF_01_03 Management of uncovering and soil intervention by the project.*
Air and water pollution resulting from project-related emissions, discharges, or improper waste disposal practices.	*The project will generate air pollution due to construction activities.* *The project will generate wastewater from the*	*PMA_MF_07_01 Emissions of particulate matter, gases and vapors control and management.* *PMA_MF_07_02 Explosives and blasting management.*

Potential risk	Project risk	Mitigation or preventive action
	construction and operation of the plant.	PMA_MF_05_01 Management of domestic liquid waste. PMA_MF_05_02 Management of construction and industrial liquid waste. PMS_MF_04_01. Monitoring to water purification system.
Inadequate waste management practices, leading to the improper disposal of project-related waste and potential environmental harm.	The project will generate waste from the construction, operation, and closure activities.	PMA_MF_02. Construction materials management. PMA_MF_03. Fuels and oils waste management. PMA_MF_04. Comprehensive waste management plan (domestic solid waste, hazardous waste, surplus construction, and excavation waste)
Deforestation or degradation of forested areas impacting carbon sequestration, biodiversity, and ecosystem services.	The project will remove vegetation for construction activities and affect the nearby landscape.	PMA_MB_01:_01 Vegetation removal and forestry management. _02 Forrestal compensation, ecology restoration, and landscape management.
Water		
Water pollution, including contamination of rivers, lakes, oceans, or aquifers as a result of project-related activities such as emissions, spills, or waste disposal.	The project will generate wastewater from the construction and operation of the plant.	PMA_MF_05. Liquid waste management (domestic water waste, and construction water waste). PMS_MF_04_01. Monitoring to water purification system.
Disrupting aquatic ecosystems, including marine life, river ecosystems, or wetlands due to the changes in water	The project might disrupt the RioGrande river ecosystem during the construction phase.	PMA_MB_03_01 Complementary studies of the aquatic fauna and its eating habits. PMA_MB_03_02 Ichthyofauna rescue plan.

Potential risk	Project risk	Mitigation or preventive action
quality, temperature or flow patterns?		
Biodiversity and ecosystems		
Negatively impacting endangered or threatened species within the project area, either directly or indirectly through habitat changes or other disturbances.	The project might impact the local fauna.	No endangered or threatened species were found during the Environmental Impact Assessment; nevertheless, the project proposed the next management plans: PMA_MB_02_01 Management plan for endangered or threatened species. PMA_MB_02_02 Strategy for education campaign on environmental sensibilization and fauna protection.
Climate Change		
The project didn't identify any potential risk to increase climate change. The project aims to contribute to climate change adaptation by generating electricity from a renewable source and reducing the Colombian's reliance on fossil fuels.		

APPLUS confirms that the mitigation measures are in place and they are aligned with the applicable BCR guidelines /3, 4/and are operational during the 1st verification of the project. No material findings were identified.

5.4 Project contribution whit the Sustainable Development Goals (SDGs)

During the on-site inspection and also during the desk review of the project, the audit team confirmed the following results revolving around the SDGs:

- ***SDG 7 Affordable and Clean Energy** / SDG 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix / SDG 7.2.1 Renewable energy share in the total final energy consumption.*
- ***SDG Goal 13 Climate Action** / SDG 13.2 Integrate climate change measures into national policies, strategies and planning / SDG 13.2.2 Total greenhouse gas emissions per year.*

*The audit team checked and confirmed that the project activity generated during the 1st MP **134,498 MWh** of renewable energy and supplied it to the Colombian Power System (SIN as*

per its acronym in Spanish). Additionally, the project reduced ***60,641 tCO2e****. Through this way, project contributes to the SDG 7.2 and SDG 13.2.2.*

- ***SDG Goal 8 Decent Work and Economic Growth*** */ SDG 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value / 8.5.2 Unemployment rate, by sex, age, and persons with disabilities.*

The audit team checked during the onsite visit and confirmed that project has created 13 fix jobs during the operation /20/. Through this way, project contributes to the SDG 8.5. target, and the relevant indicator is SDG 8.5.2.

In conclusion, during the different stages of the verification performed by APPLUS to the project activity, SDGs contributions have been assessed, cross-checked and confirmed. No material misstatements were identified. Below are listed the applicable SDGs, and the Means of Verification (MoV) applied:

SDG	***SDG Indicator***	***Project Contribution***	***MoV***
7 Affordable and Clean Energy	*7.2.1. Renewable energy share in the total final energy consumption.*	*Zeus Hydroelectric Plant supplied 134,497.75 MWh of renewable energy to the Colombian national grid during 2022–2024.*	*Interviews, physical inspection and document review /12, 13, 14, 15, 16, 17, 19/.*
8 Decent work and economic growth	*8.5.2 Unemployment rate, by sex, age, and persons with disabilities.*	*The project generated temporary jobs for both women and men during construction (235), as well as permanent jobs for the operation and maintenance (13) of the Zeus Hydroelectric Plant for local people in its area of direct influence, contributing to the region's economic growth.*	*Interviews, physical inspection and document review /20, 21, 23, 24, 25, 26, /.*
13 Climate Action	*13.2.2 Total greenhouse gas emissions per year.*	*The Zeus Hydroelectric Plant supplied 48,832 MW per year of renewable energy to the Colombian national grid, reducing 66,641 tCO2 by displacing fossil-fuel-based power plants.*	*Interviews, physical inspection and document review /3, 12, 13, 14, 15, 16, 17, 18, 19/.*

