Validation Report

AES CCIT International Limited C/O AES

Validation of the CDM-Project:

Jaguari Mirim River Hydroelectric Plants

Report No. 1169017

2008, July 24

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
1169017	2008-06-19	1	2008-07-24	-

Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	TÜV SÜD Contract Partner: ----------
Client: AES CCIT International Limited c/o AES 4300 Wilson Boulevard, 11th floor Arlington, VA 22203	Project Site(s): The project is located at the Jaguari Mirim River, downstream from the city of São João da Boa Vista, 4 km downstream for SHP São José, and 14 km downstream for SHP São Joaquim), São Paulo State, Brazil GPS coordinates taken from each power house : SHP São José (46°48'57"W; 21°56'17"S) SHP São Joaquim (46°53'34"W; 21°52'26"S)
Project Title: Jaguari Mirim River Hydroelectric Plants	
Applied Methodology / Version: AMS-I.D. / version 13	**Scope(s):** **1**
First PDD Version: Date of issuance: 2008-03-26 Version No.: 1 Starting Date of GSP 2008-03-29	**Final PDD version:** Date of issuance: 2008-07-21 Version No.: 3
Estimated Annual Emission Reduction:	**8,634 tCO2e**
Assessment Team Leader: Johann Thaler	**Further Assessment Team Members:** ----------

Summary of the Validation Opinion:

☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

Abbreviations

ACM	Approved Consolidated Methodology
ANEEL	Agência Nacional de Energia Elétrica
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
GHG	Greenhouse gas(es)
INMETRO	Instituto Nacional de Metrologia, Normalização e Qualidade Industrial
IRR	Internal Rate of Return
KP	Kyoto Protocol
MP	Monitoring Plan
PDD	Project Design Document
PP	Project Participant
SHP	Small Hydro Plant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM-EB. The ultimate decision on the registration of a proposed project activity rests at the CDM Executive Board and the Parties involved.

The project activity discussed by this validation report has been submitted under the project title:

Jaguari Mirim River Hydroelectric Plants

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM project activities the scope is set by:

- The Kyoto Protocol, in particular § 12
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions by the EB published under http://cdm.unfccc.int
- Specific guidance by the EB published under http://cdm.unfccc.int
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- The applied approved methodology
- The technical environment of the project (technical scope)
- Internal and national standards on monitoring and QA/QC
- Technical guideline and information on best practice

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.

Once TÜV SÜD receives a first PDD version, it is made publicly available on the internet at TÜV SÜD's webpage as well as on the UNFCCC CDM-webpages for starting a 30 day global stakeholder consultation process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP will be repeated) and the final PDD will form the basis for the final evaluation as presented by this report. Information on the first and on the final PDD version is presented at page 1.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD 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.

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed a "cook-book" for methodology-specific checklists and protocol based on the templates presented by the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

The completed validation protocol is enclosed in Annex 1 to this report.

Validation Protocol Table 1: Conformity of Project Activity and PDD				
Checklist Topic / Question	***Reference***	***Comments***	***PDD in GSP***	***Final PDD***
The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.	*Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.*	*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. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any* ***Request*** *has to be substantiated within this column*	*Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (****þ****),* ***or a Corrective Action Request (CAR)*** *due to non-compliance with the checklist question (See below).* ***Clarification Request (CR)*** *is used when the validation team has identified a need for further clarification.*	*Conclusions are presented in the same manner based on the assessment of the final PDD version.*

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	***Ref. to table 1***	***Summary of project owner response***	***Validation team conclusion***
If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".*

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	***Id. of CAR/CR 1***	***Explanation of the Conclusion for Denial***
If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.	*Identifier of the Request.*	*This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion.*

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “climate and energy”. The composition of an assessment team has to be approved by the Certification Body ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Johann Thaler	**ATL**	**þ**	**þ**	**þ**

Johann Thaler, an Assessment Team leader, graduated as Master of environmental Economy at the University of Augsburg. During his study he got first experiences in environmental management systems. His master thesis was about a fuel switch program in Brazil as a CDM project. Based in Brazil he has been working for TÜV SÜD as a GHG auditor on freelance basis since March 2005. He attended and successfully finished a ISO 14001 Environmental Management Internal Auditing Training.

2.2 Review of Documents

The first PDD version submitted by the client and additional background documents related to the project design and baseline were reviewed as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

On April 04, 2008 TÜV SÜD performed an interview on-site with project participants to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of the on-site visit.

