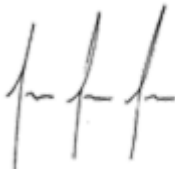




**Validation report form for renewal of crediting period for
CDM project activities
(Version 03.0)**

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Providencia III: 9.11MW Small Hydro Power Generation Plant 8759
Number and duration of the next crediting period	Second Crediting Period (12/03/2022 – 11/03/2029)
Version number of the validation report	02.1
Completion date of the validation report	21/10/2021
Version number of PDD to which this report applies	Version 9.1
Project participants	MINEROS ALUVIAL S.A.S. BIC The Andean Center for Economics in the Environment – CAEMA – ACEE
Host Party	Colombia
Applied methodologies and standardized baselines	Approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0
Mandatory sectoral scopes	1 : Energy industries (renewable - / non-renewable sources)
Conditional sectoral scopes, if applicable	N/A
Estimated amount of annual average GHG emission reductions or GHG removals by sinks in the next crediting period	36,165 tCO ₂ e
Name and UNFCCC reference number of the DOE	Colombian Institute for Technical Standards and Certification (ICONTEC) E-0024
Name, position and signature of the approver of the validation report	 Juan Sebastián Salazar Technical Director

SECTION A. Executive summary

ICONTEC has performed the assessment for the renewal of crediting period of Providencia III: 9.11MW Small Hydro Power Generation Plant in Colombia on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board. This renewal of crediting period report summarizes the findings of this exercise.

The proposed project activity under the renewal process is based on the Approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0. The project involves the installation of a Greenfield run-of-river hydroelectric power plant which take advantage of Anorí River. The hydroelectric power plant is located in the municipality of Anorí, in Departament of Antioquia in Colombia. The project activity has an installed capacity of 11,16 kW. The energy produced by this project activity is delivered to the private electrical grid owned by MINEROS ALUVIAL S.A.S. BIC. Therefore, this project activity is aimed to reduce the purchase of electricity from Colombian interconnected electrical grid and it is also displaced the use of fossil fuel in the power generation.

The renewal of crediting period process consisted of the following three phases: i) a desk review of the revised project design documents, ii) onsite inspection and follow up interviews with project stakeholders and iii) the resolution of outstanding issues and the issuance of the final renewal of crediting period report and opinion. (See Appendix 4 on this report)

The total emission reductions from the project are estimated to be on average 36,165 tCO₂e per year for the second crediting period.

In summary, it is ICONTEC's opinion that Providencia III: 9.11MW Small Hydro Power Generation Plant, as described in the version 9.1 of the revised project design document, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the baseline and monitoring methodology AMS-I.F, version 3.0. Hence, ICONTEC requests the renewal of crediting period of the project as CDM project activity.

SECTION B. Validation team, technical reviewer and approver

B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interview(s)	Validation findings
1.	Team Leader and Technical Expert in Sectoral Scope 1.2	EI	Ramirez	Francy	Freelance	✓	✓	✓	✓

B.2. Technical reviewer and approver of the validation report for RCP

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Lead Technical Reviewer and Technical Expert Reviewer in Sectoral Scope 1.2	EI	Aubad	Ana Isabel	Feelance
2.	Approver	IR	Salazar	Juan Sebastian	Employee

SECTION C. Means of validation**C.1. Desk/document review**

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The reviewing of the project documentation provided by the project proponent is based upon both quantitative and qualitative information on estimated emission reductions. Quantitative information comprises the reported numbers in the revised PDD submitted. Qualitative information comprises information about description of the project activity and the equipment related, and monitoring procedures.

Main documents reviewed during the desk review stage, provided by the project proponent, are:

- Approved PDD version 7, dated on July 21st/2020/1/
- Revised PDD version 8, dated on April 12th/2021/2/
- Spreadsheet used for the calculation of estimated ERs for the second crediting period /3/
- Validation report for registration purposes written by ICONTEC, version 02 dated on December 12th/2012 /4/
- Validation report for pos registration changes written by ICONTEC, version 02.0 dated on August 31st/2020/5/

In addition to the revised PDD documentation provided by the project proponent, ICONTEC utilized:

- Approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0/UN1/
- CDM validation and verification standard for project activities, version 03.0/UN2/
- CDM project standard for project activities, version 03.0/UN3/
- CDM project cycle procedure for project activities, version 03.0/UN4/
- Tool to calculate the emission factor for an electricity system, version 07.0.0/UN5/
- Methodological Tool for Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, version 03.0.1/UN6/
- Project Design Document form, version 12.0/UN7/

A compilation of the documents related to the validation activities have been compiled under Appendix 3.

C.2. On-site inspection

Duration of on-site inspection: 03/07/2021 to 04/07/2021				
No.	Activity performed on-site	Site location	Date	Team member
1.	Compliance of the revised PDD with the PDD form	Project's site located in Anorí in the department of	03/07/2021 to	Francy Ramírez
2.	Application and selection of		05/07/2021	

	methodologies and standardized baselines	Antioquia, Colombia		
3.	Validity of original baseline or its update			
4.	Crediting period			
5.	Project participants			
6.	Tour by the project's facility			
7.	Compliance of the project implementation with the approved project design document			
8.	Interviews with personnel in charge of operational and maintenance activities			
9.	Visit to the interconnection Point of the project activity.			
10.	Compliance of monitoring activities with the approved monitoring plan			
11.	Assessment of estimated emission reductions or net anthropogenic removals			
12.	Validity of monitoring plan			

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Espinosa	Hernán	Energy Director MINEROS ALUVIAL S.A.S. BIC	03/07/2021 to 05/07/2021	<ul style="list-style-type: none"> • Compliance with PDD form • Application and selection of methodologies and standardized baselines • Validity of original baseline or its update • Estimated emission reductions or net anthropogenic removals • Validity of monitoring plan • Crediting period • Project participants Post-registration changes	Francy Ramírez
2.	Caycedo	Juan Carlos	Advisor CAEMA			
3.	Escobar	Juan Carlos	Chief of Generation MINEROS ALUVIAL S.A.S. BIC			
4.	Acevedo Herazo	Miguel	Safety and health at work professional MINEROS ALUVIAL S.A.S. BIC			
5.	Villegas Quiceno	Oscar	Maintennace planning engineer MINEROS ALUVIAL S.A.S. BIC			
6.	Ravelo	Libardo José	Maintenance mechanical. MINEROS ALUVIAL S.A.S. BIC			

C.4. Sampling approach

No sampling approach was used during the validation.