5.5 Climate change adaptation

During the verification it was possible for APPLUS to confirm that many environmental benefits result from the implementation of the project "Zeus Hydroelectric Plant" that collaborate in the climate change adaptation of the national policies indicated in the "PNACC (National Plan for Adaptation to Climate Change of 2016):

- *Increased availability of clean energy from small hydroelectric power like an energy source that relies on water flow to generate electrical energy. This means it does not deplete the water resource, making it a renewable energy source. Zeus Hydroelectric Plant reduces the reliance on fossil fuels, significantly contributing to reduce greenhouse gas emissions. Hydroelectric plants provide a clean and sustainable energy source, essential in mitigating climate change impacts.*
- *Replacing fossil fuels into the power grid: Zeus helps reduce the reliance on fossil fuels for energy generation. Hydroelectricity can provide a stable and sustainable energy supply as Colombia transitions from fossil fuel-based power generation to cleaner alternatives. This transition helps decrease the overall carbon footprint of the energy sector.*
- *Stabilizing energy supply with a diversification of the energy production: Hydroelectricity can provide a stable and sustainable energy supply and broadens the range of technologies used to produce energy.*

5.6 Co-benefits (if applicable)

NA. The project does not intend to achieve any of the special co benefit's categories in biodiversity conservation, community benefits, and gender equity.

5.7 REDD+ safeguards (if applicable)

NA. The project activity is not a REDD+ project.

5.8 Double counting avoidance

APPLUS confirmed that the project has not been neither rejected from other GHG Programs, nor registered. APPLUS applied the BCR Tool "Avoiding Double Counting (ADC) /9/ and reviewed the following GHG Programs and did not identify rejections or participations:

- *Gold Standard*
- *Verra (VCS)*
- *ACR*
- *Cercarbono*
- *ColCX*
- *GCC*

- General Google Search (SHP Zeus – GHG)

No material findings were identified.

5.9 Compliance with Laws, Statutes and Other Regulatory Frameworks

During the onsite visit, APPLUS interviewed the staff responsible of operation, environmental compliance and management of the project and confirmed the alignment of the project with the following applicable legal framework:

- Law 99 of 1993
- Laws 142 (Public Services Law) and 143 (Electricity Law) of 1994
- Article 9 of Decree 2041 of 2014
- Resolution CREG 038 of 2014

Additionally, PP presented the following legal approvals granted to the project for its environmental, technical and social license to operate:

- CREG 080 Compliance Declaration /22/
- Official INCODER´s certification – indigenous communities ´existence – Municipality of Don Matias /27/
- Official Ministry of Interior´s certification – indigenous communities ´existence – Municipality of Don Matias /28/
- Land tenure records (sale and easement contracts) for SHP Don Matias ´nearby lands /29/
- Approved Environmental Impact Assessment for SHP Zeus /30/
- Environmental License for SHP Zeus /31/
- Environmental management plan approved for SHP Zeus /33/

The existence of the above listed permits, as well as the internal procedures /23, 26/ in place by the project allow APPLUS to conclude the full compliance of the project with the applicable laws, statutes and other regulatory frameworks. No material findings were identified.

5.10 Carbon ownership and rights

During the interviews held during the onsite visit, as well as document review, it was possible for APPLUS confirm the following:

Central Hidroeléctrica Zeus S.A.S. E.S.P. is constituted and certified by the existence and legal representation based on the registration made in the commercial registry of the Chamber of Commerce of Medellín for Antioquia on October 19, 2022. The company's main purpose is the promotion, development, and execution, either on its own behalf or on behalf of third parties of hydroelectric generation projects; as well as the administration, operation,

and maintenance of the resulting hydroelectric plants for the generation and commercialization of electrical energy.

The Environmental License for the Zeus Hydroelectric Power Plant/31/ was granted through resolution No. 1811-6435 of November 2018, and likewise, the concession of water, discharge permit, among other authorizations and responsibilities included therein.

All carbon rights will remain within Central Hidroeléctrica Zeus S.A.S. E.S.P for the project length from 30-September-2020 to 29-September-2041.

5.11 Risk management

During the onsite visit Applus requested to the PP due explanations about how it was ensured that project benefits (energy generation and related environmental and social cobenefits) were maintained and ensured during the monitoring period under evaluation as per the requirements of the Biocarbon Tool – Permanence and Risk Management (version 2.0)/39/.

Revolving around the long-term maintenance of GHG mitigation results, it was confirmed that there is a hydroelectrical potential allowed by the local environmental authority Corantioquia/31/ to be used for energy generation (mitigation action that results in the GHG ER´s), for a period longer than the crediting period of the project activity, ensuring the long-term GHG ER´s. No material findings were raised.

Related to the management of avoidable or unavoidable reversals and non-permanence risk, Applus confirms that is not possible neither to have negative GHG emissions in any monitoring period, nor the materialization of a risk of non-permanence given that the project activity involves the displacement of electricity that would have been produced from fossil fuels in Colombia's energy matrix by electricity generated from a run-of-river hydroelectric power plant. In the worst operational case, the GHG ER´s will be zero (no generation) but never negative. The permanence of the energy generation was confirmed through the review of the energy generation records /17/ and energy bills /19/. No material findings were raised. Additionally, VVCs issued for the Zeus Hydroelectric Power Plant will expire three (3) years after the end of the quantification period of the GHG Project.

