



**Validation report form for post-registration changes for
CDM project activities
(Version 03.0)**

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	Saldanha Small Hydroelectric Project UNFCCC Ref. Number 1526
Process track	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
Version number of the validation report	1.1
Completion date of the validation report	03/09/2021
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents ¹ <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents <input checked="" type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation project activities
Version number of PDD to which this report applies	6.1
Project participants	Hidroluz Centrais Elétricas Ltda.
Host Party	Brazil
Applied methodologies and standardized baselines	AMS-I.D: Grid connected renewable electricity generation, version 13.0
Mandatory sectoral scopes	Sectoral Scope: 1 - Energy industries (renewable - / non-renewable sources)
Conditional sectoral scopes, if applicable	Not applicable
Name and UNFCCC reference number of the DOE	Earthood Services Private Limited UNFCCC reference number: E-0066

¹ 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).

Name, position and signature of the
approver of the validation report



Dr. Kaviraj Singh
Managing Director

SECTION A. Executive summary**Description of project:**

The project activity consists of a small run-of-river hydroelectric project operating with Francis turbines for generation of electricity which partly displaces electricity generation based on fossil fuels in the Brazilian Interconnected System (SIN). The project is located at Alta Floresta D'Oeste municipality in Rondônia State, Brazil.

The project has a total installed capacity of 5.0 MW consisting of two sets of 2.5 MW.

The project was implemented and commissioned on 13/03/2009.

The GHG emission reductions were calculated on the basis of the small-scale methodology AMS-I.D – Grid connected renewable electricity generation, version 13.0 of 14/12/2007 and the monitoring plan included in the revised Project Design Document, version 6 of 29/07/2021 submitted.

The project was validated by DNV (validation report Revision No 01G issued on 27/02/2009) and it was registered on 16/03/2009 under the CDM registration reference No. 1526. A validation opinion on the changes to the project design presented in the revised PDD version 6.1 of 30/08/2021.

Validation process

This report summarizes the findings from the validation of the revised PDD of the project, performed on the basis of UNFCCC criteria for CDM, as well as criteria given by the CDM Validation and Verification Standard for project activities, CDM Project Cycle Procedure for project activities and CDM Project Standard for project activities. The Validation Opinion is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

Conclusion

Hidroluz Centrais Elétricas Ltda. has commissioned ESPL to perform the validation of the PRC of the project "Saldanha Small Hydroelectric Project". In conclusion, it is ESPL's opinion that the revised document meet all the relevant requirements established in the CDM Project Standard.

Hence, ESPL requests that the validation opinion on changes from the project activity as described in the revised PDD for the project activity "Saldanha Small Hydroelectric Project" in Brazil may be considered by the Board.

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	Interviews	Validation findings
1.	Team Leader/Technical Expert (TA 1.2)	ER	Leiroz	Andrea	ESPL	✓	Remote audit	✓	✓
2.	Verifier/Technical Expert (TA 1.2)	IR	Lopes	Ricardo	Verifit	✓	Remote audit	✓	✓

B.2. Technical reviewer and approver of the validation report on PRCs

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer	IR	Garg	Shreya	Central Office
2.	Technical Expert	IR	Garg	Shreya	Central Office
3.	Approver	IR	Singh	Kaviraj	Central Office

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

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

- A review of the data and information presented to verify their completeness;
- A review of the revised PDD;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

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

C.2. On-site inspection

Duration of on-site inspection: -				
No.	Activity performed on-site	Site location	Date	Team member
-	-	-	-	-

A site visit was not performed for the validation of the PRC and verification of the monitoring period, although this was the first verification for the DOE with regard to this project activity. The last on-site inspection conducted for verification of the project activity took place on 26/06/2013 and the project activity has not achieved more than 300,000 tCO₂e of GHG emission reductions since this last verification when the on-site inspection was conducted.

However, as per the CDM EB, the DOE may use other standard auditing techniques for validation or verification as referred to in sections 7.1.3 of the VVS-PA /13/.