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Area of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Application and selection of methodologies and standardized baselines	CL 1 CL 3	-	-
Validity of original baseline or its update	-	CAR 1	-
Estimated emission reductions or net anthropogenic removals	CL 2 CL 4	-	-
Validity of monitoring plan	-	CAR 2	-
Crediting period	CL 5	-	-
Project participants	-	-	-
Post-registration changes	-	-	-
Others (please specify) In accordance with the provisions stated in paragraph 7 (c) of meeting report of CDM Executive Board 108 th meeting	-	-	1
Total	5	2	1

SECTION D. Validation findings**D.1. Compliance with PDD form**

Means of validation	The audit team checked the latest approved PDD form /UN7/ and the contents written by the PP in that form, besides the PDD approved for the first crediting period, in order to assess if the project participants have updated the relevant sections of the PDD in accordance with relevant requirements in the Project standard for the request of the crediting period renewal.
Findings	No finding was raised on this issue
Conclusion	The audit team deems that all information transferred to the latest valid version of the PDD form is materially the same as that in the approved PDD for the first crediting period. Likewise, the audit team confirms that the PDD Version 9.1 /1/ is in compliance with the relevant valid version of project design document form /UN7/ and instructions therein for filling out PDD.

D.2. Application and selection of methodologies and standardized baselines

Means of validation	<p>The project activity has been registered with the approved methodology, AMS-I.F, version 02. Since version 02 of AMS-I.F is no longer valid, the PDD for the renewal crediting period has been revised in line with the approved methodology AMS-I.F version 3.0 /UN1/, which is the latest version of the applied methodology at the time of submitting the revised PDD and is currently valid.</p> <p>ICONTEC has performed previously verification assessment, which can help to validate the applicability criteria of methodology AMS-I.F version 3.0 /UN1/</p> <p>The applicability criteria of this methodology, was verified by ICONTEC, as follows:</p> <table border="1"> <thead> <tr> <th>Applicability Condition</th><th>Means of Validation</th></tr> </thead> <tbody> <tr> <td>Illustration of respective situations under which each of the methodology (AMS-I.D., AMS-I.F. and AMS-I.A.) applies is included in Table 3.</td><td> <p>The audit team reviewed the Table 3 in applied methodology AMS-I.F, and it was confirmed that project activity is a Project type 2 by means of:</p> <ul style="list-style-type: none"> • Basic topology of the 44 kV electrical system of Mineros S.A/6/ • Onsite site inspection. </td></tr> </tbody> </table>	Applicability Condition	Means of Validation	Illustration of respective situations under which each of the methodology (AMS-I.D., AMS-I.F. and AMS-I.A.) applies is included in Table 3.	<p>The audit team reviewed the Table 3 in applied methodology AMS-I.F, and it was confirmed that project activity is a Project type 2 by means of:</p> <ul style="list-style-type: none"> • Basic topology of the 44 kV electrical system of Mineros S.A/6/ • Onsite site inspection.
Applicability Condition	Means of Validation				
Illustration of respective situations under which each of the methodology (AMS-I.D., AMS-I.F. and AMS-I.A.) applies is included in Table 3.	<p>The audit team reviewed the Table 3 in applied methodology AMS-I.F, and it was confirmed that project activity is a Project type 2 by means of:</p> <ul style="list-style-type: none"> • Basic topology of the 44 kV electrical system of Mineros S.A/6/ • Onsite site inspection. 				

	<p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <p>(a) The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</p> <p>(b) The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²;</p> <p>(c) The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m².</p>	<p>Providencia III is a run-of-river hydroelectric power plant (it does not have a reservoir), hence this condition is not applicable to the project activity. ICONTEC verified this statement by means of onsite inspection.</p>
	<p>This methodology is applicable for project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition, (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).</p>	<p>This project activity comprises a Greenfield hydroelectric power plant (option (a)). ICONTEC verified this statement by means of:</p> <ul style="list-style-type: none"> • Onsite inspection. • Basic topology of the 44 kV electrical system of Mineros S.A/6/
	<p>In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.</p>	<p>This project activity is a Greenfield hydroelectric power plant, hence this condition is not applicable to Providencia II hydropower plant.</p>
	<p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	<p>The project involves the installation of a run-of-river hydroelectric power plant. Hence, this applicability condition is not applicable to the project activity.</p>

	<p>If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	
	<p>Combined heat and power (co-generation) systems are not eligible under this category</p>	
	<p>If electricity and/or steam/heat produced by the project activity is delivered to a third party, i.e. another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the energy will have to be entered that ensures that there is no double counting of emission reductions.</p>	
	<p>In case biomass is sourced from dedicated plantations, the applicability criteria in the tool "Project emissions from cultivation of biomass" shall apply.</p>	
	<p>MINEROS is the owner of Providencia II hydroelectric power plant, and the electricity generated by this power plant is delivered to the private electrical grid owned by MINEROS. ICONTEC verified this statement by means of reviewing of basic topology of the 44 kV electrical system of Mineros S.A/6/</p>	
	<p>The project involves the installation of a run-of-river hydroelectric power plant. Hence, this applicability condition is not applicable to the project activity.</p>	
	<p>The applicability conditions of this project activity regarding to the tool to calculate the emission factor for an electricity system /UN5/ will be discussed in Sections D.3, D.4 and D.5 of this report.</p> <p>The paragraph 280 of PS /UN3/ states: "The project participants are not required to reassess the additionality of the project activity and update the section relating to additionality", hence this report does not contain an assessment regarding to this issue.</p>	
Findings	CL 1 and CL 3. More details about these findings on Appendix 4.	
Conclusion	The validation team confirms that the Project meets all the applicability conditions and is in line with all the requirements and stipulations mentioned in the applied methodology /UN1/ and the other methodological regulatory documents/UN5//UN6/.	

D.3. Validity of original baseline or its update

Means of validation	<p>The baseline determination has been developed using methodology AMS-I.F, Version 3.0 /UN1/ and Tool for the Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period – Version 03.0.1/UN6/</p> <p>According to the tool /UN6/ the PP applied correctly the following steps:</p> <p>Step 1: Assess the validity of the current baseline for the next crediting period</p> <p>Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies</p>
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There are no changes in the relevant national and/or sectoral policies since the date of registration of the project activity, which impacts the baseline scenario, as it was described by the PP in the revised PDD /2/, (pages 15 and 16). Although the national policies encourage the development of renewable energy /8/, using renewable energy resources for power generation is not mandatory. Power generation by fossil fuel based plants has a relevant role in Colombian power supply, especially in time when ENSO¹ occurs. Likewise, the audit team reviewed the Colombian regulatory framework² with the aim to verify the description provided by the PP in the revised PDD /1/. As conclusion current baseline still complies with all relevant Colombian policies.

Step 1.2: Assess the impact of circumstances

As it was described above, the circumstances at moment of request the renewal of crediting period are the same than validation moment; since the existing scenario is that the Colombian electrical interconnected electrical grid provides the same electricity service as the proposed project /4/, where the power generation by fossil fuels still has a relevant share in the Colombian electrical interconnected grid even with the efforts made by the Colombian Government to encourage the investment in electrical generation by the use of renewable energies/8/. PP assessed the impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions, and they are still valid.

Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested.