5.12 Stakeholder engagement and consultation

During the onsite visit APPLUS requested all the due diligence done by the project activity to keep in place and effective stakeholder engagement during the MP under evaluation. PP presented all the meeting´s calls, acts, attendance list as well as responses given to any request /32/. No material findings were identified. Below are listed the stakeholder engagement activities done during the MP:

Activity	Date	Place

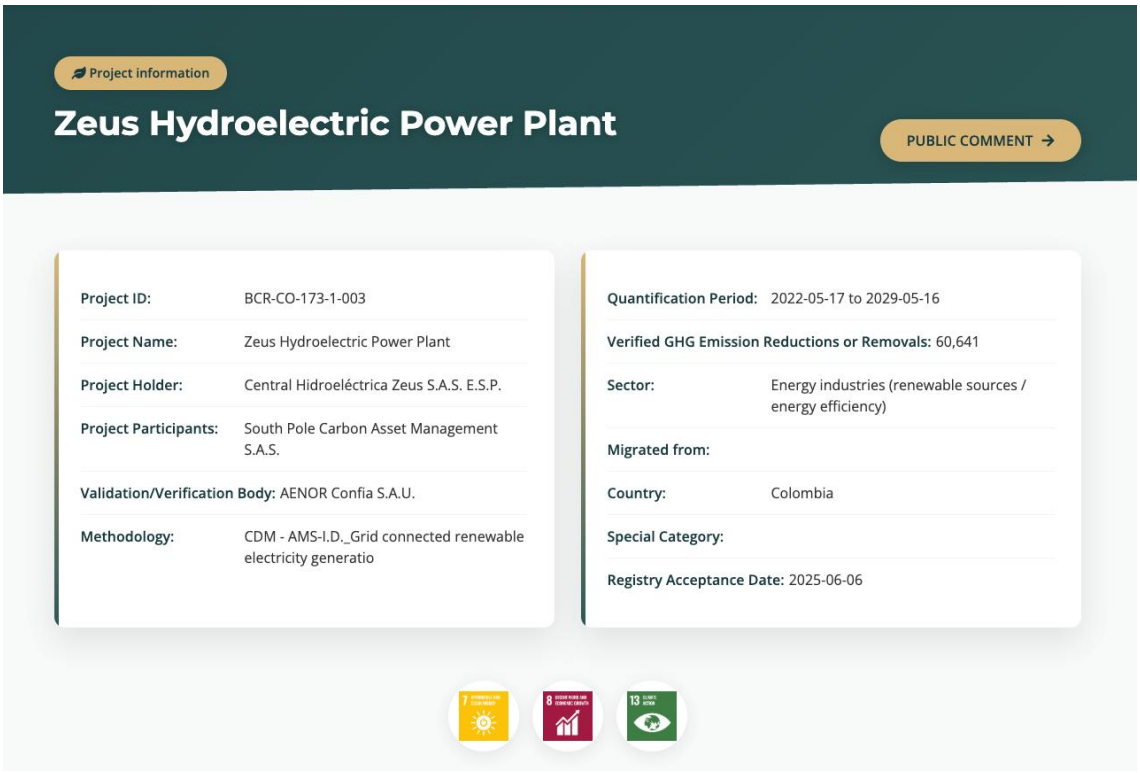
Operation phase briefing and environmental awareness session with communities.	*October 17, 2024*	*Community hall of the Pan de Azúcar community.*
	October 16, 2024	*San Isidro lower section educational institution.*
Operation phase briefing and environmental awareness session with Local Authorities of Don Matias.	*October 17, 2024*	*UMATA office of Don Matias.*
Operation phase briefing and environmental awareness session with Local Authorities of Santa Rosa de Osos.	*December 04, 2024*	*Secretariat of Agriculture and Natural Resources of Santa Rosa de Osos.*

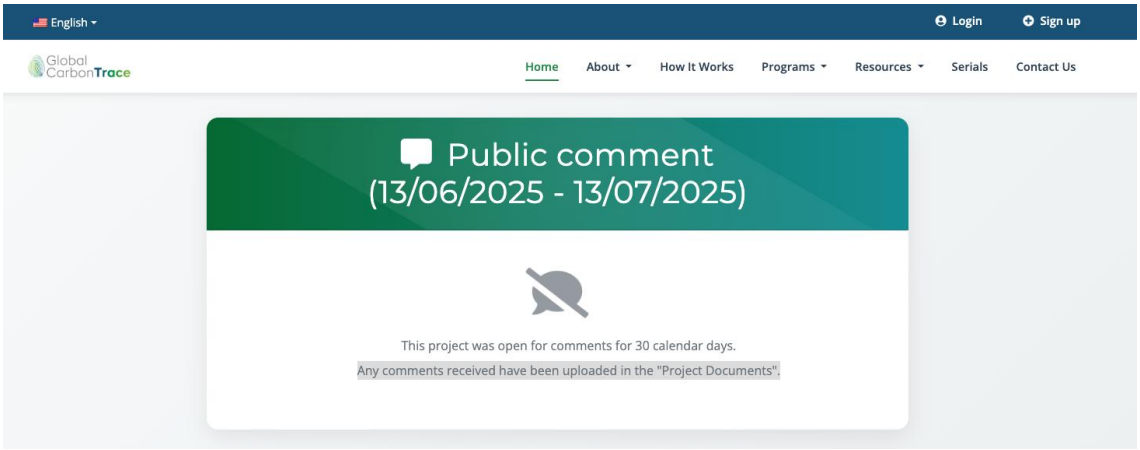
Municipality	***Stakeholders***	***Date***	***Assistants***	***Place***
Don Matias	*Local Authorities*	*October 16, 2024*	*4*	*UMATA office Don Matias.*
	Local communities	*October 17, 2024*	*8*	*Community hall of the Pan de Azúcar community.*
Santa Rosa de Osos	*Local Authorities*	*December 04, 2024*	*5*	*Secretariat of Agriculture and Natural Resources of Santa Rosa de Osos.*
	Local communities	*October 16, 2024*	*17*	*San Isidro lower section educational institution.*