Name	Organisation
Demóstenes Barbosa da Silva	AES Tietê S.A., Environmental Director
Clauber Leite	AES Tietê S.A., Environmental Engineer
Samy Hotimsky	AES Tietê S.A., Project Developer
Roberto Sattamini	AES Tietê S.A., Project Director
Marianna Silva	AES Tietê S.A., Environmental analyst
Roberto Kishinami	NRG Ltda, Environmental Consultant

2.4 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD`s positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 below and documented in more detail in the validation protocol in annex 1.

2.5 Internal Quality Control

As final step of a validation the validation report and the protocol have to undergo and internal quality control procedure by the Certification Body “climate and energy”, i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD’s Certification Body whether a project will be submitted for requesting registration by the EB or not.

3 SUMMARY OF FINDINGS

As informed above all findings are summarized in table 2 of the attached validation protocol.

History of the validation process

The audit team has been provided with a draft PDD in March 2008. Based on this documentation a document review and a fact finding mission in form of an on-site audit have taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version 3 submitted in July 2008 serves as the basis for the assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM to achieve a reduction of anthropogenic GHG emissions by sources and to contribute to sustainable development.

Project description

The Jaguari Mirim River Hydroelectric Plants project includes two run-of-river hydroelectric plants with total installed capacity of 7.0 MW. The small hydroelectric plants include SHP São Joaquim (3.0 MW) and SHP São José (4.0 MW) located at the Jaguari Mirim River, in the State of São Paulo, Brasil. Both existing plants are not operational (they were deactivated more than 40 years ago) and require significant investments in new equipment and facilities for energy generation. The hydroelectric plants are considered run-of-river given that they do not require accumulating water for operation. The reservoir is used solely to assure adequate water flow at the intake point. In this way, the hydropower systems use water at a rate no greater than that which runs down the river. The power densities of the hydro plants are 400 W/m2 (SHP São José) and 36,14 W/m2 (SHP São Joaquim).

The main objective of the project is to generate power from clean, renewable hydroelectric power and to supply it to the Brazilian South-Southeast-Midwest interconnected grid while contributing to sustainable regional/local economic development. The project activity reduces emissions of greenhouse gas (GHG) by avoiding electricity generation by fossil fuel sources (and CO_2 emissions), which would be generating (and emitting) in the absence of the project. The basic technical studies were completed in November 2006, and the project proponent plans to initiate technical works at the project site in April 2008. The operation starting date is expected to be October 2009.

Findings

In total the assessment team expressed 1 Clarification Request and 20 Corrective Action Requests.

The key findings during the validation process were related to the provision of information which was missing or not updated, inconsistencies in the information within the PDD and between the PDD and other CDM related documents, to the barrier analysis and.monitoring plan. Besides, parameters were missing or not complete.

Considering these findings the PDD version 1 has been revised and the actual PDD version 3 is in compliance with the CDM requirements.

Baseline calculation

The emissions factor calculation sheet for 2006 has been submitted to the validation team. The calculation of the emissions factor, which has been done by the most important Brazilian project developer, has been verified by the validation team. The validation team can confirm the ex-ante application of the project´s emissions factor of 2006 which is 0.2826 tCO2/MWh. On June 19, 2008 the Brazilian government published the new emissions factor for 2007. The Brazilian DNA decided that all projects, which started the GSP after that date, have to apply the new calculated emissions factor. As the proposed project activity was uploaded to the GSP on March 29, 2008, i.e. clearly before the deadline set up by the Brazilian DNA, TÜV SÜD accepted the application of the 2006 emissions factor.

There are neither project emissions nor leakage involved with the project activity. The calculation for the determination of emission reductions is correctly applied.

The baseline scenario is the continuation of the current situation of electricity supplied by large hydro and thermal power stations from the South-Southeast-Midwest Brazilian interconnected grid.

Additionality

The additionality of the project was checked carefully. In doing so the assessment team has put the main focus on the following issues.

The assessment team has reviewed the proof for the early consideration of the project. The consideration of CDM is evidenced by the AES Tietê S.A. Board Approval in the 169th directors´meeting on November 13, 2007 approving the investment decision. The meeting is clearly dated before the project´s starting date. This one is determined as the date when the purchase contract of the generators were signed, namely on February 12, 2008.

