VALIDATION REPORT

Tecnovolt Centrais Elétricas Ltda

ARS Small Hydroelectric Power Plant

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Project title	Organisational unit:
ARS Small Hydroelectric Power Plant	SGS Climate Change Programme
Revision number	Client:
00	Tecnovolt Centrais Elétricas Ltda.

Summary
SGS has performed a validation of the project ARS Small Hydroelectric Power Plant. The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria.

The project activity consists of the installation of a small hydroelectric plant with installed capacity of 6.66 MW. The plant is located on the Von Den Steinen River, in the municipality of Nova Ubiratã, Mato Grosso State, Brazil.

Total amount of emission reductions estimated for the firs crediting period of seven years is 61,873tCO_2e.

SGS will request the registration of the ARS Small Hydroelectric Power Plant as a CDM project activity, once the written approval by the DNA of the participating Parties and the confirmation by the DNA of Brazil that the project assists in achieving sustainable development has been received.

Subject.:			
CDM validation			**Indexing terms**
Work carried out by			
Fabian Gonçalves – Lead Assessor Geisa Príncipe – Local Assessor			
Technical review			
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Abbreviations

ACM	Approved Consolidated Methodology
ANEEL	Agencia Nacional de Energia Elétrica (Brazilian Agency of Power Electricity).
CAR	Corrective Action Request
CER	Certified Emission Reduction
DNA	Designated National Authority
EF	Emission Factor
ER	Emissions Reduction
MP	Monitoring Plan
NIR	New Information Request
PDD	Project Design Document
SGS	Société Générale de Surveillance

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1. Introduction

1.1 Objective

The MGM has commissioned SGS to perform the validation of the project: ARS Small Hydroelectric Power Plant with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

1.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 GHG Project Description

This report summarizes the results of the validation of ARS Small Hydroelectric Power Plant, performed on the basis of UNFCCC criteria. The validation has been performed as a desk review of the project documents presented by Tecnovolt Centrais Elétricas Ltda and MGM and a site visit carried out on 22nd and 23rd July 2007, where the details of the project activity were verified on-site by the local assessors. During the site visit, Teconovolt's manager and MGM consultant were interviewed.

The project activity consists of the installation of a small hydroelectric plant with an installed capacity of 6.66 MW, located in Von Den Steinen River, in the municipality of Nova Ubiratã, Mato Grosso State, Brazil. The project has the objective to provide renewable electricity and dispatch the energy to interconnected system. The project activity has a small 1.64 km2 reservoir, offering lower environmental impact if compared to large hydro powers. This project will increase the supply of renewable source of energy to the grid, avoiding the use of fossil fuel that would be burned in thermal power.

Total amount of emission reductions estimated for the crediting period is 61,873 t CO2e.

Baseline Scenario:

No investment in clean power generation; electricity generation by the existing generation mix operating in the grid. The baseline scenario is the continuation of the current situation of electricity supplied by large hydro and thermal power plants.

With-project scenario:

The installation of a small hydroelectric plant with installed capacity of 6.66 MW to provide renewable electricity to the grid. The project reduces emissions of greenhouse gas (GHG) by avoiding electricity generation by fossil fuel sources and its CO2 emissions, which would be emitted in the absence of the project.

Leakage: No leakage is anticipated.

Environmental and social impacts:

The project is in line with host-country specific CDM requirements. It is expected that the project activity will help Brazil to fulfil its goals of promoting sustainable development. The contributions of the project activity for this were described in the PDD, and comprises, among others: decreasing the dependence on fossil fuels, increasing of energy supply, reducing the risk of electricity deficit and providing local distributed generation, contributing to the regional/local economic development.

The construction and operation of the plant have followed the legal requirements regarding environmental protection and control. During the site visit and the validation exercise, documented evidence regarding the environmental assessments was verified.

1.4 The names and roles of the validation team members

Name	***Role***
Fabian Gonçalves – SGS Brazil	Lead Assessor
Geisa Principe – SGS Brazil	Local Assessor

Statement of Competence of team members are attached at Annex IV.

2. Methodology

2.1 Review of CDM-PDD and additional documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline. Additional information can be required to complete the validation, which may be obtained from public sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by the local SGS affiliate. The results of this local assessment are summarized in Annex 1 to this report.

2.2 Use of the validation protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

- it organises, details and clarifies the requirements the project is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation.

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements are linked to checklist questions the project should meet.	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**Y**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **New Information Request (NIR)** is used when the validation team has identified a need for further clarification.*

The completed validation protocol for this project is attached as Annex 2 to this report

2.3 Findings

As an outcome of the validation process, the team can raise different types of findings

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR).** A CAR

is issued, where:

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a NIR may result in a CAR. Information or clarifications provided as a result of an NIR may also lead to a CAR.

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

Corrective Action Requests and New Information Requests are raised in the draft validation protocol and detailed in a separate form (Annex 3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to NIRs and Observations.

2.4 Internal quality control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

3. Determination Findings

3.1 Participation requirements

Brazil is listed as the host Party. Brazil ratified the Kyoto Protocol on 23rd August 2002. (http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf).

At time of the validation, no Letter of Approval from the host country had been provided. The Letter of Approval will be signed when the DNA of Brazil receive and analyse the validation report.