Validation team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of validation. Along with desk review, audit team has conducted remote audit interview as follows:

- A complete desk review of the revised PDD /10/, submitted MR (initial and final versions) /1/ /3/, as well as applicable country legal requirement and supportive evidences have been checked by the Validation Team.
- Validation team has performed a remote site inspection via videoconference with PP in order to check implementation, project boundary, current situation, evaluation of data management, QA/QC system, monitoring and metering equipment, monitoring procedures, calibration etc. Interview questions were filled as per Validation team interview checklist and also videos were captured.
- Cross-checks between information provided by interviews, under the scope of all information and references provided in MR and supporting documents.
- Cross-checked evaluation, for information received from interviews, under the scope of all information and references provided in MR and supporting documents.

Details of interviewees, topics covered and additional information presented in the below section "C.3 – Interviews".

Validation team has also checked the site visit requirements mentioned in paragraph 301 of the VVS for PA version 02.0 /13/. However, the presential site visit was not conducted due to the COVID-19 pandemic.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Viana	Thiago	Ecosecurities	21/05/2021	Project implementation, management, operation and monitoring. CERs calculation, project monitoring and data analysis.	Andrea Leiroz; Ricardo Lopes
2.	Dinato	Ricardo	Ecosecurities			
3.	Gama	Stella	Ecosecurities			
4.	Blucher	Rebeca	Ecosecurities			
5.	Salviano	Luana	Hidroluz			
6.	Araújo	Paulo Sérgio	Hidroluz			

C.4. Sampling approach

No sampling approach is used during verification.

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

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Corrections	-	-	-
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan	-	-	-
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Changes to the project design	-	-	-
Changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
Total	-	-	-

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

Means of validation	PDD applies the applicable CDM-PDD-FORM: Project design document form version 11.0 /16/. ESPL verified that the information transferred to the later valid version of the PDD form is materially the same as that in the registered PDD /9/.
Findings	No findings have been raised.
Conclusion	ESPL confirms that final PDD is completed using the valid version of the applicable CDM-PDD-FORM: Project design document form version 11.0 /16/ in compliance with para 412 (a) (i) of VVS for PA version 02 /13/. All the information has been correctly transferred from registered PDD /9/ to the current PDD /10/ which is filled in the latest CDM PDD form available in UNFCCC website. ESPL confirms that the transfer of information from the old form to the new form is correct and materially the same as the information in the registered PDD in compliance with para 412 (a) (ii) of VVS for PA version 02 /13/. PDD is in compliance with the instruction provided in the template.

D.2. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

Means of validation	N/A
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Findings	N/A
Conclusion	N/A

D.3. Corrections

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.4. Changes to the start date of the crediting period

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.5. Inclusion of a monitoring plan

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents

Means of validation	N/A
Findings	N/A
Conclusion	N/A

D.7. Changes to the project design

Means of validation	<p>Along with this verification, it is being proposed a project design change in the registered PDD. A revised PDD version 6.1 dated 30/08/2021 /10/ is being submitted along with the verification report.</p> <p>The post-registration change consisted of an update of the output capacity of the project from what was described in the registered PDD /9/.</p> <p>During this verification, it was observed that the electricity generated per year by the project is systematic higher than the value applied in the registered PDD due to an overconservative value applied in the estimative of the ex ante CERs.</p> <p>Although the installed capacity of the plant is 5 MW, the PDD dated 26/02/2009 /9/ submitted for registration specifies an output capacity of 29,784 MWh/year based on the information available at the time of project development in 2007, i.e. authorization provided by ANEEL (4.8 MW).</p> <p>The installed capacity of the project activity did not change in the PDD since it was defined based on the nameplate capacity of the turbines and verified during the remote audit. Nevertheless, the annual electricity generation increased from 29,784 MWh/year (registered PDD /9/) to 43,800 MWh (revised PDD /10/).</p> <p>The change in the annual electricity generation by the power plant represents an increase in the estimated ex-ante baseline emissions from 28,059 tCO₂ (registered PDD /9/) to 41,263 tCO₂ (revised PDD /10/) and the project emissions remains zero.</p> <p>These changes have been included in the revised PDD /10/ and in the revised emission reduction calculation spreadsheet /12/ provided by project participant and assessed as acceptable by ESPL.</p> <p>The applied small-scale methodology was AMS-I.D - Grid connected renewable electricity generation (version 13.0) /17/. The changes in the project activity described above have no impact on the applicability and application of applied methodology. Sections B.1, B.2 and B.3 that refers to applicability and project boundary were not updated in the revised PDD. Section B.4 regarding baseline scenario was not impacted by the change in the design.</p> <p>Regarding additionality (section B.5), the project additionality was originally demonstrated by applying barriers analysis following the tool "Attachment A to</p>
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Appendix B of the simplified modalities and procedures for CDM small-scale project activities" /33/. The changes described above did not impact the additionality of the project activity.