Stakeholder	***Request***	***Response***
Mayor's Office of the Municipality of Don Matías.	*The maintenance of 3 km of the road connecting the main road to the Bellavista district, in addition to the construction of 220 meters of concrete track within the project's area of influence.*	*Due to the condition of the roads within the project's area of influence, the developer decided not to limit the work to the 3 km of road maintenance committed to the municipality. Instead, maintenance was carried out 10 km from the entrance to the powerhouse of the hydroelectric plant. In addition, the 220 meters of concrete track were constructed as agreed.*
Rural Educational Institute Presbítero Antonio José Cadavid Chaverra, Pan de Azúcar campus.	Requests the donation of a pressure washer for cleaning tasks at the educational facility.	*The pressure washer was delivered on June 2, 2023, along with a training session on its proper use.*

After assessing all the comments received and responses and management given by the PP/32/ It is Applus´opinion that the project proponent has adequately considered these comments. Evidence of the management done (confirmed by Applus) is listed in reference /32/.

On the other hand, Applus consulted the Global Carbon Trace Platform (https://globalcarbontrace.io/public-consultation-form/78) and confirmed that no comments were received during the 30 days consultation period.





5.12.1 Public Consultation

During the onsite visit APPLUS requested all the due diligence done by the project activity to keep in place and effective consideration of the comments received during the MP under evaluation. PP presented in the MR a list of the comments as well as the original communications (mainly by email and phone calls) as well as the responses given /32/. No material findings were identified.

Below are listed the comments received and responses given:

Comment/Questions	Date	Stakeholder	Response
Request to share the presentation and the environmental management plan.	*October 16, 2024*	*UMATA Don Matias*	*The relevance of sharing the information is evaluated.*
Questions are asked about electricity production and the technical operation of the hydroelectric power plant.	*October 16, 2024*	*UMATA Don Matias*	*The questions are addressed, and the operation of the plant is explained.*
A question is asked about the timing of previous socialization meetings.	*October 17, 2024*	*Don Matias community*	*The question is answered regarding the species that must be conserved in the project's area of impact.*
The community asks about the destination of the resources collected by the project.	*October 17, 2024*	*Don Matias community*	*It is explained that the resources paid for water use are made directly to CORANTIOQUIA, which is the entity responsible for their management.*
The community asks about the destination of the resources collected by the project.	*October 16, 2024*	Santa Rosa de Osos Community	*It is explained that the resources paid for water use are made directly to CORANTIOQUIA, which is the entity responsible for their management.*
Request to share the environmental management plan.	*December 04, 2024*	*Secretariat of Agriculture and Natural Resources of Santa Rosa de Osos*	*Attendees are shown how to request the Environmental Management Plan through the implemented PQRS system.*

APPLUS deems as correct and effective the management given by the project to the public consultations raised during the 1st verification of the project.

6 Internal quality control

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

The independent technical reviewer may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before the request for issuance is submitted to BCR. The final decision is taken by the APPLUS ´approval. Potential findings raised during the verification can be classified as follows:

CAR: Corrective Action Request

Corrective action requests are major non-conformities that must be raised when there is non-compliance with a requirement of the standard, national regulation or GHG program. CARs may arise from (among others):

a) *Material misstatement: One that may affect the decision of the intended user (ISO 14064-3:2019).*
b) *Any situation that may influence the ability of the project to achieve additional, measurable, and verifiable GHG emission, reductions and/or removals.*
c) *Any situation of risk that GHG emissions, reductions and/or removals cannot be monitored and/or calculated.*

CL: Clarification Request

Clarifications should be raised when there is not sufficient information in the documentation or annexes to determine whether the applicable requirements have been met.

FAR: Forward Action Request

They occur when inconsistencies related to the implementation of the mitigation initiative are identified, which cannot be corrected during the validation/verification process and require revision for the next verification period, but do not present a risk to the quantitative results of the project. In case of declaring a FAR, a coherent and adequate action plan should be included so that in the next verification period it can be reviewed by the VVB.

*In the **Annex 2** of this report are listed the findings raised during the verification, including the responses from the PP and the corresponding assessment by the VVB. APPLUS has allocated the following team for the verification of the project[2]:*

Name	Role
Mr. Raul G. Mitre, PhD	*Team Leader*
Mr. Cristian Grisales	*Auditor, team leader and technical expert in training*
Mr. Denny Xue	*Independent Technical Reviewer*

7 Verification opinion

APPLUS performed the 1st verification of the "Zeus Hydroelectric Power Plant" in Colombia for the monitoring period 17/05/2022 – 31/12/2024, conducting an on-site visit on 26/06/2025. The GHG Statement is the responsibility of the "Central Hidroeléctrica Zeus S.A.S. E.S.P". The verification was performed based on Verification criteria for projects set out in BCR Standard Version 3.4 and Host Party criteria, as well as per criteria given to provide for consistent project operations, monitoring and reporting.