In absence of the project activity, equivalent amount of electricity would have been generated by other power plants connected to Colombian electrical grid, therefore the baseline equipments, related with the baseline scenario defined in the applied methodology, would be those equipment related with the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

Step 1.4: Assessment of the validity of the data and parameters

The data and parameters used for the baseline calculations follow provisions of the Tool to calculate the emission factor for an electricity system /UN5/.

For the operating margin emission factor (EF_{OM}), it was considered that there are new power plants operating in the Colombian electrical grid since the renewal of crediting period with the existing power plants /2/. The baseline emissions of the project activity were updated, considering the Tool to calculate the emission factor for an electricity system /UN5/, data available in the Colombian administrator of the wholesale electric market (XM) and Colombian Unit for mining and energy planning (UPME) for the calculation of grid emission factor (please refer to Step 2.2 below).

Step 2: Update the current baseline and the data and parameters

Step 2.1: Update the current baseline

As per the applied methodology, AMS-I.F, version 3.0 /UN1/, the baseline emission is the product of amount electricity displaced with the electricity produced by the renewable generating unit and the combined margin emission factor of Colombian electrical grid. In accordance with applied methodology /UN1/ and applicable Tool /UN5/ an electricity baseline emission factor has been calculated by UPME/9/ as a combined margin emission coefficient, consisting of the combination of a simple adjusted operating margin (OM) emission coefficient and a build margin (BM) emission coefficient.

¹ The El Niño-Southern Oscillation (ENSO) is a recurring climate pattern involving changes in the temperature of waters in the central and eastern tropical Pacific Ocean

² <http://www.siel.gov.co/Inicio/Normatividad/tabid/65/Default.aspx>

	<p>Step 2.2: Update the data and parameters</p> <p>The simple adjusted OM was chosen by the UPME to calculate the operating margin emission factor, using 2019 data vintage for the estimation of emissions reductions. It is worth to draw attention in the fact that values from 2020 are not available at the moment at the moment submit the revised PDD to ICONTEC as the audit team verified by means of documental review of the Web page of the Electric wholesale market administrator (XM)³</p> <p>The operating emission factor was calculated in accordance with the parameters stated in the following equation:</p> $EF_{grid,OM-adj,y} = (1 - \lambda_y) \times \frac{\sum_m EG_{m,y} \times EF_{EL,m,y}}{\sum_m EG_{m,y}} + \lambda_y \times \frac{\sum_k EG_{k,y} \times EF_{EL,k,y}}{\sum_k EG_{k,y}}$ <p>This emission factor will be monitored during the crediting period. It will require monitoring during the second crediting period.</p> <p>In accordance with Resolution 385/2020 /9/, calculations of OM emission factor were made according to the tool's specifications/UN5/.</p> <p>For BM emission factor (step 5) option 2 was chosen for the second crediting period. In accordance with paragraph 72 (b) of the Tool to calculate the emission factor for an electricity system: <i>"For the second crediting period, the build margin emissions factor shall be calculated ex ante, as described in Option 1 above. For the third crediting period, the build margin emission factor calculated for the second crediting period should be used."</i> That is it the build margin emission factor for second crediting period does not require monitoring during second crediting period.</p> <p>The grid emission factor for the project activity has been calculated to be 0.3843 tCO₂e/MWh, considering a weighted of W_{OM} = 0.25 and W_{BM} = 0.75, as stipulated for renewable crediting period in the "Tool to calculate the emission factor for an electricity system" /UN5/.</p>
Findings	CAR 1. More details about this finding on Appendix 4.
Conclusion	The audit team confirms the validity of updated baseline in the updated PDD/2/ in accordance with the applicable validation requirements related to the renewal of crediting period/UN6/ in the VVS /UN2/.

D.4. Estimated emission reductions or net anthropogenic removals

Means of validation	<p>According to equation 2 of the methodology AMS-I.F, version 3.0/UN1/, emission reductions shall be calculated as follows:</p> $ER_y = BE_y - PE_y - LE_y$ <p>For this type of project activity, according to Methodology LE_y = 0 (AMS-I.F, version 3.0 section 5.4) and PE_y = 0 (AMS-I.F, version 3.0 section 5.3), since Providencia III: 9.11MW Small Hydro Power Generation Plant results in run-of-river hydroelectric power plant with no change in the volume of any reservoir as it was mentioned before (See section D.2 on this report). Hence, the emission reductions are calculated as:</p> $ER_y = BE_y$ <p>The baseline emissions are the product of electrical energy baseline EG_{BL,y} expressed in MWh of energy produced by the renewable generating unit multiplied by the grid emission factor.</p> $ER_y = BE_y = EG_{BL,y} \times EF_{CO2,y}$
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³ <http://www1.upme.gov.co/siame/Paginas/calculo-factor-de-emision-de-Co2-del-SIN.aspx>

	<p>For ex-ante estimation of baseline emissions, the electric energy baseline $EG_{BL,y}$ was established as a total of electrical energy produced by the project activity estimated at the request of posregistration changes /5/ (97,762 MWh per year) /4/. The audit team deemed the value used for parameter $EG_{BL,y}$ as credible, reliable and traceable.</p> <p>The Grid emission factor was calculated by UPME for estimation of emission reduction/9/ as $EF_{CO_2,y} = 0.3843 \text{ tCO}_2/\text{MWh}$ for the second crediting period.</p> <p>Therefore, it is estimated that during the second crediting period, Providencia III: 9.11MW Small Hydro Power Generation Plant will reduce 36,165 tCO₂e/year</p>
Findings	CL 2 and CL 4. More details about these findings on Appendix 4.
Conclusion	<p>Based on the information reviewed, the audit team confirmed that in the revised PDD, the sources used were correctly quoted and interpreted, the calculation processes are complete and replicable, and the calculation outcomes are reasonable and accurate.</p> <p>The audit team also confirms that:</p> <ul style="list-style-type: none"> • All assumptions and data used by the project participants are listed in the revised PDD and its annexes, including their references and sources; • All documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the revised PDD and its annexes; • All values used in the revised PDD and its annexes are considered reasonable in the context of the proposed CDM project activity; • The baseline methodology/UN1/ and applicable tools/UN5/ have been correctly applied to calculate baseline emissions, project emissions, leakage and emission reductions; • All estimates of the baseline emissions can be replicated using the data and parameter values provided in the PDD and its annexes.

D.5. Validity of monitoring plan

Means of validation	<p>Monitoring plan presented on revised PDD complies with requirements of approved methodology AMS-I.F (version 3.0) /UN1/. Monitoring of GHG emission reductions is based on the electricity generation by the project activity, which is transparently presented in section B.7.1 of the revised PDD, version 7/2/.</p> <p>ICONTEC verified through interviews with relevant personnel that the project is equipped with an extensive monitoring system for electrical energy generation in accordance with the Colombian regulatory framework/7/. Despite of project activity does not delivered the electrical energy production to Colombian interconnected electrical grid, the PP has decided to follow the provision stated in the Colombian regulatory framework/10/, and it will be performed the calibration activities for the electricity meter every fours years, in accordance with the provisions of methodological tool for Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0 /UN8/.</p> <p>Audit team checked the parameter ($EG_{BL,y}$) presented in the monitoring plan of the latest version of the revised PDD /1/, against methodology /UN1/ and applied tools /UN5/ requirements. No deviations to the project activity were found.</p>
Findings	CAR 2. More details about this finding on Appendix 4.
Conclusion	With the above information, ICONTEC confirmed that the monitoring plan established by the PP, is feasible and that the PP has the ability and sufficient means of implementation to ensure that the emission reductions expected as a result of the project activity, are reported and verified. It is according with provisions of VVS/UN2/ and PS /UN3/.