Project participants decided to apply Attachment A to Appendix B of the Simplified modalities and procedures for small-scale clean development mechanism project activities in order to demonstrate additionality.

First of all, alternatives to the proposed project activity are identified. After having excluded those alternatives which are not plausible, only two alternatives, namely the continuation of the status-quo (electricity supplied by large hydro and thermal power stations from the South-Southeast-Midwest Brazilian interconnected grid) which is at the same time the baseline scenario and the proposed project activity without considering CDM revenues are left over.

The barrier analysis shows why the proposed project activity would not have occurred anyway due to the existence of an institutional barrier, investment barrier and barrier due to prevailing practice. Evidences for the barriers mentioned in the PDD have been submitted to the validation team and were verified by the same. The barriers deem to be reasonable in the opinion of the validation team.

The CDM helps alleviate the existing barriers and contribute to AES Tietê´s commitment to increase its portfolio of renewable energy, by funding projects that may generate CERs.

In order to complete the additionality argument, a common practice analysis is performed based on publicly available information provided by ANEEL and CSPE[1]. The references related to the common practice analysis, indicated in the PDD, have been verified by the validation team. TÜV SÜD may confirm, that the figures applied in the common practice analysis, are correct. In the

[1] Comissão de Serviços Publicos de Energia

State of São Paulo, where the proposed project activity is located, there are 38 small hydro power plants in operation, which correspond to approximately 0.65% of the total electricity generated in the State. 36 of those 38 SHPs began operation earlier than 1960, under a different historical context, including a set of barriers not comparable to the ones faced by projects nowadays. Prior to the 1960s, the role of the State was one of significant interference in the productive and financial sectors. Guarantees and credit were available to import and install generation, transmission and distribution equipment. One of the two remaining plants – SHP Mogi Guaçu was constructed by CESP[2], a public utility, with public funding. The other one, SHP Areal, is part of ANEEL´s database for the State of São Paulo, but is located within the State of Minas Gerais. The situation in the State of São Paulo clearly shows that the proposed project can not be considered as common practice.

To conclude the additionality assessment it may be stated that the proposed project activity is without doubt additional.

The project boundary, the project´s starting date as well as the starting date of the crediting period are clearly defined in the last submitted PDD.

Monitoring

Given that the emission factor is calculated and applied for the whole crediting period ex-ante, that there are neither project nor leakage emissions and referring to the methodology AMS-I.D., the only data to be permanently monitored is the net amount of electricity supplied to the grid by the project. The parameter “Net electricity generated by the renewable technology delivered to grid” will be monitored by a bi-directional meter, which will be calibrated based on the standards of INMETRO.
CER calculation is based on the amount delivered to the grid minus the amount purchased from the grid.
The parameter “surface area at full reservoir level” will be monitored once at project start.

[2] Companhia Energética de São Paulo

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, stakeholders and non-governmental organisations during a period of 30 days.

The following table presents all key information on this process:

webpage: http://www.netinform.de/KE/Wegweiser/Ebene1_Projekte.aspx?Ebene1_ID=26&mode=1	
Starting date of the global stakeholder consultation process: 2008-03-29	
Comment submitted by: No comments	**Issues raised:** -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

Jaguari Mirim River Hydroelectric Plants

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is 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. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The validation is based on the information made available to us and the engagement conditions detailed in this 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, TÜV SÜD 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.