The verification was performed by a team consisting of Raúl Mitre as the Team Leader, Cristian Grisales as the trainee: auditor, lead auditor and technical expert and Denny Xue as the ITR" and the project activity was checked against the applicable rules and regulations of BCR Standard Version 3.4 /5/.

APPLUS hereby confirms that the proposed project activity "Zeus Hydroelectric Power Plant" in Colombia, applied all relevant EB-guidance as the selected baseline and monitoring methodologies and the associated methodological tools have been applied correctly. Verification of the GHG statement was conducted in accordance with ISO 14064-3; 2019. The total emission reductions achieved by the project during the 1st monitoring period are estimated to be 60,641 tCO2e over the selected quantification period (17/05/2022-31/12/2024).

Given the abovementioned, APPLUS concludes that the results achieved during the 1st monitoring by the "Zeus Hydroelectric Power Plant" in Colombia, as described in the monitoring report version 4.0 /7/, dated on 26/11/2025:

- *Meet with all relevant host country criteria.*
- *Meet with all relevant guidelines and requirements of the BCR project activities*

[2] *Additional information of the Audit team can be found in **Annex 1** of this report.*

- *Were achieved by applying correctly the monitoring methodology "AMS-I.D.: Grid connected renewable electricity generation, Version 18.0"*
- *Are real, traceable and sufficiently justified in the latest version of the MR /7/*
- *Have achieved the claimed emission reductions in the MR (60,641 tCO2e)*

The verified GHG emission reductions over the 1st monitoring period of the project are:

Year	GHG Emission reductions (tCO2e)
17/05/2022-31/12/2022	18,405
01/01/2023-31/12/2023	21,475
01/01/2024-31/12/2024	20,781
Total	**60,641**

Therefore, APPLUS requests the issuance of the claimed VCC.

8 Verification statement

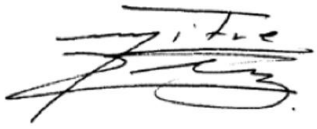
After concluding the 1st verification of the project "Zeus Hydroelectric Power Plant", APPLUS can confirm:

- *the intended users of the GHG declaration are any parties pursuing the acquisition of VCC for using them in the schemes recognized and authorized by BCR.*
- *The level of assurance of the validation is reasonable.*
- *The scope of this verification process is to confirm the total GHG emission reductions of 60,641 t CO2e achieved by the project during the first monitoring period from 17/05/2022 to 31/12/2024 as well as the compliance of the project with the BCR standard /4, 5/, based on the latest and registered PD version /1/, and the proper application of the monitoring methodology "AMS-I.D.: Grid connected renewable electricity generation, Version 18.0" /6/ and its related CDM tools and guidelines.*
- *The data and information supporting the GHG declaration are measured based on the official records of energy generation, plant logbooks, energy bills and interviews and evidence taken during the on-site visit to the project, and operational data (2022 and 2023) from the official Colombian source XM for the calculation of the Operating Margin.*
- *This assessment is accompanied by the GHG declaration made by the responsible part.*
- *Verification Team confirms that the proposed project activity "Zeus Hydroelectric Power Plant" in Colombia, applied all relevant EB-guidance as the selected baseline and monitoring methodology and the associated methodological tools have been applied correctly. Verification of the GHG statement was conducted in accordance with ISO 14064-3; 2019. The total emission reductions from the project for the 1st monitoring period have been confirmed to be 60,641 tCO2e. Also, APPLUS confirms that the project implementation has been done as described in the project document and the calculation of the baseline, the use of data and parameters for the calculation of the mitigation results, the GHG emission reductions and the monitoring plan were properly applied as*

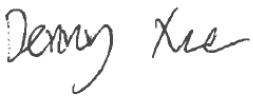
per the selected methodology. Based on the information we have assessed; we confirm that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. APPLUS confirms the real contribution of the project during the 1st monitoring period to the following SDG:

- *SDG 7 Affordable and Clean Energy,*
- *SDG Goal 8 Decent Work and Economic Growth,*
- *SDG Goal 13 Climate Action.*

Colombia, 26/11/2025



Raúl Mitre
Lead auditor



Denny Xue
Technical Reviewer

Karen Elizabeth Vega
Approver

9 Facts discovered after verification

NA. During the verification of the 1st monitoring period of the project APPLUS did not identify any fact with the potential of affect negatively neither the performance of the project nor the generation of VCC.

Annex 1. Competence of team members and technical reviewers

DETAILS OF THE AUDIT TEAM [1]

Name			**Role**		
Raul G. Mitre			Lead Auditor		
SS/TA Technical Expertise:	☒ Yes	☐ No	**Attendance to site visit:**	☒ Yes	☐ No

Name			**Role**		
Cristian Grisales			Auditor in Training, Lead Auditor in Training and Technical Expert in Training		
SS/TA Technical Expertise:	☒ Yes	☐ No	**Attendance to site visit:**	☒ Yes	☐ No

DETAILS OF THE TECHNICAL REVIEW TEAM [1] *(not attending to the site visit)*

Name			**Role**
Denny Xue			Technical Reviewer (TR)
SS/TA Technical Expertise:	☒ Yes	☐ No	