D.6. Crediting period

Means of validation	The type of crediting period for this project activity is renewable two times by 7 years. The first crediting period of the project activity was 12/03/2015 – 11/03/2022.
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	In accordance with the provisions stated in paragraph 278 of CDM project cycle procedure for project activities /UN4/, it is expected to submit through the dedicated interface on the UNFCCC CDM website, a request for renewal of crediting period of Providencia III: 9.11MW Small Hydro Power Generation Plant together with the new version of the PDD and this validation report before March 11 th /2022 (no later than one year after the expiry of the crediting period).
	Therefore, the second crediting period commences on the day immediately after the expiration of the first crediting period (March 12 th /2022).
Findings	CL 5. More details about this finding on Appendix 4.
Conclusion	The validation team confirms that the description of the second crediting period in the revised PDD complies with applicable requirements established by the CDM Executive Board.

D.7. Project participants

Means of validation	Audit team checked whether the names of the project participants included in the revised PDD /2/ were consistent with the names of the project participants in the UNFCCC Website ⁴ by means of desk review.
Findings	No finding was raised on this issue.
Conclusion	The audit team concluded that the names of project participants in the revised PDD /2/ were consistent with the names of the project participants in the UNFCCC Website ⁴ .

D.8. Post-registration changes

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents ⁵	N		
Corrections	N		
Change to the start date of the crediting period	N		
Inclusion of a monitoring plan	N		
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	N		
Changes to the project design	N		
Changes specific to afforestation and reforestation project activities	N/A		

SECTION E. Internal quality control

This report includes the validation findings that underwent a technical review before being submitted to the project participants.

The technical review and the quality control of the process was performed by an internal technical reviewer in accordance with ICONTEC internal procedures for carrying out validation, verification and certification audits of CDM project activities. The technical reviewers are qualified in accordance with the professional qualification scheme for CDM validation and verification activities established by ICONTEC.

⁴ <https://cdm.unfccc.int/Projects/DB/ICONTEC1355437778.59/view>

⁵ Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

SECTION F. Validation opinion

ICONTEC has performed the renewal of crediting period assessment of Providencia III: 9.11MW Small Hydro Power Generation Plant, in Colombia. The assessment of renewal of crediting period was performed on the basis of UNFCCC criteria for the Clean Development Mechanism and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the revised Project Design Documentation and the subsequent follow-up interviews and onsite inspection have provided to ICONTEC with sufficient evidence to determine the fulfilment of the stated criteria.

The project correctly applies the approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0.

The project activity involves the installation of a Greenfield run-of-river hydroelectric power plant which take advantage of Anorí River. The hydroelectric power plant is located in the municipality of Anorí, in Departament of Antioquia in Colombia. The project activity has an installed capacity of 11,16 kW.

The total emission reductions from the project are estimated to be on the average of 36,165 tCO₂e per year over the selected 7 year – second crediting period. The emission reductions' forecast has been checked and it is deemed likely that the stated amount is achieved because the underlying assumptions do not change.

In summary, it is ICONTEC's opinion that the project as described in the revised PDD version 9.1, meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0. ICONTEC thus, requests the renewal of the crediting period of the project as a CDM project activity.

Appendix 1. Abbreviations

Abbreviations	Full texts
CAEMA	The Andean Center for Economics in the Environment – CAEMA – ACEE
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CERs	Certified emission reductions
CL	Clarification Request
CO ₂ e	Carbon dioxide equivalent
CREG	Colombian Regulatory Commission for energy and gas (Comisión de Regulación de Energía y Gas)
DNA	Designated National Authority
DOE	Designated Operational Entity
ERs	Emission Reductions
GHG	Greenhouse Gases
ICONTEC	Colombian Institute of Technical Standards and Certification (Instituto Colombiano de Normas Técnicas y Certificación)
IPCC	Intergovernmental Panel on Climate Change
MINEROS	MINEROS ALUVIAL S.A.S. BIC
MoC	Modalities of Communication
MR	Monitoring Report
PCP	CDM Project Cycle Procedure
PDD	Project Design Document
PP	Project Participant
PRC	Post Registration Change
PS	CDM Project Standard for project activities
UNFCCC	United Nations Framework Convention for Climate Change
VVS	CDM Validation and Verification Standard for project activities
UPME	Colombian Unit for mining and energy planning (Unidad de Planeación Minero Energética)
XM	Abbreviation for “Market Experts”. XM is a company of the ISA Group that provides integral services. www.xm.com.co . It is Colombian administrator of the wholesale electric market

Appendix 2. Competence of team members and technical reviewers

Francy Ramírez

Lead auditor and Technical Expert in Sectoral Scope 1.2

Education:

Electrical Engineer. Universidad Los Andes, 2001

Post grade:

Assessment of Social Projects. Universidad Los Andes, 2005

Environmental Management. Universidad Los Andes, 2016

University of Oxford. Course: Applying Knowledge Management, Principle and Practices (December 1st/ 2009).

University of Oxford. Course: Successful Change Management for Engineers, Scientists and Staff in Hi-tech Companies (December 2nd 2009).
University of Oxford. Course: Essentials of Project Management for Engineers, Scientists and Staff in Hi-tech Companies (December 3rd 2009).
University of Oxford. Course: Advanced Project Management for Engineers, Scientists and Staff in Hi-tech Companies (December 4th 2009).
Climate Change, Trade and Standardization - in a development perspective". Stockholm, Sweden(23 and 25 November 2009)
ISO global workshop on Greenhouse Gas Schemes Addressing Climate Change – How ISO Standards Help, Stockholm, Sweden. (20 and 21st November 2009)
Conference on Climate Change – Deforestation and Standardization. Bali, Indonesia (31st May and 1st June 2010)

Professional Background:

FENOGE - Fund for non-conventional energy and efficient energy management (Since October 2020)

Technical Specialist for IDB Credit 3747/TC-CO

Provide advice and provide technical assistance to the Coordinating Unit of the Credit in the planning, execution, monitoring and control of the Program. Issue technical concepts, formulate the necessary technical guidelines and orientations to carry out the contracts, activities, projects, actions and improvements that are required for the adequate implementation and fulfilment of the goals and indicators of the Program. Prepare the necessary studies and structure the strategies for the adequate execution of the Program, from the technical point of view and oriented to the fulfilment of the investment and impact indicators in the reduction of energy consumption and reduction of GHG emissions in the Archipelago of San Andrés, Providencia and Santa Catalina. Technically support the structuring and elaboration of the documents required in the framework of the contracting according to its modality in the aspects that are within its competence. Suggest the measures and technical updates that may arise for the documents that are an integral part of the Program.