The change in the project activity has no impact on the prevailing practice barrier, thus the barrier remains valid exactly as described on the registered PDD /9/. For the investment barrier, the only value that changed was the electricity generation. All other input values are still valid. The registered PDD presented a financial analysis where it is demonstrated that the IRR of the construction of a hydroelectric plant is the lowest of the three scenarios being evaluated, indicating that the construction of the project is not financially attractive for a rational investor. This is also validated by a sensitivity analysis (described in detail in section B.5 of the PDD), which also analyzed the main inputs to the financial analysis with respect to the variation of each input to cross the benchmark and the IRR result if the most likely variation of each input occurs. Due to the change described above, the financial analysis of the project activity was reassessed.

As explained by PP, the change in the project design is merely materializing a scenario already analyzed in the sensitivity analysis presented in the registered PDD, i.e., the most likely variation value for the electricity generation is represented by the maximum output of the project equipment (43,800 MWh).

Electricity generation (MWh)	Variation	Project IRR
43,800	36.9%	8.44%

The discount rate applied in the financial analysis is 16.56% and as described in the registered PDD, to reach this discount rate it will be necessary a variation of 147.16% in the electricity generation.

Therefore, since the variation on the financial analysis was already predicted in the registered PDD and it was demonstrated that even with this variation the project was still additional, it is ESPL's opinion that the change in project design does not have an adverse impact on additionality.

Sections B.6.1 and B.6.3 that refers to explanation of methodological choices and ex-ante calculation of emission reductions were correctly updated in the revised PDD /10/.

Emission reductions are directly monitored and calculated *ex-post*, using the approach indicated in the AMS-I.D - Grid connected renewable electricity generation (version 13.0) /17/.

- All assumptions and data used by the project participants are listed in the PDD and/or supporting documents, including their references and sources;
- All documentation used by the project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD;
- All values used in the PDD are considered reasonable in the context of the proposed CDM project activity;
- The baseline methodology has been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions;

All estimates of the baseline, project and leakage emissions can be replicated using the data and parameter values provided in the PDD /10/.

Findings

No findings have been raised.

Conclusion

Project design

ESPL verified that the change in the project design complies with the relevant requirements in the Project Standard, version 2 as per Paragraph 241 (h) /14/.

ESPL verified that the proposed changes in the revised PDD /10/ are in accordance with the actual implementation of the project activity, considering the revision in the output capacity of the plant.

ESPL checked and verified complementary data and related information used to assess and explain the change made in the project activity and the impact of such change in the project's implementation, emission reductions, additionality and applicability and application of baseline methodology.

	<p>The revised PDD /10/ and the calculations provided in the revised spreadsheet /15/ clearly and transparently identify the change from the project activity as described in the registered project design document. The change made in the revised PDD /10/ is related to the increase of the electricity generation of the plant.</p> <p>The justification and assumptions made in the calculations considering the actual values are considered reasonable and acceptable.</p> <p>The change in the project activity does not affect negatively the project activity operation however it affects the amount of emission reductions expected by the project activity. The changes do neither impact adversely the additionality of the project nor the applicability/application of AMS-I.D (version 13.0).</p> <p>By assessing the evidences presented and cross-checking the information with references used, it is ESPL's opinion that all data, rationales, assumptions, justifications and documentation provided by the project participants to support demonstration of additionality are credible and reliable.</p> <p>ESPL also confirmed that the proposed revision in the electricity generated per year by the project does not reduce the level of accuracy and completeness in the monitoring and verification process since there is no change in the frequency of measurements and quality of monitoring equipment.</p> <p>No findings were identified in the previous verification and certification reports /8/.</p> <p>Hence, it is ESPL's opinion that the changes do <u>not</u> raise any concerns with regard to i) additionality, ii) the scale of the CDM project activity and/or iii) the applicability and application of baseline methodology and complies with the requirements of the Project Standard, version 2 Paragraph 241 (h) /14/.</p>
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D.8. Changes specific to afforestation and reforestation project activities

Means of validation	N/A
Findings	N/A
Conclusion	N/A

SECTION E. Internal quality control

The draft validation 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 ESPL are duly followed and the validation report/opinion is reached in an objective manner and complies with the applicable CDM requirements.