BACKGROUND INFORMATION OF THE TEAM

Name	**SHORT CV. BACKGROUND INFORMATION**
Mr. Raul G. Mitre, PhD	Mr. Raul G. Mitre is a professional with more than 17 years of experience in climate change and sustainability, specializing in Monitoring, Reporting and Verification (MRV) evaluating more than 300 projects in more than 20 countries all over the globe. Raul has a degree in Industrial Administration, specializing in productivity and quality from the National Polytechnic Institute of Mexico. He holds a Master's degree in Quality Management from the University La Salle of México City, a master's degree in project management from the University Ramon Llull of Barcelona, a postgraduate degree in Integrated Management Systems from the University of Wismar in Germany, an MBA from the University La Salle of Andorra and a PhD in Sustainability - Climate Change with the Pan American Center for Higher Education in Mexico. He is also an international auditor of ISO 9001 (quality), ISO 14001 (environment), ISO 45001 (occupational safety), ISO 37001 (anti-bribery), ISO 50001 (energy), ISCC (International Sustainability Carbon Standard and RSB (Roundtable of Sustainable Biomaterials). Currently he is associated with NOVA CERT, LLC (Applus+ Certification's Outsourced Entity). Mr. Raul G. Mitre is based in Germany. Mr. Raúl G. Mitre participates as part of the Audit Team as Lead Auditor and Technical Expert for the assessment.

[1] Applicable roles: ***LA*** (Lead Auditor) / ***A*** (Auditor) / ***TR*** (Technical Reviewer) / ***OBS*** (Observer) / ***SUP*** (Supervisor). Roles with the "/T"letters added at the end of the used abbreviation shall be understood as personnel in training.

Mr. Cristian Grisales	Mr. Cristian is Electrical Engineer with a Masters in Renewable Energies. He has 16 years of professional experience in issues related to renewable energy, energy efficiency and climate change. Lead auditor of ISO Standards 9001, 50001 and ISO 14064 (1, 2 and 3). Experience in accreditation of VVB under ISO 14065 and ISO 17029. He is a seasoned expert in climate change mitigation, with international experience and specialization in Monitoring, Reporting, and Verification (MRV). He has evaluated more than 90 projects across Latin America. Currently he is associated with NOVA CERT, LLC (Applus+ Certification's Outsourced Entity). Mr. Cristian is currently based in Bogotá, Colombia. Mr. Grisales participates as part of the Audit Team as Auditor in Training, Lead Auditor-in-Training and Technical Expert-in-Training for the assessment.
Mr. Denny Xue	Mr. Denny Xue (Master's Degree in Environmental Engineering, Bachelor's Degree in Thermal Engineering) is an Auditor appointed by Applus+ Certification (LGAI Technological Center, S.A) for the GHG project assessment, auditing and technical review. He has more than 10 years of work experience in CDM/GS4GG/VCS project assessment and technical review with Applus+. Before he joined Applus+ Certification (LGAI Technological Center, S.A), he has been working for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. Mr. Denny Xue is based in Shanghai, China. Mr. Denny Xue participates as part of the Technical Review experts' panel.

Annex 2. Clarification requests, corrective action requests and forward action requests

Finding ID		*Type of finding*	*Corrective Action Request*	*Date 26/06/2025*
Section No.				
Annex 2				
Description of finding				
PP is requested to present the HCA requested in the FAR 1 during the validation of the project.				
Project holder response (15/08/2025)				
According to the eligible Emission Units for the CORSIA scheme available on their website: https://www.icao.int/sites/default/files/environmental-protection/CORSIA/Documents/CORSIA_EEU_Oct2024.pdf, Biocarbon Standard is not yet eligible to submit certified emissions for either the 2021–2023 or 2024–2026 periods. Therefore, the Zeus Hydroelectric Project cannot claim emission certificates for the crediting period between 2022 and 2024 for use under the CORSIA scheme. *Additionally, the Ministry of Environment of Colombia, through its website: https://www.minambiente.gov.co/se-reactiva-gradualmente-el-registro-nacional-de-reduccion-de-emisiones-renare/, has communicated that projects registered in the National Emissions Reduction Registry can only be registered in the* ***Feasibility Phase****, making it currently impossible to obtain a Host Country Attestation for the use of credits in an international scheme.*				
Documentation provided by the project holder				
NA				
CAB assessment (25/08/2025)				
APPLUS has assessed the arguments given by the PP and agrees in the fact that it is not possible for the project (at the time of the verification) to obtain a Host Country Attestation (RENARE just allows the inclusion of GHG ER´s initiatives in the feasibility phase while Project Activity is in implementation). Finding closed.				

Finding ID		*Type of finding*	*Clarification*	*Date 26/06/2025*
Section No				
9.b				
Description of finding				
During the on-site visit it was not clear enough how the project was managing the "Gender Equality and Women Empowerment Socioeconomic Aspects" depicted on the MR.				
Project holder response (15/08/2025)				
Section 9 Socioeconomic Aspects Item "b" has been updated with the description of all measures adopted by the developer of the Zeus Hydroelectric Power Plant to comply with the requirements described in Section 7.1.2, "Gender Equality and Women Empowerment," of the Biocarbon Sustainable Development Safeguards Tool v2.0. These include, among others: *1. An Internal Labor Regulation*				

2. Mechanisms for filing cases of harassment or violations of workers' rights 3. Training for employees regarding the Internal Labor Regulation and workplace harassment
Documentation provided by the project holder
1. RT-02 REGLAMENTO INTERNO TRABAJO ZEUS 25052022 (1).pdf 2. RIT, CONVIVENCIA LABORAL (2).pdf: Presentation for training 3. Asistencia Capaci.pdf: Attendance list for training on workplace harassment and the Internal Labor Regulation
CAB assessment (25/08/2025)
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the compliance of the "Gender Equality and Women Empowerment Socioeconomic Aspects" during the MP under evaluation and found them correct and aligned with the BioCarbon requirements. The finding is closed.