Munich, 2008-07-24

Abhishek Goyal

Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Fortaleza, 2008-07-24

Johann Thaler

Assessment Team Leader

Annex 1: Validation Protocol

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A. General description of small-scale project activity				
A.1. Title of the small-scale project activity				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1,2	The project title clearly enables to identify the unique CDM activity.	þ	þ
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1,2	Yes. Version 1, dated 26/03/2008 has been submitted for the GSP.	þ	þ
A.1.3. Is this consistent with the time line of the project's history?	1,2	Yes. It is consistent with the time line of the project´s history.	þ	þ
A.2. Description of the small-scale project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	1,2	Yes. The description is delivering a transparent overview of the project activities. The project activity consists of a run-of-river hydroelectric power plant project with two small hydro plants (SHP Sao Joaquim (3 MW) and SHP Sao Jose (4 MW)). Both plants are not operational as they were deactivated more than 40 years ago. The proposed project activity will dispatch electricity to the south/southeast/midwest grid and thus displace part of the electricity from fossil fuel-fired plants.	þ	þ
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1,2, 3-9	The following documents demonstrating that the project description is in compliance with the actual situation have been presented during the on-site visit: -ANEEL resolutions N° 730 (Sao Jose) and N° 733 (Sao Joaquim) -Environmental installation licenses for São Jose and São Joaquim -Basic technical studies, MEK Engenharia (completed in Novem-	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		ber, 2006) -Some proofs about the deactivation of the hydroplants 40 years ago (Technical Report SHP Sao Joaquim and power point presentation including fotos) -Purchase contracts of generators (for both SHPs) and turbines (SHP Sao Jose). The purchase contract for turbines (SHP Sao Joaquim) has not been signed yet. In this case it was presented a purchase proposal.		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1,2, 3-9	Yes. The information provided by these proofs is consistent with the information provided by the PDD.	þ	þ
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1,2	Yes. All information presented is consistent with details provided by further chapters of the PDD.	þ	þ
A.2.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	1,2,5	Yes. The description of the technology to be applied in A.4.2. of the PDD provides sufficient and transparent input to evaluate its impact on the greenhouse gas balance. **Corrective Action Request No.1.** 1. Manufacturer of turbines and generators should be indicated. 2. Technical characteristics of turbines and generators should be updated according to the purchase contracts, including the quantities. Power densities of the hydroplants should be indicated. 3. Purchase contract for turbines (SHP Sao Joaquim) should be submitted to the validation team.	**CAR 1**	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A.2.6. Is the brief explanation how the project will reduce greenhouse gas emission transparent and suitable?	1,2	Yes. The brief explanation how the project will reduce greenhouse gas emission is transparent and suitable.	þ	þ
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?	1,2	**Corrective Action Request No.2.** 1. Please include below the Table in A.3.: (*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required. 2. Further contact information of project participants is provided in Annex 1.	**CAR 2**	þ
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1,2	The participation of the listed entities is confirmed by each of them. **Corrective Action Request No.3.** A declaration of the project participants evidencing the voluntary project participation should be submitted to the validation team.	**CAR 3**	þ
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1,2	Yes. All information regarding project participants is consistent.	þ	þ
A.4. Technical description of the small-scale project activity				
A.4.1. *Location of the small-scale project activity*				
A.4.1.1. Does the information provided on	1,2,3	**Corrective Action Request No.4.**	**CAR 4**	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
the location of the project activity allow for a clear identification of the site(s)?		1. Please include the seconds of the GPS coordinates. 2. Please include information in the PDD from which location the GPS coordinates were taken. 3. The map (Figure 1) should be more illustrative.		
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1,2, 10	Registries of land purchase have been presented to the validation team demonstrating that the project proponents can implement the project at the two hydropower plant sites.	þ	þ
A.4.2. *Type and category(ies) and technology/measure of the small-scale project activity*				
A.4.2.1. To which type(s) does the project activity belong to? Is the type correctly identified and indicated?	1,2	The project belongs to Type 1: Renewable energy projects The type is correctly identified and indicated.	þ	þ
A.4.2.2. To which category (ies) does the project activity belong to? Is the category correctly identified and indicated?	1,2	Category I.D. : Grid connected renewable electricity generation The category is correctly identified and indicated.	þ	þ
A.4.2.3. Does the technical design of the project activity reflect current good practices?	1,2,5 ,8,9	Yes. The technical design of the project reflects current good practice. The equipment and technology used in this project have been successfully applied to similar projects in Brazil and around the world.	þ	þ
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country (ies)?	1,2,5 ,8,9	All project equipment will be exclusively supplied by national manufacturers.	þ	þ
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	1,2,5 ,8,9	Yes. The technolgy implemented by the project activity is environmentally safe. It has been successfully applied in similar pro-	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		jects in Brazil and around the world.		
A.4.2.6. Is the information provided in compliance with actual situation or planning?	1,2,5,8,9,17	**Corrective Action Request No.5.** Information about capacity factors and estimated electricity generation should be revised in A.4.2., B.6.3. and B.7.1. Capacity factors should be based on the more conservative assured electricity as discussed on-site. Please provide consistent information regarding the estimated electricity for the emission reductions calculation.	**CAR 5**	**þ**
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2,5,8,9	The project uses state of the art technology, already used in several other projects in the host country.	**þ**	**þ**
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2,5,8,9	It is not expected that the project technology will be substituted by other or more efficient technologies within the project period.	**þ**	**þ**
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1,2,5,8,9	Technical know-how will be transferred to local operation and maintenance teams by formal training programs and manuals.	**þ**	**þ**
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	1,2,5,8,9	Demand and requirements for training and maintenance are similar to other already operating hydro plants of AES Tiete in Sao Paulo.	**þ**	**þ**
A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	1,2	**Corrective Action Request No.6.** 1. A schedule for the implemtentation of the project activity has to be submitted to the validation team. 2. The time schedule for the implemenation of the project activity	**CAR 6**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		should be included into the PDD (including the information of CDM consideration).		
A.4.3. *Estimated amount of emission reductions over the chosen crediting period*				
A.4.3.1. Is the form required for the indication of projected emission reductions correctly applied?	1,2	Yes. The form required for the indication of projected emission reductions is correctly applied.	**þ**	**þ**
A.4.3.2. Are the figures provided consistent with other data presented in the PDD?	1,2	Yes. The figures provided are consistent with other data presented in the PDD. However, the emission reductions table should be revised due to the modification of the start of the crediting period. See B.6.4.5.	**See CAR 13**	**þ**
A.4.3.3. Are the figures consistent with the small-scale criteria for the used Type?	------	Not applicable.	**þ**	**þ**
A.4.4. *Public funding of the small-scale project activity*				
A.4.4.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1,2	Yes. The information provided on public funding is in compliance with the actual situation or planning as available by the project participants. No public funding is involved. **Clarification Request No. 1.** Please provide information how the project activity will be financed (relation of own equity to debt capital).	**CR 1**	**þ**
A.4.4.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1,2	Yes. All information provided is consistent with the details given in remaining chapters of the PDD.	**þ**	**þ**
A.4.5. *Confirmation that the small-scale project activity is not a debundled component of a large scale project activity*				