3.2 Baseline selection and additionality

From the discussion provided in the PDD, it was not possible to conclude if the project is additional under the CDM rules. The discussion of additionality was not clear and was not supported by objective evidences and information:
Section B.5, step 1: the project used the "Tool" to demonstrate additionality. According with step 1a its necessary to include another real alternative to the project.
Step 1b: provide the specific legal requirements that the project is complying.
Step 3, investment barrier: please provide the specific information about guaranties requested and document to confirm this affirmation. As mentioned in the PDD, the project faces extra financial risks; which are the risks and how could be proved. The PPA is also presented as one of the barrier faced; which are the problems faced regarding PPA and ARS project, please provide copy of the PPA or other document to confirm this barrier.
The Selic rate is mentioned in the discussion of the investment barrier. It's not possible to conclude the relation between project activity and Selic rate because it was not presented the IRR or financial analysis.
There many information without relation with project activity (section B.5 para 4º, 6º, 7º). The information presented should be specific and related to the barrier faced by the project activity.
Institutional barrier: please, provide reference of the information presented (documents, link, etc.)
Prevailing practice barrier: again presents the information about PROINFA in general. The discussion should be specific to the project. It's not possible to conclude that the project faces the prevailing practice barrier.
Step 3b: please, provide evidence of the information presented (document, link, etc.)
Step 4a: please, provide evidence of the information presented.
Step 4b: the project does not follow the "Tool". In this section is required to present the discussion of similar options that are occurring.
The "Tool" does not require the step "Conclusion". Please rephrase. CAR 4 was raised.
To close out CAR 4, the discussion of additionallity was completely revised by the client. The "Tool" (applied for large scales projects) was replaced for Attachment A to Appendix B. The references asked were included in the PDD and confirmed. The barriers analysis (financial barriers) is not consistent; however the project's participants excluded the discussion of the PDD.
Barrier due to Prevailing Practice was used by project developer to discuss the additionality. The main point says respect to small participation of small hydro plants in Brazilian power market. It was confirmed that is common practice in Brazil the building of large hydroelectric plants and thermal fossil

fuel plants. To evidences this discussion references from ANEEL was presented. CAR 4 was closed out.

As the project provided an explanation to show that the project activity would not have occurred anyway due to at least one of the barriers required for the small scale project activities, ARS Small Hydroelectric Power Plant was considered additional.

3.3 Application of Baseline methodology and calculation of emission factors

The project applies correctly the methodology for Small Scale Project Activity Type 1: Renewable energy projects. Category, D: Grid connected renewable electricity generation, version10.

The installed capacity mentioned in the PDD version 1 is 5.8MW. According to ANEEL document (Despacho Nº2519, 30 October 2006) the installed capacity is 6.66MW. Provide the correct installed capacity and evidence accordingly. NIR 8 was raised.

Confirmed that the installed capacity is 6.66 MW (15MW - the limit for small scale projects) according Despacho nº2519 and Resolution nº911 issued by ANEEL. NIR 8 was closed out.

The information presented in section B.2 of the PDD (justification of the choice of the project activity) should be according small scale methodology. NIR 3 was raised.

The ARS qualifies under this project category (AMS ID) since the project activity is a hydroelectric power plant and the project activity supplies electricity to the Brazilian interconnected grid. NIR 3 was closed out.

ARS Small hydroelectric power plant uses the renewable hydro potential of the Von Den Steinen River to generate electricity with 6.66 MW of total installed capacity (less than the eligibility limit of 15 MW for small scale projects). This activity confirms with category I.D Renewable electricity generation for a grid, that comprises renewable energy generation units that supply electricity to an electricity distribution system that is or would have been supplied by at least one fossil fuel or non-renewable biomass fired generation unit.

It was verified on site that the project is not a debundled component of a larger activity. The project is located in the Von Den Steinen River and is an independent hydro power plant generating electricity and supplying to the grid, unrelated to any other CDM project activity in the region. In addition, the UNFCCC website was verified and does not show another registered project with the same characteristics in the same place.

Baseline calculations followed the Appendix B of the simplified modalities and procedures for small-scale CDM project activities. The baseline emissions were calculated as the amount of kWh produced by the renewable generating unit multiplied by an emission coefficient calculated in a transparent and conservative manner. For calculation of the emission factor, the ACM0002 version 6 was used, as indicated by the methodology.

The EF calculation should use the most recent data available. The data of the year 2006 is already available and should be used in the project. Please provide the EF considering the years 2004-2006. NIR 5 was raised. The PDD was revised. The Emission factor was recalculated considering the most recent data available (years 2004-2006). Copy of the spreadsheet was provided. NIR 5 was closed out.

The data and formula for calculation of the EF were checked and it was possible to confirm the information provided in the PDD. The parameters were calculated ex-ante based.

The grid emission factor calculated from OM and BM emission factors above mentioned and applied for baseline emission reductions estimative was 0.283 tCO_2/MWh. It is considered fixed along the first crediting period. It was verified that the estimative of Baseline Emissions, Project Emissions and

Emissions Reductions was calculated applying the correct emission factor and the formulas required by the methodology, as described in the PDD version 2.

3.4 Application of Monitoring methodology and Monitoring Plan

During the desk study, it was verified that the description of the Monitoring Plan was not complete. The monitoring plan should be clearly detailed in the PDD. Provide the following information: responsibilities, project structure, procedures, data register, data report, etc. Please follow the PDD guidelines. Also annex 4 should contain the emergency plan, training, calibration, responsibilities, internal audit, corrective actions, maintenance, etc. NIR 7 was raised.