Finding ID		**Type of finding**	**Clarification**	**Date 26/06/2025**
Section No.				
9.d				
Description of finding				
During the on-site visit it was not clear enough how the project was managing the "Indigenous Peoples and Cultural Heritage Socioeconomic Aspects" depicted on the MR.				
Project holder response (15/08/2025)				
Section 9 Socioeconomic Aspects Item "d" has been updated with the description of the certifications from Ministry of the Interior of Colombia and by the Colombian Institute for Rural Development (INCODER, by its Spanish acronym).				
Documentation provided by the project holder				
1. Certification by INCODER 2. Certification by Ministry of the Interior				
CAB assessment (25/08/2025)				
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the compliance of the "Indigenous Peoples and Cultural Heritage Socioeconomic Aspects" during the MP under evaluation and found them correct and aligned with the Colombian Laws and BioCarbon requirements. The finding is closed.				

Finding ID		**Type of finding**	**Clarification**	**Date 26/06/2025**
Section No.				
9.c				
Description of finding				
During the on-site visit it was not clear enough how the project was managing the "Land acquisition, restriction on land use, displacement, and involuntary resettlement of the project" during the first verification period of the project.				
Project holder response (15/08/2025)				

Section 9 Socioeconomic Aspects Item "c" has been updated with the description of each plot of land legally acquired by the project for its implementation, as well as the provisions established in the Environmental Impact Study and the Environmental License issued by CORANTIOQUIA.
Documentation provided by the project holder
1. *Purchase agreements and easement agreements for each of the 12 plots of land required for the implementation of the project* 2. *Environmental Impact Study* 3. *Environmental License*
CAB assessment (25/08/2025)
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the compliance of the "Land acquisition, restriction on land use, displacement, and involuntary resettlement of the project" during the MP under evaluation and found them correct and aligned with the Colombian Laws and BioCarbon requirements. The finding is closed.

Finding ID		***Type of finding***	***Clarification***	***Date 26/06/2025***
Section No.				
9.f				
Description of finding				
During the on-site visit it was not clear enough how the project was ensuring that " There was no misuse of funds, bribery to secure contracts or permits, nepotism or favoritism in the selection of contractors, fraudulent reporting, conflicts of interest, lack of transparency, weak regulatory oversight, lack of accountability mechanisms, environmental permitting corruption, and subcontractor corruption" during the 1st monitoring period of the project activity.				
Project holder response (15/08/2025)				
Section 9 Socioeconomic Aspects Item "f" has been updated with the procedures in place, the project owner prevents the risks of misuse of funds, bribery to secure contracts or permits, nepotism or favoritism in contractor selection, fraudulent reporting, conflicts of interest, lack of transparency, weak regulatory oversight, absence of accountability mechanisms, corruption in environmental permitting, and subcontractor corruption				
Documentation provided by the project holder				
1. *PT-13 PROCEDIMIENTO COMPRAS Y ADQUISICIONES.docx* 2. *Declaracion-cumplimiento-CREG-080-CHZ.pdf* 3. *RRC-01. RESPONSABILIDAD Y RENDICION DE CUENTAS.pdf*				
CAB assessment (25/08/2025)				
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the compliance of the "There was no misuse of funds, bribery to secure contracts or permits, nepotism or favoritism in the selection of contractors, fraudulent reporting, conflicts of interest, lack of transparency, weak regulatory oversight, lack of accountability mechanisms, environmental permitting corruption, and subcontractor corruption" during the MP under evaluation and found them correct and aligned with the Colombian Laws and BioCarbon requirements. The finding is closed.				

Finding ID		***Type of finding***	***Clarification***	***Date 26/06/2025***
Section No.				
9.h				
Description of finding				
During the on-site visit it was not clear enough how the project demonstrates the "Governance and Compliance Resulting Supporting" during the 1st monitoring period of operation.				
Project holder response (15/08/2025)				
Section 9, Socioeconomic Aspects, item "h," has been updated by complying with the four items required in Section 8, "Governance and Compliance," of the Sustainable Development Safeguards Tool, version 2.0, of the Biocarbon Standard.				
Documentation provided by the project holder				
1. PMA7_INFORME.pdf				
CAB assessment (25/08/2025)				
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the compliance of the "Governance and Compliance" during the MP under evaluation and found them correct and aligned with the Colombian Laws and BioCarbon requirements. The finding is closed.				

Finding ID		***Type of finding***	***Clarification***	***Date 26/06/2025***
Section No.				
10. Stakeholder consultation				
Description of finding				
PP is requested to present the results of the stakeholder consultation of the MR for the 1st verification, as well as the comments received (and responses given) by any stakeholder and by any communication channel during the MP.				
Project holder response (15/08/2025)				
All information from local consultations prior to the start of the crediting period (May 17, 2022) was removed from the Monitoring Report. It has been replaced with all information related to the current crediting period (May 17, 2022 – December 31, 2024)				
Documentation provided by the project holder				
1. Evidencia Hidrolavadora Donada.jpg *2. Recibido_ Informe construcción de placa huella.pdf*				
CAB assessment (25/08/2025)				
APPLUS reviewed the latest version of the MR as well as the evidence provided by the PP to support the due diligence done by PP to stakeholder consultation, comments received, and responses given during the MP under evaluation and found them fully aligned with the BioCarbon guidelines. The finding is closed.				