ICONTEC (2010 – 2020 as employee. Since October 2020 as external individual)

Professional of Validation and Verification

Plan, coordinate, execute and guarantee compliance with the evaluation program for projects that reduce the emission of greenhouse gases in different schemes (CDM, VCS, Gold Standard), catalogued in the sectors of renewable energy generation and manufacturing industries (energy efficiency) and transportation projects. Provide training to internal and external company personnel. To elaborate technical norms concerning the subjects of the area, specifically in carbon footprint quantification. Develop special projects assigned on energy efficiency issues. Carry out audits in the energy sector under the Colombian Environmental Seal, GHG Protocol and ISO 14064-1.

ICONTEC (2005 - 2010)

Professional of Standardization

Planning, coordinate, implement and ensure compliance with the program of national standardization in technical committees among which are electrical installations, electrical power quality, electrical transformers, substations and equipment for medium and high voltage, lighting, appliances and electrical accessories, protection against lightning strikes and electrical equipment. Develop technical standards. Develop and manage special projects assigned. Participate in programs of regional and international standardization.

CODENSA (2002 - 2005)

Inspections and electrical works coordinator

Supervise field work and download the results in the central information system, evaluate the inspections performed, reconciled with contractors, addressing the results of inspections to different areas of the company, charging inspections and electrical work to clients of the firm , coordination and support group field sales engineers, technical training for technical staff, administrative support to department business processes and lost control, maintenance of the

database for internal management inspections. Project Leader for the Optimization of Technical Processes and Regional Trade in Cundinamarca.

CDM Experience

Lead Auditor

- Validation of Guanaquitas 9.74 MW hydroelectric project, Colombia
- Validation of Fuel Switching through change of furnaces at Imusa S.A., Colombia
- Validation of Installation of a high-pressure/high-efficiency bagasse boiler to cogenerate heat and power, Argentina
- Validation of Cueva Maria Hydroelectric Expansion Project, Guatemala
- Validation of Paysandú Clean Energy, Uruguay
- Validation of La Vegona Hydroelectric project, Honduras
- Validation of Chamelecón 280 Hydroelectric project, Honduras
- Validation of Pardos SHPs and LOGICarbon CDM Project, Brazil
- Validation of Pequi and Sucupira SHPs and LOGICarbon CDM Project, Brazil
- Validation of Cambará and Embaúba SHPs and LOGICarbon CDM Project, Brazil
- Validation of Bonyic hydroelectric project, Panamá
- Validation of METALDOM Fossil fuel switch from reheat furnace, República Dominicana
- Validation of Toachi – Pilaton Hydroelectric Project, Ecuador
- Validation of EMGEA Small Hydropower (SHP) Run-of-the-River CDM Project Bundle, Colombia
- Validation of Energy efficiency at Malvinas Gas Plant, Perú
- Validation of Marañon Hydroelectric Project, Perú
- Validation of Santa Rita Hydroelectric Plant, Guatemala
- Validation of Ventana, Suba and Usaquén Hydroelectric CDM Bundled, Colombia
- Verification of Los Algarrobos hydroelectric project, Panamá
- Verification of Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-, Argentina
- Validation of Taurichuco Hydropower Project, Perú
- Validation of Aguafresca Multipurpose and Environmental Service Project, Colombia
- Verification of Agua Fresca Multipurpose and Environmental Service Project, Colombia
- Verification of La Joya Hidroelectric project, Costa Rica
- Verification of Amaime Minor Hydroelectric Power Plant, Colombia

Specialist:

- Validation of Rio Bonito and Baitaca SHPs and LOGICarbon CDM Project, Brazil
- Validation VCS of Pequi and Sucupira SHPs and LOGICarbon CDM Project, Brazil
- Verification of three crediting periods of La Vuelta and la Herradura hydroelectric project, Colombia

CDM Technical Reviewer:

- Validation of improving energy efficiency in a new Gas Plant in Gibraltar - Colombia
- Validation of Tres Valles Cogeneration Project, Honduras
- Validation of Tunjita Diversion Hydroelectric Project, Colombia
- Validation of Ferreira Gomes Hydro Power Plant CDM Project, Brazil
- Verification of two crediting periods of La Venta II, México
- Verification of two crediting periods of La Joya Hidroelectric Project, Costa Rica
- Verification of Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-, Argentina
- Verification of Tres Valles Cogeneration Project, Honduras
- Verification of Agua Fresca Multipurpose and Environmental Services, Colombia
- Verification of La Venta II, México
- Verification of two crediting periods of Fertinal Nitrous Oxide Abatement Project, México
- Verification of Co-composting of EFB and POME project, Guatemala
- Verification of Biogas Project, Olmecca III, Tecun Uman, Guatemala

- Verification of Jepirachi Wind Power Project, Colombia
- Verification of Biogas energy plant from palm oil mill effluent, Guatemala
- Verification of Santa Ana Hydroelectric Project, Colombia
- Validation of SHP Morro Azul CDM Project (JUN1164), Colombia
- Verification of Biogas Project, Olmeca III, Tecun Uman, Guatemala

Specialist Technical Reviewer

- Validation of Biogas project, Olmeca I, Santa Rosa, Guatemala
- Validation of CGR Catanduva Landfill Gas Project, Brazil
- Validation of Macaubas Landfill Gas Project, Brazil

Ana Isabel Aubad

Lead Technical Reviewer and Technical Expert Reviewer in Sectoral Scope 1.2

MAIN PROFESSIONAL EDUCATION

- International Master (MSc.) “Material and Energy Flow Management”. Universidad Trier, Germany. Area of study in depth: “Use of solid waste for energy generation”. Master's thesis with the biogas company Kompogas. 2005
- “ISO 14000 and ISO 9000 Quality Auditor”. Universidad de Antioquia in association with Bureau Veritas, Medellin, Colombia. 1999
- “Environmental Engineer”. Escuela de Ingeniería de Antioquia, Envigado, Colombia. 19–8
- Internship - November 2009: company specialized in design, construction and operation of biogas plants: Chfour Biogas Inc. Ontario, Canada.
- Internship- September 2008: company specialized in design, construction and operation of biogas plants: Agraferm Ag-Luxemburgo.
- Internship- April-May 2007: companies specialized in design, construction and operation of biogas plants (Agraferm, Biogasnord, Ökobit). Germany.
- Practical training – November 2004: “Local Administration of the Environment, Agenda 21 and sustainable development (2 phase)”. Life Academy, San José, Costa Rica.
- Practical training – April-May 2002: “Local Administration of the Environment, Agenda 21 and sustainable development (1 phase)”. Life Academy, Karstad, Sweden.
- Internship – July- August 1999: “Practical training on Environmental Management Systems and Cleaner Production”. Federal Swiss Institute for Research and Materials Testing (EMPA). St.Gallen, Switzerland.