The revised PDD version 2 presents some information about the monitoring plan. The project is under construction and not operational yet. The applicable procedures will be prepared and implemented covering the aspects to warrant the quality and the reliability of the monitoring process, including: procedures for training, procedures for quality assurance and calibration, procedures for archiving and back-up, procedures for recording data.

Also it was verified the contract between Tecnovolt and Cemat (VPMI nº024/2006) that defines the responsibilities for operation, maintenance, measure equipments. NIR 7 was closed out.

In the PDD version 1 Section B.6.2: some parameters are missing. Please include: EF, EF operating margin, EF build margin, lambda. CAR 6 was raised.

The revised version 2 of the PDD presents the correct parameters available during validation and fixed ex-ante. CAR 6 was closed out.

Project emissions are applicable because the power density is grater than 4W/m2 and less than 10W/m2. The estimate project emissions are correctly presented in the PDD.

The detailed monitoring plan with procedures will be prepared before project operation. The information provided (PDD and documents) presents good monitoring practice appropriate to the selected methodology and project activity.

3.5 Project design

Some information provided in the PDD can not be confirmed. Please provide the link of the information mentioned in the PDD 4th paragraph (section A.2). “The hydroelectric potential in commercial…” NIR 1 was raised. The information mentioned in section A.2 of the PDD is not applicable and was excluded in the revised version 2 of the PDD. NIR 1 was closed out.

As described in the PDD the project doesn’t make use of the PROINFA program, but this information is presented in several sections of the PDD (A.2, B.5). It is not possible to conclude the relation between project activity and PROINFA, please clarify this information accordingly. NIR 2 was raised.
The PDD was revised and the information about Proinfa program is used in order to explain the Brazilian Federal Program. NIR 2 was closed out.

The operational lifetime assumed is 25 years. This exceeds the crediting period.

The generation system described in the PDD is according to the contracts and documents verified on site by the local assessors. It was presented the document ANEEL (Document Nº 911, 16th November 2004), which informed the installed capacity of 6.66 MW. This information was confirmed on site by the assessors.

The other information presented in the final PDD (location, specification, total amount of electricity generated and sources of external data and references regarding baseline scenario and additionality) was accurate and reliable, as confirmed by the validation team.

The project design engineering reflects current good practices and is not likely to be substituted by other or more efficient technologies within the project period. Small hydro is considered to be one of the most cost effective power plants in Brazil.

3.6 Environmental Impacts

The project with a power capacity of 6.66 MW, is a low impact plant whose dam. Considering this characteristics, it was not expected to have significant adverse environmental impacts from this kind of project.

In order to obtain the necessary environmental license the simplified environmental report was prepared and sent to the State environmental agency. The following documents were verified and copy was provided:

- Projeto de Exploração Florestal (reservoir), Relatório Ambiental Simplificado (environmental report), Tecnovolt Centrais Elétricas S.A. – PCH/ARS, June 2007.

- Preliminary license, n° 1132, issued by Secretaria de Estado do Meio Ambiente (SEMA) on 23rd January 2007.

- Installation license, n° 984, SEMA on 23rd January 2007.

- Installation license, n° 1096, issued by SEMA on 28th February 2007 (valid for two years, until February 2009). Besides the license mentions the installed capacity of 5.8MW of the ARS hydro power plant, the correct installed capacity is 6.6MW according ANEEL Despacho nº911, 16th November 2004.

It was confirmed that the project has been implemented in compliance with the legal requirements related to environmental impacts.

3.7 Local stakeholder comments

The local stakeholder consultation is required by Brazilian DNA. During the site visit, it was verified the complete list of names of the local stakeholders consulted. The letters sent to local stakeholders were verified.

The following stakeholders were invited to participate in this process:

- Municipality (NovaUbiratã)
- Alderman Chamber (NovaUbiratã)
- Municipal Environmental Agency (NovaUbiratã)
- State Environmental Agency:
  SEMA/MT – Secretaria de Estado do Meio Ambiente
- Brazilian Forum of NGOs – Forum Brasileiro de ONGs e Movimentos Sociais para o Meio Ambiente e Desenvolvimento.
- Community Association (NovaUbiratã)
- Public Ministry (NovaUbiratã)
- Aneel (electrical regulatory agency

The explanation about comments received from local stakeholders was included in the PDD, section E.2 and E.3.

4. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this project.

4.1 Description of how and when the PDD was made publicly available

The PDD and the monitoring plan for this project were made available on the SGS website http://cdm.unfccc.int/Projects/Validation/DB/VBSEM1SUFCWJTS5SB5ACJQFO9Q56QH/view.html and were open for comments from 18 April to 17 May 2007. Comments were invited through the UNFCCC CDM homepage

4.2 Compilation of all comments received

Comment number	*Date received*	*Submitter*	*Comment*
0			

4.3 Explanation of how comments have been taken into account

No comments received.

5. Validation opinion

Steps have been taken to close out eight findings.

SGS has performed a validation of project: ARS Small Hydroelectric Power plant. The validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide consistent project operations, monitoring and reporting.
Using a risk based approach, the validation of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria.