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

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

SECTION F. Validation opinion

ESPL Certification Services Pvt. Ltd. has been contracted by Hidroluz Centrais Elétricas Ltda. to undertake independent validation of the post registration changes of the CDM project activity "Saldanha Small Hydroelectric Project" and UNFCCC Reference Number 1526 to ensure that the post registration changes meet all relevant requirements to the UNFCCC for CDM project activities including CDM Validation and Verification Standard for project activities.

Validation methodology and process:

The validation has been performed as described in the VVS, version 02.0, and consists of the following steps:

- Review of the revised PDD, version 6.1 dated 30/08/2021;
- Desk review of the revised MR, and the relevant documents;
- Remote audit Interviews;
- Preparation of the Validation Report.

It is DOE's opinion that the revised documentation submitted is conforming to the requirements for Post Registration Changes as stipulated in the Clean Development Mechanism Validation and Verification Standard and thus DOE is recommending the approval of the post registration changes.

Appendix 1. Abbreviations

Abbreviations	Full texts
ANEEL	Brazilian National Electricity Agency (from Portuguese Agência Nacional de Energia Elétrica)
BE	Baseline Emissions
BM	Build Margin
CAR	Corrective Action Request
CCEE	Electric Energy Commercialization Chamber (from Portuguese Câmara de Comercialização de Energia Elétrica)
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER(s)	Certified Emission Reduction(s)
CERON	Rondônia State Electricity Company (from Portuguese Centrais Elétricas de Rondônia S/A)
CL	Clarification Request
CM	Combined Margin
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse Gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
LFG	Landfill Gas
MR	Monitoring Report
ONS	National Grid Operator (from Portuguese Operador Nacional do Sistema)
PDD	Project Design Document
PE	Project Emissions
PP	Project Participant
SEDAM	Rondônia State Environmental Agency (from Portuguese Secretaria de Estado do Desenvolvimento Ambiental)
SHP	Small Hydro Power Plant
SIN	Brazilian Interconnected System
tCO ₂ e	Tonnes of Carbon Dioxide Equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Competence Statement	
Name	Andrea Teixeira Leiroz
Education	Doctorate in Mechanical Engineering
Experience	15 years
Field	Mechanical engineering and material science

Approved Roles			
Team Leader	Yes		
Validator	Yes		
Verifier	Yes		
Methodology Expert	AMS I.D, ACM0002, ACM001, AM0016, AMS III.B, AMS III.E, ACM0006		
Local expert	Brazil		
Financial Expert	No		
Technical Reviewer	No		
TA Expert	Yes (1.1, 1.2, 13.1, 13.2)		
Reviewed by	Shreya Garg	Date	04/02/2021
Approved by	Anshika Gupta	Date	04/02/2021

Competence Statement			
Name	Ricardo Lopes		
Country	Brazil		
Education	Technical Diploma in Data Processing		
Experience	12 years		
Field	CDM, Energy, Environment		
Approved Roles			
Team Leader	Yes		
Validator	Yes		
Verifier	Yes		
Methodology Expert	ACM0001, ACM0002, AM0026, AMS ID, AMS III.H, AMS III.F		
Local expert	Brazil, Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Uruguay		
Financial Expert	Yes		
Technical Reviewer	No		
TA Expert	Yes (1.2, 13.1)		
Reviewed by	Shreya Garg	Date	04/06/2019
Approved by	Anshika Gupta	Date	04/06/2019

Competence Statement	
Name	Shreya Garg
Country	India
Education	M.Sc. (Climate Science & Policy), TERI University
Experience	6 Years +
Field	Climate Change
Approved Roles	
Team Leader	Yes
Validator	Yes
Verifier	Yes
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012
Local expert	India
Financial Expert	No
Technical Reviewer	Yes
TA Expert	Yes (1.2, 3.1)

Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/1/	Hidroluz Centrais Elétricas Ltda	Monitoring report for project activity "Saldanha Small Hydroelectric Project".	Version 1 of 31/03/2021	Project participant
/2/	Hidroluz Centrais Elétricas Ltda	Monitoring report for project activity "Saldanha Small Hydroelectric Project".	Version 3.1 of 03/09/2021	Project participant
/3/	Hidroluz Centrais Elétricas Ltda	Emission reduction calculation spreadsheet for the project activity "Saldanha Small Hydroelectric Project": 20210401 ecosecurities Saldanha ER Calculation v0.xlsx.	Corresponding to version 1 of MR	Project participant
/4/	Hidroluz Centrais Elétricas Ltda	Emission reduction calculation spreadsheet for the project activity "Saldanha Small Hydroelectric Project": 20210825 ecosecurities Saldanha ER Calculation v3.1.xlsx.	Corresponding to version 3.1 of MR	Project participant
/5/	Hidroluz Centrais Elétricas Ltda	Hourly, daily and monthly spreadsheets completed by the local operators for internal records and control.	01/2013 – 03/2019	Project participant
/6/	CERON	Monthly report of electricity exported by the project activity to the grid.	01/2013 – 03/2019	Project participant
/7/	Hidroluz Centrais Elétricas Ltda	Monthly electricity invoices.	01/2013 – 03/2019	Project participant
/8/	DNV	Verification report for Project activity "Saldanha Small Hydroelectric Project" for the third verification.	Version 3 of 14/06/2013	Publicly available
/9/	Hidroluz Centrais Elétricas Ltda	CDM-PDD for Project activity "Saldanha Small Hydroelectric Project".	Version 05.2 of 26/02/2009	Publicly available
/10/	Hidroluz Centrais Elétricas Ltda	Revised CDM-PDD for Project activity "Saldanha Small Hydroelectric Project".	Version 6.0 of 29/07/2021 Version 6.1 of 30/08/2021	Publicly available
/11/	DNV	Validation report for Project activity "Saldanha Small Hydroelectric Project".	Revision No 01G of 27/02/2009	Publicly available
/12/	Hidroluz Centrais Elétricas Ltda	Revised emission reduction calculation spreadsheet for the project activity "Saldanha Small Hydroelectric Project": Full Calculation (registered PDD revised PRC financial analysis).xls.	Corresponding to version 6.0 of PDD	Project participant
/13/	CDM Executive Board	Clean Development Mechanism Validation and Verification Standard for project activities.	Version 02.0 of 29/11/2018	Publicly available
/14/	CDM Executive	Clean Development Mechanism	Version 02.0 of	Publicly

	Board	Project Standard for project activities.	29/11/2018	available
/15/	CDM Executive Board	Clean Development Mechanism Project Cycle Procedure for project activities.	Version 02.0 of 29/11/2018	Publicly available
/16/	CDM Executive Board	CDM-PDD-FORM: Project design document form.	Version 11.0 of 31/05/2019	Publicly available
/17/	CDM Executive Board	Baseline and monitoring methodology "Grid connected renewable electricity generation" for Type I – Renewable Energy Projects, AMS-I.D.	Version 13.0 of 14/12/2007	Publicly available
/18/	CDM Executive Board	TOOL07: Methodological tool: Tool to calculate the emission factor for an electricity system.	Version 01.0 of 19/10/2007	Publicly available
/19/	CDM Executive Board	Guideline: Application of materiality in verifications.	Version 2 of 20/02/2015	Publicly available
/20/	Instituto Nacional de Metrologia, Normalização e Qualidade Industrial	Calibration certificate for electricity meter serial number 4999304: • Certificate number 016/2010 calibrated on 13/07/2010.	13/07/2010	Project participant
/21/	CAM Brasil Multiserviços	Calibration certificate for electricity meter serial number 4999304: • Certificate number 311.15 calibrated on 15/10/2015.	15/10/2015	Project participant
/22/	Companhia Paranaense de Energia	Calibration certificate for electricity meter serial number 5049637: • Certificate number 2013168 calibrated on 18/07/2013.	18/07/2013	Project participant
/23/	3C Services S.A.	Calibration certificate for electricity meter serial number 5049637: • Certificate number 156/2017 calibrated on 18/09/2017.	18/09/2017	Project participant
/24/	Elster	Technical description of electricity meter: Alpha A2R (Plus) Meter 1010860.pdf and ALPHA_A3.pdf.	-	Project participant
/25/	CDM Executive Board	CDM Executive Board agrees to relax mandatory site visits by DOEs for a period of three months (23 March to 23 June 2020) because of COVID-19. The Executive Board of the Clean Development Mechanism (CDM) agreed on 23 June 2020 to, on an exceptional basis, considering the COVID-19 pandemic, to extend the period in which CDM Designated Operational Entities (DOEs) may apply alternative measures of validation/verification to mandatory on-site inspections until 31 December 2020. The Executive Board of the Clean Development Mechanism (CDM), as its 108 th meeting, agreed to further extend the period in which DOEs may apply alternative measures of validation/verification to mandatory on-site inspections until 30 June 2021.	23/03/2020 23/06/2020 14/12/2020	Publicly available
/26/	Rondônia State Environmental	Environmental license: • Operation license		Project participant