Annex 3. Documentation review

Document Title / Version	Author	Organization	Document provider
/1/ SHP Zeus project document. Version 6.0	South Pole	SHP Zeus	South Pole
/2/Validation report BCR-CO-173-1-003. Version 6.0	AENOR CONFIA, S.A.U.		BCR
/3/Monitoring Report BCR-CO-173-1-003. Version 4.0, dated on 26/11/2025	South Pole		South Pole
/4/BCR Validation and Verification manual. Version 3.0, June 13, 2025.	BCR		BCR
/5/BCR Standard. Version 4.0, July 14, 2025.	BCR		BCR
/6/CDM baseline "Methodology AMS-I.D.: "Grid- connected renewable electricity generation" Version 18.0.	UNFCCC		UNFCCC
/7/BCR Monitoring Report Format. Version 3.4	BCR		BCR
/8/BCR Verification Report Format. Version 3.4	BCR		BCR
/9/BCR Tool. Avoid double counting of emissions reductions or removals. Version 3.0, April 7, 2025.	BCR		BCR
/10/ BCR Tool. Monitoring, Reporting and Verification (MRV). Version 2.0, June 23, 2025.	BCR		BCR
/11/BCR Tool. Sustainable Development Goals (SDGs). Version 1.0, July 13, 2023.	BCR		BCR
/12/SHP Zeus. Data Sheet Equipment. Version 1.0. Fichas tecnicas 10042025.xls	SHP Zeus		South Pole
/13/SHP Zeus. Shutdown reports 2022, 2023 and 2024. Version 1.0. ▪ Anexo 2_Resumen Paros CHZ_2022.xls ▪ Anexo 2_Resumen Paros CHZ_2023.xls ▪ Anexo 2_Resumen Paros CHZ_2024.xls	SHP Zeus		South Pole
/14/Installation Acts, Main-Backup Meters SHP Zeus. Versión 1.0.	EPM		South Pole

Document Title / Version	*Author*	*Organization*	*Document provider*
▪ *ACTA INST. MEDIDORES - PCH ZEUS 2022.02.28.pdf* ▪ *ACTA REVISIÓN FRONTERA PCH ZEUS 2022.05.26.pdf*			
/15/Calibration certificate main & backup meters SHP Zeus. ▪ *Cert. Calibracion Medidores 22159684.pdf*	*EPM*	*SHP Zeus*	*South Pole*
/16/Photographical records main and backup meters SHP Zeus. ▪ *Principal y Respaldo.jpeg* ▪ *Principal.jpeg* ▪ *Respaldo.jpeg*	*APLUS*		*NA. Audit evidence*
/17/Energy Generation Record. SHP Zeus 2022-2024	*SHP Zeus*		*South Pole*
/18/SHP Zeus ER's Calculation File. Version 18. ▪ *ER calculations_120625.xls*	*SHP Zeus*		*South Pole*
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▪ *FE 26 – 2024.pdf* ▪ *FE 27 – 2024.pdf* ▪ *FE 28 – 2024.pdf* ▪ *FE 29 – 2024.pdf* ▪ *FE 30 – 2024.pdf* ▪ *FE 31 – 2024.pdf* ▪ *FE 32 – 2024.pdf* ▪ *FE 33 – 2024.pdf* ▪ *FE 34 – 2024.pdf* ▪ *FE 35 – 2024.pdf* ▪ *FE 36 – 2024.pdf*			
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/33/Environmental management program (PMA 7) for SHP Zeus. ▪ PMA7_INFORME.pdf	Ingeobosque	SHP Zeus	SHP Zeus
/34/Applus-Strategic and Risk Analysis Zeus	Applus	Applus	Applus
/35/Applus-Verification Plan	Applus	Applus	Applus
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/40/ Biocarbon Cert. 2024. Sustainable Development Safeguards (SDSs) Version 2.0, June 23, 2025.	*BioCarbon*	*BioCarbon*	*BioCarbon*

Annex 4. Abbreviations

Use the table provided to list all the abbreviations used in this report.

Abbreviations	*Full texts*
BCR	*Biocarbon Registry*
BM	*Build Margin*
CAR	*Corrective Action Request*
CDM	*C lean Development Mechanism*
CL	*Clarification request*
CM	*Combined margin*
CO2	*Carbon dioxide*
CO2e	*Carbon dioxide equivalent*
DR	*Document review*
EF	*Emission factor*
EIA	*Environmental Impact Assessment*
ECR	*Environmental Compliance Report*
ER	*Emission Reductions*
ERPA	*Emission Reduction Purchase Agreement*
FAR	*Forward Action Request*
GHG	*Greenhouse gases*
GWP	*Global Warming Potential*
IPCC	*Intergovernmental Panel on Climate Change*
kWh	*Kilo Watt Hour*
MW	*Mega Watt*
MWh	*Mega Watt Hour*
NCV	*Net Calorific Value*
OM	*Operating margin*
PD	*Project Developer*
SDG	*Sustainable Development Goals*
tCO2e	*Tonnes of CO2 equivalents*
UNFCCC	*United Nations Framework Convention on Climate Change*
VVB	*Validation and Verification Body*
VCC	*Verified Carbon Credits*
VVM	*Validation and Verification Manual*

NOTE: This format shall be completed following the instructions included. However, it is important to highlight that these instructions are complementary to the BCR STANDARD, and the BioCarbon Validation & Verification Manual, in which more information on each section can be found