By the displacement of fossil fuels by renewable energy sources in the generation of electricity, the project results in reducing greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the barrier presented demonstrates that the proposed project activity was not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. If the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

The validation is based on the information made available to SGS and the engagement conditions detailed in the report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM

project cycle. Hence SGS can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

6. List of persons interviewed

Date	*Name*	*Position*	*Short description of subject discussed*
22-23 July 2007	João Franco	Consultant - MGM	Technical issues, findings, monitoring plan, baseline, licenses.
22-23 July 2007	Victor Pulz	Consultant – MGM	Technical issues, findings, licenses.
22-23 July 2007	Gisely R.D.Campos	Consultant - Tecnovolt	Licenses, stakeholder consultation process, findings, operational issues, monitoring plan.
22-23 July 2007	Miguel A. Faitta	Administrator - Tecnovolt	Licenses, stakeholder consultation process, findings, operational issues, monitoring plan.

7. Document references

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the project, (i.e. the CDM Project Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

/1/ Project Design Document, ARS Small Hydroelectric Plant, Version 1 (09/03/2007), Version 2 (05/08/2007).

/2/ AMS-I.D: - Grid connected renewable electricity generation (Simplified baseline and monitoring methodologies for selected small scale CDM project activity - Type I – Renewable Energy Projects/ I.D. Grid connected renewable electricity generation), Version 10 (23/12/2006).

Category 2 Documents (background documents used to check project assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):

/3/ ANEEL documents

/4/ (a) Preliminary environmental license; (b) License for installation; (c) License for installation

/5/ Starting date of the project (evidence)

/6/ Social contract of the company responsible for the project

/7/ CERs calculation spreadsheet (Excel)

/8/ Emission Factor spreadsheet – data used for calculation

/9/ PPA VPMI 022/2006, 023/2006, 024/2006

/10/ Environmental report.

Annex 1 - Local assessment checklist VAL 0950BR04

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document. It serves as a "reality check" on the project. It is to be completed by a local assessor from SGS Brazil

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Confirm the installed capacity informed in the PDD.	It was confirmed 6.6 MW of the installed capacity. Copy was proved; ANEEL document, Nº 911, 16th November 2004.	Site visit/DR	No
Confirm the locality. Check if the project is not a debundled project.	Confirmed in the ANEEL document, Nº 911. The Coordinates are 13º05'57" South, 54º49'08"West. Verified on site visit that ARS project is not debundled of a larger CDM project activity.	Site visit/DR	No
Confirm the reservoir area (check the environmental license and studies, check maps or topographic maps of the dam).	It was verified the reservoir is of 1.64Km² (confirmed in the ANEEL document n°911).	Site Visit/DR	No
Give evidences of who is the responsible part of the project. For example, confirm if the company's name is shown in ANEEL licenses or environmental licenses.	Confirmed that Tecnovolt Centrais Elétricas Ltda is the responsible part of the project (verified ANEEL document, environmental licenses, and contracts).	Site Visit/DR/I	No
Check which evidences confirm the project starting date?	Checked the evidence that confirm the project starting date: ANEEL Resolution nº71, 8 March 2001.	Site Visit/DR	No
Check if they have signed a PPA. If so, provide details.	The Power Purchase Agreement (PPA) was signed between Tecnovolt Centrais Elétricas Ltda and Cemat (Contract VPMI nº022/2006, 07 August 2006).	Site Visit/DR	No

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Check the calculation of OM, BM and the emission factor of the grid (formulas and data used for the calculation). Ask for the complete spreadsheets with data used. Ask copy of this spreadsheet.	The calculation was checked during validation assessment (on-site by local assessor). Copy of the spreadsheet was provided.	Site Visit/DR	No
Confirm the letter and material sent to the stakeholders (language, media etc).	Confirmed. The letters were sent to stakeholders in local language.	Site Visit/DR	No

ANNEX 2 - VALIDATION PROTOCOL CDM.VAL0950 BR04

THIS VALIDATION PROTOCOL IS DESIGNED TO ENSURE THAT THE PROJECT MEETS THE REQUIREMENTS FOR CDM PROJECTS THAT ARE DETAILED IN PARAGRAPH 37 OF THE CDM MODALITIES AND PROCEDURES. EACH REQUIREMENT IS COVERED IN A SEPARATE TABLE. THE FOLLOWING REQUIREMENTS ARE DISCUSSED IN THIS PROTOCOL:

Requirement	Description	
Participation requirements	The participation requirements as set out in Decision 17/CP7 need to be satisfied	Covered in table 1
Baseline and monitoring methodology	The baseline and monitoring methodology complies with the requirements pertaining to a methodology previously approved by the Executive Board	Baseline methodology is covered in table 9 Monitoring methodology is covered in table 9
Additionality	The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity	Covered in table 9

Monitoring plan	Provisions for monitoring, verification and reporting are in accordance with relevant decisions of the COP/MOP	Covered in table 9
Environmental impacts	Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party;	Covered in table 9
Comments by local stakeholders	Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated operational entity on how due account was taken of any comments has been received;	Covered in Table 7
Other requirements	The project activity conforms to all other requirements for CDM project activities in relevant decisions by the COP/MOP and the Executive Board.	Covered in Table 8

SMALL SALE PROJECTS AND AR PROJECTS HAVE SPECIFIC REQUIREMENTS WHICH ARE COVERED IN TABLE 9-11. SMALL SCALE SSC PROJECTS HAVE SPECIAL REQUIREMENTS WHICH MIGHT DEVIATE FROM THE REQUIREMENTS OF OTHER CDM PROJECTS. THESE REQUIREMENTS ARE TESTED IN TABLE 9. PLEASE NOTE THAT SOME QUESTIONS IN TABLE 9 OVERLAP WITH QUESTIONS IN THE OTHER TABLES. WHERE THE QUESTIONS IN TABLE 9 CONTRADICT OR OVERLAP QUESTIONS ELSEWHERE IN THE CHECKLIST, THE QUESTIONS IN TABLE 9 SHALL PREVAIL. FOR THE VALIDATION OF SMALL SCALE PROJECTS, ASSESSOR IS REQUIRED TO ADDRESS THE QUESTIONS IN TABLE 9 FIRST BEFORE STARTING WITH THE QUESTIONS IN THE OTHER TABLES.