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A.4.5.1. Is there a registered small-scale CDM project activity or an application to register another small-scale CDM project activity: with the following characteristics:	1,2	<table><tr><th>Debundling checklist</th><th>Yes / No</th></tr><tr><td>the same project participants?</td><td>No</td></tr><tr><td>In the same project category and technology/measure?</td><td>No</td></tr><tr><td>Registered within previous two years? Or in registration process?</td><td>No</td></tr><tr><td>Whose boundary is within 1 km of the project boundary of the small scale project activity under consideration?</td><td>No</td></tr></table>	þ	þ
A.4.5.2. If the answer to all the above question is '**Yes**' then does the total size of the small scale project activity combined with previously registered small scale CDM project activity exceeds the limits of small scale CDM project activities?	-----	Not applicable.	þ	þ
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity				
B.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1,2, 23	It is clearly indicated: AMS I-D, version 13: Grid connected renewable electricity generation.	þ	þ
B.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	1,2, 23	At the time of GSP uploading, version 13 has been the most recent version.	þ	þ
B.2. Justification of the choice of the project category				
B.2.1. Is the applied methodology considered the	1,2,	Yes. The applied methodology is considered to be the most ap-	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
most appropriate one?	23	propriate one.		
B.2.1.1. Criterion 1: This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and renewable biomass, that supply electricity to and/or displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit.	1,2, 23	Applicability checklist / Yes / No / NA Criterion discussed in the PDD? Yes Compliance provable? Yes Compliance verified? Yes	þ	þ
B.2.1.2. Criterion 2: If the unit added has both renewable and non-renewable components (e.g.. a wind/diesel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15MW.	1,2, 23	Applicability checklist / Yes / No / NA Criterion discussed in the PDD? NA Compliance provable? NA Compliance verified? NA	þ	þ
B.2.1.3. Criterion 3: Combined heat and power (co-generation) systems that supply electricity to and/or displace electricity from a grid are **not** included in this category.	1,2, 23	**Corrective Action Request No.7.** B.2. of the PDD should inform that the project activity does not consist of a combined heat and power (co-generation) system. Applicability checklist / Yes / No / NA Criterion discussed in the PDD? No Compliance provable? Yes Compliance verified? Yes	CAR 7	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.2.1.4. Criterion 4: In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	1,2, 23	Applicability checklist / Yes / No / NA Criterion discussed in the PDD? NA Compliance provable? NA Compliance verified? NA	þ	þ
B.2.1.5. Criterion 5: Project activities that seek to retrofit or modify an existing facility for renewable energy generation are included in this category. To qualify as a small scale project, the total output of the modified or retrofitted unit shall not exceed the limit of 15 MW.	1,2, 23	Applicability checklist / Yes / No / NA Criterion discussed in the PDD? NA Compliance provable? NA Compliance verified? NA	þ	þ
B.2.1.6. If the project is under a programme of activities, have all the applicability criteria and additional requirements been considered according to the methodology?	-----	Not applicable.	þ	þ
B.3. Description of the project boundary				
B.3.1. Does the project boundary include physical, geographical site where the project ac-	1,2,	The project boundary includes the physical, geographical site (including the reservoir area) where the project activity takes place	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	tivity takes place?	23	and the South-Southeast-Midwest electricity system including net imports from countries such as Argentina and Uruguay.		
B.3.2.	Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1,2, 23	Yes. The spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD.	þ	þ
B.4. Description of baseline and its development					
B.4.1.	Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1,2	Feasible baseline scenario alternatives are not discussed in the PDD yet. **Corrective Action Request No.8.** 1. B.4. of the PDD should discuss all feasible baseline scenario alternatives. 2. It should be explained why dispatch data analysis and average OM is not applied. 3. EF calculations were not only prepared by MGM, but also by other project developers. Please add.	CAR 8	þ
B.4.2.	Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?	1,2	**Corrective Action Request No.9.** The PDD should exclude those options which are not in line with regulatory or legal requirements or mention that all alternatives are in line with regulatory or legal requirements.	CAR 9	þ
B.4.3.	Have applicable regulatory or legal requirements been identified?	1,2	There have been no regulatory or legal requirements identified in the host country.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.4.4.	Does the PDD identify the most likely baseline scenario in absence of the project activity?	1,2	The most likely baseline scenario is reflected by the continuation of the current situation, i.e. electricity would be generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the CM calculations.	þ	þ
B.4.5.	Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc?	1,2	Balanco Energetico Nacional 2007, Plano Nacional Energetico para 2030 and 10 year Electric Energy Expansion Plan (references all made in the PDD) describes the future energy matrix of the south-southeast-midwest grid to which the project activity belongs. It is predicted that more thermal power plants will provide electricity to the South/Southeast/Midwest grid in the future.	þ	þ
B.4.6.	Is the identified baseline scenario in line with regulatory or legal requirements?	1,2	Yes. The identified baseline scenario is in line with regulatory or legal requirements.	þ	þ
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:					
If the additionality tool has been used please answer B.5.1 to B.5.13					
B.5.1.	Has CDM been considered before the starting date of the project activity? What kind of evidences are available?	------	NA as the additionality tool is not being used.	þ	þ