PROFESSIONAL EXPERIENCE

- ICONTEC S.A. (2006–Today). External professional ISO 9001/14001/Chilean Technical Standards/Education/Climate Change (CDM, voluntary programs, carbon footprint)/Sustainable Development.
- ISA S.A.E.S.P Environmental analyst (2018-Today).
- Environmental engineer and project management company G.P.R. S.A., Chile. (2006– 2011).
- Project Manager (main subjects: energy, biogas and waste management projects). Deuman S.A., Chile. (2007).
- Team work engineering for development and implementation of CDM – Kyoto Protocol projects.
- ISAGEN S.A. E.S.P, Colombia (2000–2006). Analysts of the national energy company.
- Fulda-Südwest“. Öko Institut (German Ecology Institute), Darmstadt-Germany. (July to September 2004). Co-realization of the feasibility study for the construction of an energy plant from the biomass potential of the region of Fulda.
- MVR Müllverwertung Rugenberger Damm GmbH & Co. KG, Hamburg-Germany. (December 2003 to February 2004).
- Environmental engineering (professional internship), waste incineration with cogeneration plant. National Center of Cleaner Production and Environmental Technologies (CNPMLTA), MedellínColombia. (1999 – 2000).

- Environmental engineering. ISAGEN S.A. E.S.P, Colombia. (1997 – 1998). Professional practice, work team member responsible for designing the EMS based on ISO 14001.

EXPERIENCE IN CLIMATE CHANGE ACTIVITIES

Technical Reviewer:

- Validation of the Second Crediting Period for Providencia I: 1.8MW Small Hydro Power Generation Plant.
- Verification of three periods for “Agua Fresca Multipurpose and Environmental Services Project”
- Validation of “Fuel Switching through change of furnaces at Imusa S.A.”
- Validation of “Pirgua Landfill Gas Recovery and Flaring”
- Validation of “Installation of a high-pressure/high-efficiency bagasse boiler to cogenerate heat and power”
- Validation of “Methane Gas Capture and Fuel Switching at Compañía Argentina de Levaduras S.A.I.C. Plant Project”
- Validation of “Cueva Maria Hydroelectric Expansion Project”
- Validation of “Montenegro Landfill Gas Recovery and Flaring”
- Validation of “La Vegona Hydroelectric project”
- Validation of “Chamalecón 280 Hydroelectric project”
- Validation of “Metaldom Fossil fuel switch from reheat furnace”
- Verification of five periods for “Doña Juana Landfill gas-to-energy project”
- Verification of “La Vuelta and la Herradura hydroelectric project”
- Validation “Pardos Small Hydro Plant and LOGICarbon CDM Project”
- Validation “Pequi and Sucupira SHPs and LOGICarbon CDM Project”
- Validation “Cambará and Embaúba SHPs and LOGICarbon CDM Project”
- Validation “Rio Bonito and Baitaca SHPs and LOGICarbon CDM Project”
- Verification of “Landfill Gas to Energy Facility at the Nejapa Landfill Site, El Salvador”
- Verification of “Co-composting of EFB and POME project”
- Verification of “Biogas Project, Olmeca III, Tecun Uman”
- Verification of “Los Algarrobos hydroelectric project”
- Verification of “La Venta II Project2
- Validation of “Toachi – Pilaton Hydroelectric Project”
- Validation “EMGEA Small Hydropower (SHP) Run-of-the-River CDM Project Bundle”
- Validation “Marañon Hydroelectric Project” • Verification “Los Algarrobos hydroelectric project”
- Verification “Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-“
- Verification of VCS Scheme “Fuel-Switching Project from Fossil Fuels to Biomass in La Providencia, Arcor”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-02, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-03, Brazil”
- Validation and Verification VCS “BRASCARBON Methane Recovery Project BCA-BRA-02, Brazil”
- Validation and Verification VCS “BRASCARBON Methane Recovery Project BCA-BRA-03, Brazil”
- Validation of “CTR Teresina landfill gas project”
- Validation of “CTR Maceio landfill gas project”
- Validation of “Santa Rita Hydroelectric Plant”
- Validation “Biogas Recovery And Heat Generation From Palm Oil Mill Effluent (Pome), Coopeagropal”
- Verification CDM “BK Energia Itacoatiara Project”
- Verification Gold Standard “BK Energia Itacoatiara Project”
- Validation Gold Standard “Cururos Wind Power Project-Chile” (Sustainability expert)
- Validation “Nuevo Mondoñedo Landfill Gas Recovery, Flaring and Energy Production”

- PRC and validation (new credit period) for: “BRASCARBON Methane Recovery Project BCA-BRA-05, Brazil” and “BRASCARBON Methane Recovery Project BCA-BRA-08, Brazil”
- Verification of the 5th period and 1st period of the new credit period: Ciudad Juarez Landfill Gas to Energy Project
- Verification “DOÑA JUANA LANDFILL GAS-TO-ENERGY PROJECT” (Several periods)
- Post Registration Change BRASCARBON Methane Recovery Project BCA-BRA-08
- Post Registration Change BRASCARBON Methane Recovery Project BCA-BRA-05
- Renewal of Crediting Period BRASCARBON Methane Recovery Project BCA-BRA-08
- Renewal of Crediting Period BRASCARBON Methane Recovery Project BCA-BRA-05
- Verification BRASCARBON Methane Recovery Project BCA-BRA-14
- Verification BRASCARBON Methane Recovery Project BCA-BRA-13
- Verification Ciudad Juarez
- Verification BRASCARBON Methane Recovery Project BCA-BRA-04A, Brazil.
- Verification BRASCARBON Methane Recovery Project BCA-BRA-09, Brazil
- Verification BRASCARBON Methane Recovery Project BCA-BRA-15, Brazil
- Verification BRASCARBON Methane Recovery Project BCA-BRA-14
- Verification BRASCARBON Methane Recovery Project BCA-BRA-13
- Verification DOÑA JUANA LANDFILL GAS-TO-ENERGY PROJECT

Specialist (onsite visit) and Auditor:

- Verification of two periods “Biogas energy plant from palm oil mill effluent”
- Validation “Los Angeles Landfill Gas Flaring Project”
- Verification of two periods “Doña Juana Landfill gas-to-energy project”
- Verification “Landfill Gas to Energy Facility at the Nejapa Landfill Site, El Salvador”
- Verification “La Joya hydroelectric project” • Verification “Hydroelectric Santa Ana”
- Verification “Biogas Project, Olmeca III, Tecún Uman”
- Displacement of the electricity of the national electric grid by the auto-generation of renewable energy in the Cañaveralejo Wastewater Treatment Plant in Cali, Colombia

Lead Auditor:

- Verification “BRASCARBON Methane Recovery Project BCA-BRA-05, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-07, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-08, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-04, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-09, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-15, Brazil”
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-13, Brazil”, three verifications
- Verification “BRASCARBON Methane Recovery Project BCA-BRA-14, Brazil”, three verifications
- Validation “Biogas Project, Olmeca I, Santa Rosa”
- Verification “Co-composting of EFB and POME project”
- Validation “CTR Rosario Landfill Gas Project”
- Validation “CTR Feira de Santana Landfill Gas Project”
- Validation “SHP Itaguaçu CDM project (JUN 1146), Brazil”
- Verification “Doña Juana Landfill gas-to-energy project”, two periods
- Verification of two periods for “Biogas Project, Olmeca III, Tecún Uman”
- Verification “Methane recovery and effective use of power generation project Norte III-B Landfill”
- Introduction of the recovery and combustion of Methane in the existing sludge treatment system of the Cañaveralejo Wastewater Treatment Plant in Cali, Colombia (Post registration change PDD and three Verifications)

- Assessment Report for CDM proposed standardized baseline: “Standardized baseline for the sector of brick production in Colombia”. Client: Climate Change Division of the Ministry of Environment and Sustainable Development of Colombia.
- Post Registration Changes (PRC) for PDDs “BRASCARBON Methane Recovery Project BCA-BRA-04A, Brazil”, BRASCARBON Methane Recovery Project BCA-BRA-13, Brazil” and BRASCARBON Methane Recovery Project BCA-BRA-14, Brazil”
- Verification and Post Registration Change Ciudad Juarez Landfill Gas to Energy Project

Lead auditor in voluntary schemes:

- Validation and verification of VCS “BRASCARBON Methane Recovery Project BCA-BRA05, Brazil”
- Validation and verification of VCS “BRASCARBON Methane Recovery Project BCA-BRA07, Brazil”
- Validation and verification of VCS “BRASCARBON Methane Recovery Project BCA-BRA08, Brazil”
- Verification VCS of “Montañitas hydroelectric project”

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	MINEROS and CAEMA	Approved Project Design Document (PDD) for Providencia III: 9.11MW Small Hydro Power Generation Plant	Version 7 dated on July 21 st /2020	PP
/2/	MINEROS and CAEMA	Revised Project Design Document (PDD) for Providencia III: 9.11MW Small Hydro Power Generation Plant	<ul style="list-style-type: none"> • Version 8 dated on April 12th/2021 • Version 9 dated on July 18th/2021 • Version 9.1 dated on July 31st /2021 	PP
/3/	MINEROS and CAEMA	Spreadsheet used for the calculations of estimated ERs for the second crediting period of Providencia III: 9.11MW Small Hydro Power Generation Plant	Files: <ul style="list-style-type: none"> • RCP - DB Providencia III rJCC120421.xlsx • DB Providencia III RCP rJCC1407211851.xlsx • DB Providencia III RCP rJCC3107211846.xlsx 	PP
/4/	ICONTEC	Validation report for registration purposes of Providencia III: 9.11MW Small Hydro Power Generation Plant	Report N°. CDMVAL-053-02, dated on December 12 th /2012	Other
/5/	ICONTEC	Validation report for posregistration changes of Providencia III: 9.11MW Small Hydro Power Generation Plant	Version 02.0, dated on August 31 st /2020	Other
/6/	HMV Ingenieros	Basic topology of the 44 kV electrical system of Mineros S.A	Dated on September 17 th /2019	PP
/7/	MINEROS	Video tour and photos taken through the hydroelectric power plant facilities and the equipment involved with electrical energy generation and monitoring equipment described in the revised PDD	Dated on June 8 th /2020	PP
/8/	Congress of the	Law 1715, which promotes the	Dated on May 13 th /2014	Other

No.	Author	Title	References to the document	Provider
	Republic of Colombia	development and use of non-conventional energy sources, mainly those of a renewable nature, in the national energy system.		
/9/	UPME	Resolution 385/2020. Whereby the marginal greenhouse gas emission factor of the National Interconnected System is updated - 2019, for projects applicable to the Clean Development Mechanism-CDM	Dated on December 24 th /2020 Available at: https://www1.upme.gov.co/Normatividad/385_2020.pdf	Other
/10/	CREG	Resolution 038 (Colombian Regulatory Framework)	Dated on March 20 th /2014	Other
/UN1/	UNFCCC	Approved small scale methodology AMS-I.F: Renewable electricity generation for captive use and mini-grid, version 3.0		Other
/UN2/	UNFCCC	CDM validation and verification standard for project activities, version 03.0		Other
/UN3/	UNFCCC	CDM project standard for project activities, version 03.0		Other
/UN4/	UNFCCC	CDM project cycle procedure for project activities, version 03.0		Other
/UN5/	UNFCCC	Tool to calculate the emission factor for an electricity system, version 07.0.0		Other
/UN6/	UNFCCC	Methodological Tool for Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, version 03.0.1		Other
/UN7/	UNFCCC	Project Design Document form, version 12.0		Other
/UN8/	UNFCCC	Methodological tool for Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0		Other

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

Table 1. CL from this validation

CL ID	1	Section no.	D.2	Date: 06/05/2021
Description of CL				

Along the PDD version 8 dated on April 14 th /2021, it is referenced version 2 of the applied methodology AMS-I.F. However, that is not the latest version approved by the CDM Executive Board.	
CDM project standard for project activities, version 02.0, paragraph 279 (b) CDM validation and verification standard for project activities, version 02.0, paragraph 404 (b)	
Project participant response	Date: 25/06/2021
PDD was checked looking for Version of the methodology.	
Documentation provided by project participant	
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"	
DOE assessment	Date: 17/07/2021
In the updated version of the revised PDD sent by the PPs it was referenced the latest version of the applied methodology approved by the CDM Executive Board.	
Audit team conclusion Closed	

CL ID	2	Section no.	D.4	Date: 06/06/2021
Description of CL				
In the followings pages of the PDD version 8 dated on April 14 th /2021: 3, 28 and 29, there a tables which describes the years inside the second crediting period; however the first year do not have the proper duration (365 days), and for the following year the start date is not coherent of the end date from previous year.				
Those mistakes are repeated in the spreadsheet used for ERs calculation (RCP - DB Providencia III rJCC120421.xlsx)				
CDM project standard for project activities, version 02.0, paragraph 283 CDM validation and verification standard for project activities, version 02.0, paragraph 404 (b)				
Project participant response				Date: 25/06/2021
Seeking to match years with vintages of CERs to be issued, first year of the second crediting period starts on 13 March 2022 and finishes on 31 Dec 2022, so, first 70 days of the year were not considered to not overlap dates with the ending of the crediting period. Similarly, the latest year of this second crediting period starts on Jan 1, 2028, and finishes on March 11, 2029 which is larger than one year to complete the whole 7 years period of the second crediting period.				
Tables on the referenced pages were corrected,				
Documentation provided by project participant				
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"				
DOE assessment				Date: 17/07/2021
In the updated version of PDD and spreadsheet for emissions reduction calculation sent by the PPs the tables were corrected and now the duration of the crediting period are coherent.				
Audit team conclusion Closed.				