FURTHER REMARKS ON THE USE OF THIS DOCUMENT:

- text in *italic blue* is meant as guidance for the assessor
- MoV = Means of Verification, DR= Document Review, I= Interview

This protocol should be adapted as required. For example, if the project is not a small scale project or an AR project, some tables can be deleted.

TABLE 1 PARTICIPATION REQUIREMENTS FOR CLEAN DEVELOPMENT MECHANISM (CDM) PROJECT ACTIVITIES (REF PDD, LETTERS OF APPROVAL AND UNFCCC WEBSITE)

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	DR	PDD	There is no Annex I Party involved in this project.	Ok	Ok
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	DR	PDD	No Letter of approval by host country (Brazil) has been submitted to the validator. The LoA will be sent after the Brazilian DNA analyse and approve the project.	Send the validation report to DNA.	
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	PDD	UNFCCC Web site	Yes. Brazil ratified the protocol on 23 August 2002. http://maindb.unfccc.int/public/country.pl?country=BR	Ok	Ok
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario	PDD	DR	The project activity reduces emissions of greenhouse gas (GHG) as the result of the displacement of generation from fossil-fuel thermal plants that would have otherwise been delivered to the interconnected grid.	Ok	Ok
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available	DR	PDD UNFCCC web site	Yes, PDD was publicly available from 18 April to 17 May 2007. http://cdm.unfccc.int/Projects/Validation/DB/VBSEM1SUFCWJTS5SB5ACJQFO9Q56QH/view.html No comments were received.	Ok	Ok
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance	DR	PDD	Yes; it was used the current version (version 03) of the PDD.	Ok	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR	PDD	The project does not made use of ODA.	Ok	Ok
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?			N/A		
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects			Yes, see table 9.	Ok	Ok
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment.	DR	PDD	Yes, the current version was used.	Ok	Ok
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	DR	PDD Site visit	Some information can not be confirmed. Please provide the link of the information mentioned in the PDD 4th paragraph (section A.2). “The hydroelectric potential in commercial…” NIR 1 was raised. The information mentioned in section A.2 of the PDD is not applicable and was excluded in the revised version 2 of the PDD. NIR 1 was closed out. As described in the PDD the project doesn’t make use of the PROINFA program, but this information is presented in several sections of the PDD (A.2, B.5). It is not possible to conclude the relation between project activity and PROINFA, please clarify this	NIR 1 NIR 2	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
			information accordingly. NIR 2 was raised. The PDD was revised and the information about Proinfa program is used in order to explain the Brazilian Federal Program. NIR 2 was closed out.		

TABLE 2 BASELINE METHODOLOGY(IES) (REF: PDD SECTION B AND E AND ANNEX 3 AND AM) - NA

Table 3 Additionality (Ref: PDD Section B3 and AM) - NA

Table 4 Monitoring methodology (PDD Section D and AM) - NA

Table 5 Monitoring plan (PDD Annex 4)- NA

Table 6 Environmental Impacts (Ref PDD Section F and relevant local legislation) - NA

Table 7 Comments by local stakeholders (Ref PDD Section G) - NA

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD/ Letters	DR Site visit	According to Resolution 1 of DNA (Comissão Interministerial) article 3º "all agents that are affected by the project must be consulted. The ARs (evidences of mail) were provided.	Ok	Ok
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD/ Letters	DR	Yes.	Ok	Ok
7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD/ Letters	DR	It was possible to check during the desk study that the stakeholder consultation process was carried out in accordance with the DNA requirements. The PDD provide a list of the stakeholders consulted.	Ok	Ok
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	Yes. The summary was included in the PDD.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	Yes, comments received, but it is not necessary change in the PDD.	Ok	Ok

TABLE 8 OTHER REQUIREMENTS

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	Yes, it was correctly applied.	Ok	Ok
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Yes, it was correctly applied.	Ok	Ok
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR/I Site Visit	Yes.	Ok	Ok
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR/I Site Visit	It is the technology applied for small hydroelectric plants.	Ok	Ok
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR/I	It was not expected.	Ok	Ok
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR/I	It was verified during site visit that operators will be trained on the operation system, monitoring and maintenance procedures.	Ok	Ok
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date	PDD	DR	Yes, 08 March 2001 when	Ok	Ok

CHECKLIST QUESTION		Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
	and operational lifetime clearly defined and reasonable?			authorization to generate energy was issued by ANEEL. The operational lifetime is 25 years.		
8.3.2	Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. three x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	The crediting period is clearly informed in the PDD. The tables presenting the estimated emission reductions through the first 7-year crediting period consider the correct period.	Ok	Ok
8.3.3	Does the project's operational lifetime exceed the crediting period	PDD	DR	Yes.	Ok	Ok