	Agency (Secretaria de Estado do Desenvolvimento Ambiental) - SEDAM	#123827/COLMAM/SEDAM valid until 28/09/2014; • Operation license #134228/COLMAM/SEDAM valid until 28/09/2016; • Operation license #140146 valid until 28/09/2024	28/09/2012 30/10/2014 23/08/2016	
/27/	ONS	Grid Procedures: Module 12. Procedure for energy meter class: Sub-module 12.2 v2019.08. Available at: http://www.ons.org.br/%2FProcedimentosDeRede%2FMódulo%2012%2FSubmódulo%2012.2%202019.08.pdf . Procedure for calibration: Sub- module 12.3 v2016.12 valid from 01/01/2017. Available at: http://www.ons.org.br/%2FProcedimentosDeRede%2FMódulo%2012%2FSubmódulo%2012.3%202016.12.pdf .	04/09/2019 16/12/2016	Publicly available
/28/	Hidroluz Centrais Elétricas Ltda	Power meter replacement statements. Replacement on 07/10/2013 of the power meter serial number: 4999304 (manufacturer: Elster, model: ALPHA A2R, class: 0.2, latest reading: 28,289 kWh) by the power meter serial number: 5049637 (manufacturer: Elster, model: A3RBR PLUS, class: 0.2, reading at the time of installation: 0,000 kWh). Replacement on 17/11/2015 of the power meter serial number: 5049637 (manufacturer: Elster, model: A3RBR PLUS, class: 0.2) by the power meter serial number: 4999304 (manufacturer: Elster, model: ALPHA A2R, class: 0.2). Replacement on 05/10/2017of the power meter serial number: 4999304 (manufacturer: Elster, model: ALPHA A2R, class: 0.2) by the power meter serial number: 5049637 (manufacturer: Elster, model: A3RBR PLUS, class: 0.2).	07/10/2013 17/11/2015 05/10/2017	Project participant
/29/	ANEEL	Resolution 487 – authorization to start the operation on 13/03/2006.	10/03/2006	Publicly available
/30/	Hidroluz Centrais Elétricas Ltda	Operational procedure for the monitoring activity of electricity generation data (reference code: PO – Monitoramento – 01).	Revision 2 of 05/04/2011	Project participant
/31/	Hidroluz Centrais Elétricas Ltda	Working Procedures Manual for Saldanha Small Hydropower Plant.	10/04/2012	Project participant
/32/	Hidroluz Centrais Elétricas Ltda	Book of Events: information regarding downtimes and	2020	Project participant

		maintenances in the plant.		
/33/	CDM Executive Board	Attachment A to Appendix B of the simplified modalities and procedures for CDM small-scale project activities. Title changed to Guidelines on the demonstration of additionality of small-scale project activities (EB 68, Annex 27).	-	Publicly available

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

Table 1. CLs from this validation

CL ID	xx	Section no.	Date: DD/MM/YYYY
Description of CL			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

Table 2. CARs from this validation

CAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of CAR			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

Table 3. FARs from this validation

FAR ID	xx	Section no.	Date: DD/MM/YYYY
Description of FAR			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
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);• Make editorial improvements.
02.0	31 October 2017	Revision to align with the requirements in the “CDM validation and verification standard for project activities” (version 01.0).
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