B.5.2.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	------	NA	þ	þ
B.5.3.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than	------	NA	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	CDM income?				
B.5.4.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	------	NA	þ	þ
B.5.5.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	------	NA	þ	þ
B.5.6.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	------	NA	þ	þ
B.5.7.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	------	NA	þ	þ
B.5.8.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	------	NA	þ	þ
B.5.9.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	------	NA	þ	þ
B.5.10.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alterna-	------	NA	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	tives is not prevented by the identified barriers?				
B.5.11.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	------	NA	þ	þ
B.5.12.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)? How?	------	NA	þ	þ
B.5.13.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers?	------	NA	þ	þ
If the additionality tool has not been used please answer B.5.14 to B.5.19					
B.5.14.	If the starting date of the project activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the project activity?	1,2,9 ,12	During the on-site visit the project participants agreed to change the project´s starting date to 12/02/2008 (purchase contract of the generators). From that day on, the project is irreversible without big financial losses. It was presented an excerpt of the 169th director´s meeting memo and its authenticity has been obviously proved to the validation team. This meeting memo is clearly dated before the project´s starting date and seriously considers CDM in the decision to proceed with the project activity. **Corrective Action Request No.10.** 1. The project´s starting date should be changed to the date of the first purchase contract of the main equipment,	**CAR 10**	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		namely 12/02/2008 (purchase contract of the generators). 2. Project participants are requested to submit the translated (into English) and registered director´s meeting memo to the validation team.		
B.5.15. Is a complete list of barriers developed that prevents the project activity to occur?	1,2, 24	There are mentioned some barriers in the PDD, however the barrier analysis is not very well structured and some of the barriers are not sufficiently transparent. **Corrective Action Request No.11.** 1. Please describe the fundamental barriers for the project activity in more detail, more transparent and better structured in the PDD, distinguishing between the different barriers applicable to the proposed project activity. Please mention all relevant references in the PDD. 2. Please revise the argument of macro-economic instability in Brazil.	**CAR 11**	**þ**
B.5.16. Does this list include at least one of the following barriers?	1,2, 24	See B.5.15. Barrier / Discussed? / Verifiable? Investment / No / No Technological / No / No Due to prevailing practice / Yes / Yes Other / Yes / Yes	**See CAR 11**	**þ**
B.5.17. Does the discussion sufficiently take into	1,2	Yes. The discussion sufficiently takes into acccount relevant na-	**þ**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
account relevant national and/or sectoral policies?		tional and/or sectoral policies. However, see B.5.15.		
B.5.18. Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2, 24	See B.5.15.	**CAR 11**	**þ**
B.5.19. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	1,2	**Corrective Action Request No.12.** Please explain in more detail how the CDM approval of the project activity will help to overcome the identified barriers.	**CAR 12**	**þ**
B.6. Emissions reductions				
B.6.1. *Explanation of methodological choices*				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1,2, 23	The procedures provided in the methodology are applied by the proposed project activity.	**þ**	**þ**
B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1,2, 23	Yes. Every selection of options offered by the methodology is correctly justified and is in line with the situation verified on-site.	**þ**	**þ**
Determination of project emissions (Comment on any line answered “No”)				
B.6.1.3. Component 1: emissions from use of fossil fuel	1,2, 23	Project emission checklist / Yes / No Component discussed in the PDD? / NA Formulae correctly applied? / NA	**þ**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.6.1.4. Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	1,2, 23	The formula required for the determination of baseline emissions is correctly presented.	þ	þ
B.6.1.5. Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,2, 23	NA, as there are no leakage emissions.	þ	þ
B.6.1.6. Are the formulae required for the determination of emission reductions correctly presented?		The formula required for the determination of emission reductions is correctly presented in B.6.3. of the PDD.	þ	þ
B.6.2. *Data and parameters that are available at validation*				
B.6.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1,2, 23	The list of parameters presented in chapter B.6.2. is considered to be complete.	þ	þ
Comment on any line answered with “No”. Add additional parameters used for the calculation of the grid factors if necessary.				
B.6.2.2. Parameter Title: Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modification activities)	------	NA Data Checklist / Yes / No Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter? Source clearly referenced?	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Correct value provided? | Has this value been verified? | Choice of data correctly justified? | Measurement method correctly described? |		
B.6.2.3. Parameter Title: Emission factor of the grid (CM) Note: CM should be calculated as per the procedures described in the "Tool to calculate the emission factor for an electricity system"	1,2, 13, 23, 28	Data Checklist | Yes / No Title in line with methodology? | Yes Data unit correctly expressed? | Yes Appropriate description of parameter? | Yes Source clearly referenced? | Yes Correct value provided? | Yes Has this value been verified? | Yes Choice of data correctly justified? | Yes Measurement method correctly described? | Yes	þ	þ
B.6.2.4. Parameter Title: Operating margin (OM) emission factor of the grid Note: OM should be calculated as per the	1,2, 13, 23,	Data Checklist | Yes / No Title in line with methodology? | Yes	þ	þ