TABLE 9 ADDITIONAL REQUIREMENTS FOR SSC PROJECTS

CHECKLIST QUESTION		Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
SSC projects use the SSC PDD and simplied baseline and monitoring methodologies as detailed in Appendix B (to the Modalities and Procedures for Small scale CDM projects, Annex II to Decision 21/CP.8) Indicative simplied baseline and monitoring methodologies for selected small scale CDM project activity categories						
9.1	Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	PDD	DR	Yes, but the installed capacity mentioned in the PDD version 1 is 5.8MW. According to ANEEL document (Despacho Nº2519, 30 October 2006) the installed capacity is 6.66MW. Provide the correct installed capacity and evidence accordingly. NIR 8 was raised. Confirmed that the installed capacity is 6.66 MW (15MW - the limit for small scale projects) according Despacho nº2519 and Resolution nº911 issued by ANEEL. NIR 8 was closed out. The information presented in section B.2	NIR 8 NIR 3	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			of the PDD (justification of the choice of the project activity) should be according small scale methodology. NIR 3 was raised. The ARS qualifies under this project category (AMS ID) since the project activity is a hydroelectric power plant and the project activity supplies electricity to the Brazilian interconnected grid. NIR 3 was closed out.		
9.2 The project conforms to one of the categories listed in Appendix B to Annex II to Decision 21/CP8	PDD	DR	Yes, ID – Grid connected renewable electricity generation.	Ok	Ok
9.3 The small scale project activity is not a debundled component of a larger project activity?	PDD	DR/I	Verified during site visit by interview and UNFCCC website that the project activity is not debundled of a larger activity, there is no other project registered in the same place.	Ok	Ok
9.4 PDD has been prepared in accordance with appendix A of Annex II to Decision 21/CP8	PDD	DR	Yes, the current version is correctly applied.	Ok	Ok
9.5 The project uses a simplified baseline and monitoring methodology specified in Appendix B. If not, they may propose changes to the meths or a new SSC project category	PDD	DR	The project applied AMS type I, renewable energy projects. Category I.D – grid connected renewable electricity generation, version 10.	Ok	Ok
9.6 Is there any bundling of SSC activities into one PDD? If so, does the monitoring plan consider sampling of activities? Refer to para 19 of Annex II. Also, note bundling provisions in SSC Briefing Note and SSC meths I C / I D and III D and Para 22e of Appendix B	PDD	DR	No.	Ok	Ok
9.7 Is EIA required by host party? If not, none is required irrespective of SHC. If yes, has one been performed	PDD	DR	In order to obtain the necessary environmental license the simplified	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
consistent with local requirements?			environmental report was prepared and sent to the State environmental agency. - Projeto de Exploração Florestal (reservoir), Relatório Ambiental Simplificado (environmental report), Tecnovolt Centrais Elétricas S.A. – PCH/ARS, June 2007. - Preliminary license, n° 1132, issued by Secretaria de Estado do Meio Ambiente (SEMA) on 23rd January 2007. - Installation license, n° 984, SEMA on 23rd January 2007. - Installation license, n° 1096, issued by SEMA on 28th February 2007 (valid for two years, until February 2009). Besides the license mentions the installed capacity of 5.8MW of the ARS hydro power plant, the correct installed capacity is 6.6MW according ANEEL Despacho nº911, 16th November 2004. It was confirmed that the project has been implemented in compliance with the legal requirements related to environmental impacts.		
9.8 The project results in emission reductions that area additional in accordance with the following requirements: (para 26) The project is additional if emissions are reduced below those in the absence of the project (Para 27) Simplified baseline can be used; if not, baseline proposed shall cover all gases,	PDD	DR	From the discussion provided in the PDD, it was not possible to conclude if the project is additional under the CDM rules. The discussion of additionality was not clear	CAR 4	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
sectors and sources listed in Annex A to the KP Para 28) One or more barriers as detailed in attachment A to Appendix B to Annex II will be used to demonstrate that the project would not proceed without the CDM			and was not supported by objective evidences and information. Section B.5, step 1: the project used the "Tool" to demonstrate additionality. According with step 1a its necessary to include another real alternative to the project. Step 1b: provide the specific legal requirements that the project is complying. Step 3, investment barrier: please provide the specific information about guaranties requested and document to confirm this affirmation. As mentioned in the PDD, the project faces extra financial risks; which are the risks and how could be proved. The PPA is also presented as one of the barrier faced; which are the problems faced regarding PPA and ARS project, please provide copy of the PPA or other document to confirm this barrier. The Selic rate is mentioned in the discussion of the investment barrier. It's not possible to conclude the relation between project activity and Selic rate because it was not presented the IRR or financial analysis. There many information without relation with project activity (section B.5 para 4º, 6º, 7º). The information presented should be specific and related to the barrier faced		

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			by the project activity. Institutional barrier: please, provide reference of the information presented (documents, link, etc.) Prevailing practice barrier: again presents the information about PROINFA in general. The discussion should be specific to the project. It's not possible to conclude that the project faces the prevailing practice barrier. Step 3b: please, provide evidence of the information presented (document, link, etc.) Step 4a: please, provide evidence of the information presented. Step 4b: the project does not follow the "Tool". In this section is required to present the discussion of similar options that are occurring. The "Tool" does not require the step "Conclusion". Please rephrase. CAR 4 was raised. To close out CAR 4, the discussion of additionallity was completely revised by the client. The "Tool" (applied for large scales projects) was replaced for Attachment A to Appendix B. The references asked were included in the PDD and confirmed. The barriers analysis (financial barriers) is not consistent; however the project's participants excluded the discussion of the PDD. Barrier due to Prevailing		