CL ID	3	Section no.	D.2	Date: 06/06/2021
Description of CL				
In sections B.1 and B.6.1 of PDD version 8 dated on April 14 th /2021, it is referenced outdated versions of applied methodology (AMS-I.F)and Tool to calculate the Emission Factor for an electricity system. Likewise, it is reference a tool that is not used along PDD (Tool to calculate project or leakage CO2 emissions from fossil fuel combustion).				
CDM project standard for project activities, version 02.0, paragraph 279 (b) CDM validation and verification standard for project activities, version 02.0, paragraph 404 (b)				
Project participant response				Date: 25/06/2021
All references to version 2 of the applied methodology in sections B.1 and B.6.1 were erased. Also, references to the Tool to calculate project or leakage CO2 emissions from fossil fuel combustion were erased. References to the Version of the Tool to Calculate the emission factof for an electricity system were corrected.				
Documentation provided by project participant				
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"				

DOE assessment	Date: DD/MM/YYYY
In some places along the updated PDD sent by the PPs, it is still referenced version 2 of the applied methodology AMS-I.F (e.g. Section B.6.1 page 27). However, that is not the latest version approved by the CDM Executive Board.	
Audit team conclusion Open	
Project participant response	Date: 18/07/2021
A new search for "version 2" or "v2" sentences was made and the few left calls to methodology AMS-I.F version 2 were erased	
Documentation provided by project participant	
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1807212054"	
DOE assessment	Date: 25/07/2021
Along the PDD version 9, it is referenced in a proper way the the latest version of applied methodology AMS-I.F approved by the CDM Executive Board.	
Audit team conclusion Closed	

CL ID	4	Section no.	D.4	Date: 06/06/2021
Description of CL				
In section B.6.1 of PDD version 8 dated on April 14 th /2021 (page 27) it is mentioned that paragraph 19 of the applied methodology (AMS-I.F) is related with leakage, however, this paragraph in the updated version of the applied methodology describes other topic.				
Likewise, in B.7.3 of PDD version 8 dated on April 14 th /2021 (page 32) it is mentioned that paragraph 23 of the applied methodology (AMS-I.F) is related with parameter $EG_{BL,y}$, however, this paragraph in the updated version of the applied methodology describes other topic.				
CDM project standard for project activities, version 02.0, paragraph 279 (b) CDM validation and verification standard for project activities, version 02.0, paragraph 404 (b)				
Project participant response				Date: 26/05/21
Paragraph 19 of version 2 of the applied methodology changed to paragraph 24 of version 3 of the applied methodology (AMS-I.F) without differences in the text. Paragraph 23 in AMS-1.F v.2 is described in Paragraph 29 Data / Parameter table 5 in AMS-1.F v.3 References addressing the correct paragraphs were corrected into the PDD				
Documentation provided by project participant				
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"				
DOE assessment				Date: 17/07/2021
In sections B.6.1 and B.7.3 of updated version of revised PDD sent by the PP the paragraphs of version 3 of the applied methodology were referenced in a proper way.				
Audit team conclusion Closed.				

CL ID	5	Section no.	D.6	Date: 06/06/2021
Description of CL				
In section C.3.1 of PDD version 8 dated on April 14 th /2021 (page 34) it is referenced the first crediting period, however this PDD was prepared to request a renewal of crediting period				
Project participant response				Date: 25/06/2021
Reference to the first crediting period was changed to second crediting period				
Documentation provided by project participant				
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"				
DOE assessment				Date: 17/07/2021
In the updated version of the revised PDD sent by the PPs, in section C.3.1 it is referenced the second crediting period, however the start date of the crediting period (section C.3.2) is wrong.				
Audit team conclusion Open.				

Project participant response	Date: 18/07/2021
The "Start date of the crediting period" was changed to 12/03/2022	
Documentation provided by project participant	
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1807212054"	
DOE assessment	Date: 25/07/2021
In the updated version 9 of revised PDD, section C.3.2, the start date of the crediting period is described in a proper way.	
Audit team conclusion: Closed.	

Table 2. CAR from this validation

CAR ID	1	Section no.	D.3	Date: 06/06/2021
Description of CAR				
In section B.6.1 of PDD version 8 dated on April 14 th /2021(page 28), it is mentioned the values for W_{OM} and W_{BM} for the first crediting period; however, this PDD is presented to request the renewal of crediting period.				
CDM project standard for project activities, version 02.0, paragraph 279 (b)				
CDM validation and verification standard for project activities, version 02.0, paragraph 404 (b)				
Methodological Tool to calculate the emission factor for an electricity system, version 07.0, paragraph 86 (b)				
Project participant response				Date: 26/06/2021
Reference to WOM and WBM were changed to correctly represent the fraction for the second crediting period.				
Documentation provided by project participant				
Revised PDD attached in file named "RCP - Providencia III - PDD_form05v11 - rJCC1407212017"				
DOE assessment				Date: 17/07/2021
In the updated version of the revised PDD sent by the PPs, it was referenced properly the values for W_{OM} and W_{BM} for the second crediting period.				
Audit team conclusion: Closed.				

CAR ID	2	Section no.	D.5	Date: 06/06/2021
Description of CAR				
The calibration activities described in the “QA/QC procedures” for parameter $EG_{BL,y}$ do not follow the provision stated in the Methodological tool for baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0.				
Methodological tool for baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0. Section 7.2. Data / Parameter table 12				
Project participant response				Date: 19/07/2021
Calibration was set to fulfil Section 7.2. Data / Parameter table 12.				
Documentation provided by project participant				
Revised PDD attached in file named “RCPv2 - Providencia III - PDD_form05v11 - rJCC1907211120”				
DOE assessment				Date: 25/07/2021
In the updated version 9 of revised PDD, section B.7.1, the calibration activities described in the “QA/QC procedures” for parameter $EG_{BL,y}$ follows the provision stated in the Methodological tool for baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0.				
Audit team conclusion: Closed.				

Table 3. FAR from this validation

FAR ID	1	Section no.	N/A	Date: 21/10/2021
Description of FAR				
<p><i>In accordance with the provisions stated in paragraph 7 (c) of meeting report of CDM Executive Board 108th meeting, it is requested to PP</i></p> <p><i>(i) Apply any global warming potential values that may be adopted by the CMP for that period in their monitoring reports for any emission reductions achieved on or after 1 January 2021; and</i></p> <p><i>(ii) Update their project or programme design documents in accordance with any requirements of the CMP guidance.</i></p>				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

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Document information

Version	Date	Description
03.0	31 May 2019	Revision to: <ul style="list-style-type: none"> Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN) and version 02.0 of the “CDM project cycle procedure for project activities” (CDM-EB93-A06-PROC); Make editorial improvements.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.

Decision Class: Regulatory
 Document Type: Form
 Business Function: Renewal of crediting period
 Keywords: crediting period, project activities, validation report