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td>Note: OM should be calculated as per the procedures described in the “Tool to calculate the emission factor for an electricity system”</td><td>28</td><td><table>
<tr><td>Title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Appropriate description?</td><td>Yes</td></tr>
<tr><td>Source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>Yes</td></tr>
<tr><td>Choice of data correctly justified?</td><td>Yes</td></tr>
<tr><td>Measurement method correctly described?</td><td>Yes</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>B.6.2.5. Parameter Title:
Build margin (BM) emission factor of the grid
Note: BM should be calculated as per the procedures described in the “Tool to calculate the emission factor for an electricity system”</td><td>1,2, 13, 23, 28</td><td><table>
<tr><th>Data Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Appropriate description of parameter?</td><td>Yes</td></tr>
<tr><td>Source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>Yes</td></tr>
<tr><td>Choice of data correctly justified?</td><td>Yes</td></tr>
<tr><td>Measurement method correctly described?</td><td>Yes</td></tr>
</table></td><td>þ</td><td>þ</td></tr>
</table>

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>B.6.2.6. Parameter Title:
fuel consumption of each power source</td><td>1,2,
13,
23,
28</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.7. Parameter Title:
emission coefficient of each fuel</td><td>1,2,
13,
23,
28</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Source clearly referenced? — Yes Correct value provided? — Yes Has this value been verified? — Yes Choice of data correctly justified? — Yes Measurement method correctly described? — Yes		
B.6.2.8. Parameter Title: electricity generation of each power source	1,2, 13, 23, 28	Data Checklist — Yes / No Title in line with methodology? — Yes Data unit correctly expressed? — Yes Appropriate description of parameter? — Yes Source clearly referenced? — Yes Correct value provided? — Yes Has this value been verified? — Yes Choice of data correctly justified? — Yes Measurement method correctly described? — Yes	þ	þ
B.6.2.9. Parameter Title: surface area of full reservoir level	1,2,		þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
(for new hydroelectric activities only)	13, 23, 28	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.2.10. Parameter Title: fraction of time with low costs /must run plant at the margin (for simple adjusted OM only)	1,2, 13, 23, 28	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	þ	þ