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Practice was used by project developer to discuss the additionality. The main point says respect to small participation of small hydro plants in Brazilian power market. It was confirmed that is common practice in Brazil the building of large hydroelectric plants and thermal fossil fuel plants. To evidences this discussion references from ANEEL was presented. CAR 4 was closed out.		
9.9 Leakage is calculated according to the provisions of the SSC methodologies in Appendix B (http://cdm.unfccc.int/Projects/pac/sslistmeth.pdf)	PDD	DR	Leakage is not applicable.	Ok	Ok
9.10 The project boundary shall be constructed in accordance with the requirements of the SSC meths in Appendix B	PDD	DR	The boundary of project activities encompasses the ARS plant and the South-Southeast-Midwest national system.	Ok	Ok
9.11 The Monitoring plan shall be consistent with the requirements of the SSC methodology in Appendix B and shall provide for the collection and archiving of data needed to determine project emissions, baseline emissions and leakage.	PDD	DR	The description of the Monitoring Plan was not complete. The monitoring plan should be clearly detailed in the PDD. Provide the following information: responsibilities, project structure, procedures, data register, data report, etc. Please follow the PDD guidelines. Also annex 4 should contain the emergency plan, training, calibration, responsibilities, internal audit, corrective actions, maintenance, etc. NIR 7 was raised. The revised PDD version	NIR 7	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			2 presents some information about the monitoring plan. The project is under construction and not operational yet. The applicable procedures will be prepared and implemented covering the aspects to warrant the quality and the reliability of the monitoring process, including: procedures for training, procedures for quality assurance and calibration, procedures for archiving and back-up, procedures for recording data. Also it was verified the contract between Tecnovolt and Cemat (VPMI nº024/2006) that defines the responsibilities for operation, maintenance, measure equipments. NIR 7 was closed out. Section B.6.1 of the PDD: please provide the calculated values. The EF calculation should use the most recent data available. The data of the year 2006 is already available and should be used in the project. Please provide the EF considering the years 2004-2006. NIR 5 was raised. The PDD was revised. The Emission factor was recalculated considering the most recent data available (years 2004-2006). Copy of the spreadsheet was provided. NIR 5 was closed out.	NIR 5	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Section B.6.2: some parameters are missing. Please include: EF, EF operating margin, EF build margin, lambda. CAR 6 was raised. The revised version 2 of the PDD presents the correct parameters available during validation and fixed ex-ante. CAR 6 was closed out. Verified through ANEEL Despacho nº911 that the reservoir area is 1.64km2: Installed capacity: 6.66MW Power density: 4.06W/m2 Project emissions are applicable because the power density is grater than 4W/m2 and less than 10W/m2. The estimate project emissions are correctly presented in the PDD.	CAR6	
9.12 The monitoring plan shall present good monitoring practice appropriate to the circumstances of the project activity (para 33)	PDD	DR	The detailed monitoring plan with procedures will be prepared before project operation. The information provided (PDD and documents) presents good monitoring practice appropriate to the selected methodology and project activity.	Ok	Ok
9.13 If project activities are bundled, separate monitoring plan shall be prepared for each of the activities or an overall plan reflecting good monitoring practice will be prepared, consistent with the above requirements	PDD	DR	The project is not bundled.	Ok	Ok

Annex 3 - FINDINGS OVERVIEW

Findings from validation of ARS – cdm.val0950 br04

Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.

Description of table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.

Please note that this is an open list and more findings may be added as validation progresses.

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
1	NIR	Please provide the link of the information mentioned in the PDD 4th paragraph (section A.2). "The hydroelectric potential in commercial…"	1.11
Date: 09/08/2007 [Comments]: In the new version of the PDD, this paragraph was excluded.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The information mentioned in section A.2 of the PDD is not applicable and was excluded in the revised version 2 of the PDD. NIR 1 was closed out.			

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
2	NIR	As described in the PDD the project doesn't make use of the PROINFA program, but this information is presented in several sections of the PDD (A.2, B.5). It is not possible to conclude the relation between project activity and PROINFA, please clarify this information accordingly.	1.11
Date: 06/08/2007 [Comments]: The section B.5 of the PDD was updated (version 2), and the explanation regarding the Proinfa was excluded. In section A.2 of the PDD, the mention to Proinfa is only to expose that the project is according to the Brazilian Federal Program.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The PDD was revised and the information about Proinfa program is used in order to explain the Brazilian Federal Program. NIR 2 was closed out.			

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
3	NIR	The information presented in section B.2 of the PDD (justification of the choice of the project activity) should be according small scale methodology.	9.1
Date: 05/08/2007. The PDD was updated, and the information was changed in order to comply with the requesting.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The ARS qualifies under this project category (AMS ID) since the project activity is a hydroelectric power plant and the project activity supplies electricity to the Brazilian interconnected grid. NIR 3 was closed out.			

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
4	CAR	Section B.5, step 1: the project used the "Tool" to demonstrate additionality. According with step 1a its necessary to include another real alternative to the project. Step 1b: provide the specific legal requirements that the project is complying. Step 3, investment barrier: please provide the specific information about guaranties requested and document to confirm this affirmation. As mentioned in the PDD, the project faces extra financial risks; which are the risks and how could be proved. The PPA is also presented as one of the barrier faced; which are the problems faced regarding PPA and ARS project, please provide copy of the PPA or other document to confirm this barrier. The Selic rate is mentioned in the discussion of the investment barrier. Its not possible to conclude the relation between project activity and Selic rate because it was not presented the IRR or financial analysis. There many information without relation with project activity (section B.5 para 4º, 6º, 7º). The information presented should be specific and related to the barrier faced by the project activity. Institutional barrier: please, provide reference of the information presented (documents, link, etc.) Prevailing practice barrier: again presents the information about PROINFA in general. The discussion should be specific to the project. It's not possible to conclude that the project faces the prevailing practice barrier. Step 3b: please, provide evidence of the information presented (document, link, etc.) Step 4a: please, provide evidence of the information presented. Step 4b: the project does not follow the "Tool". In this section is required to present the discussion of similar options that are occurring. The "Tool" does not require the step "Conclusion". Please rephrase.	9.8
Date: 06/08/2007 [Comments]: The project is now applying the Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities, and the explanation regarding the Brazilian electricity market in the last years and the presented barrier, such as: - Prevailing Business Practice clearly demonstrates that ARSSHP is not a business-as-usual scenario in a country where large hydro and thermal fossil fuel projects are preferable.			
Date: 10/09/2007 – Fabian Gonçalves.			

[Acceptance and close out]: Barrier due to Prevailing Practice was used by project developer to discuss the additionality. The main point says respect to small participation of small hydro plants in Brazilian power market. It was confirmed that is common practice in Brazil the building of large hydroelectric plants and thermal fossil fuel plants. To evidences this discussion references from ANEEL was presented. CAR 4 was closed out.

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
5	NIR	Section B.6.1 of the PDD: please provide the calculated values. The EF calculation should use the most recent data available. The data of the year 2006 is already available and should be used in the project. Please provide the EF considering the years 2004-2006.	9.11
Date: 06/08/2007 [Comments]: The PDD was updated with the data of the year 2006.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The PDD was revised. The Emission factor was recalculated considering the most recent data available (years 2004-2006). Copy of the spreadsheet was provided. NIR 5 was closed out.			

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
6	CAR	Section B.6.2: some parameters are missing. Please include: EF, EF operating margin, EF build margin, lambda.	9.11
Date: 09/08/2007 [Comments]: The EF Operating Margin, EF Build Margin and Lambda were included in section B.6.2.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The revised version 2 of the PDD presents the correct parameters available during validation and fixed ex-ante. CAR 6 was closed out.			

Date: 19/07/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
7	NIR	The monitoring plan should be clearly detailed in the PDD. Provide the following information: responsibilities, project structure, procedures, data register, data report, etc. Please follow the PDD guidelines. Also annex 4 should contain the emergency plan, training, calibration, responsibilities, internal audit, corrective actions, maintenance, etc.	9.11
Date: 09/08/2007 [Comments: In section B.7.2 of the PDD, it was stated that during the period preceding the first crediting period, an internal written procedure will be prepared, covering the aspects to warrant the quality and the reliability of the monitoring process.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: The revised PDD version 2 presents some information about the monitoring plan. The project is under construction and not operational yet. The applicable procedures will be prepared and implemented covering the aspects to warrant the quality and the reliability of the monitoring process, including: procedures for training, procedures for quality assurance and calibration, procedures for archiving and back-up, procedures for recording data. Also it was verified the contract between Tecnovolt and Cemat (VPMI nº024/2006) that defines the responsibilities for operation, maintenance, measure equipments. NIR 7 was closed out.			

Date: 02/08/2007 Raised by: Fabian Gonçalves

No.	Type	Issue	Ref
8	NIR	The installed capacity mentioned in the PDD is 5.8MW. According to ANEEL document (Despacho Nº2519, 30 October 2006) the installed capacity is 6.6MW. Provide the correct installed capacity and evidence accordingly.	9.1
Date: 09/08/2007 [Comments: The installed capacity value was corrected in the PDD. These data are specified in ANEEL resolution number 911, issued on 16 November 2004.			
Date: 10/09/2007 – Fabian Gonçalves. [Acceptance and close out]: Confirmed that the installed capacity is 6.6 MW (15MW - the limit for small scale projects) according Despacho nº2519 and Resolution nº911 issued by ANEEL. NIR 8 was closed out.			

Annex 4 - Statement of Competence

Name:Fabian Goncalves SGS Affiliate:SGS Brazil

Status

- Product Co-ordinator ☒
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☐

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☒
2. Energy Distribution ☐
3. Energy Demand ☐
4. Manufacturing ☒
5. Chemical Industry ☒
6. Construction ☐
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and ☐

Consumption of Halocarbons and Sulphur Hexafluoride

12. Solvent Use ☐
13. Waste Handling and Disposal ☒
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Marco van der Linden Date: 27/07/2006

Statement of Competence

Name:Geisa Principe SGS Affiliate:SGS Brazil

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☐

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☐	☐
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1.	Energy Industries (renewable / non-renewable)	☒
2.	Energy Distribution	☐
3.	Energy Demand	☐
4.	Manufacturing	☐
16.	Chemical Industry	☐
17.	Construction	☐
18.	Transport	☐
19.	Mining/Mineral Production	☐
20.	Metal Production	☐
21.	Fugitive Emissions from Fuels (solid,oil and gas)	☐
22.	Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
23.	Solvent Use	☐
24.	Waste Handling and Disposal	☐
25.	Afforestation and Reforestation	☐
26.	Agriculture	☐

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