Table 1 is applicable to AMS I.D. 13

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Measurement method correctly described? — Yes		
B.6.2.11. Parameter Title: electricity imports	1,2, 13, 23, 28	Data Checklist — Yes / No Title in line with methodology? — Yes Data unit correctly expressed? — Yes Appropriate description of parameter? — Yes Source clearly referenced? — Yes Correct value provided? — Yes Has this value been verified? — Yes Choice of data correctly justified? — Yes Measurement method correctly described? — Yes	þ	þ
B.6.2.12. Parameter Title: CO_2 emission coefficient of fuels used in connected grids	1,2, 13, 23, 28	Data Checklist — Yes / No Title in line with methodology? — Yes Data unit correctly expressed? — Yes Appropriate description of parameter? — Yes Source clearly referenced? — Yes	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.3. *Ex-ante calculation of emission reductions*				
B.6.3.1. Is the projection based on the same procedures as used for future monitoring? What kind of procedure is used?	1,2, 13, 23, 28	Yes. The projection is based on the same procedures as used for future monitoring. The EF is determined using the "Tool to calculate the emission factor for an electricity system", version 01, consisting of the combination of the operating margin and the build margin factors.	þ	þ
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1,2, 13, 23, 28	Yes. The GHG calculations are documented in a complete and transparent manner.	þ	þ
B.6.3.3. If there is more than one component of the project activity, then, are emission reduction calculations provided separately for each component?	------	NA	þ	þ
B.6.3.4. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1,2, 13,	The amount of electricity generation (in MWh) is inconsistent within chapter B.6.3. and with chapter A.4.2.	**CAR 5**	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
ters of the PDD?	23, 28	See A.4.2.6.		
B.6.4. *Summary of the ex-ante estimation of emission reductions*				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1,2	Yes. The project will definitely result in fewer GHG emissions than in the baseline scenario.	þ	þ
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1,2	Yes. The table required for the indication of projected emission reductions is correctly applied.	þ	þ
B.6.4.3. If the project activity involves more than one component, is separate table included for each of the component.	------	NA	þ	þ
B.6.4.4. Do these values comply with small-scale criteria for every year?	------	NA	þ	þ
B.6.4.5. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1,2, 16	The start of the crediting period is indicated in the PDD for April 01, 2009. During the on-site visit it became obvious that the start of the crediting period will be some months later. **Corrective Action Request No.13.** Please revise the start of the crediting period as discussed on-site and consequently the emission reductions tables. See also A.4.2.11.	**CAR 13** **See CAR 6**	þ
B.6.4.6. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1,2	Yes. The data provided in this section is in consistency with data as presented in other chapters of the PDD.	þ	þ
B.7. Application of the monitoring methodology and description of the monitoring plan				
B.7.1. *Data and parameters monitored*				

Table 1 is applicable to AMS I.D. 13

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.7.1.1. Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1,2, 23	The list of parameters presented in chapter B.7.1. is not considered to be complete. According to EB 23, power density has to be calculated and surface area at full reservoir level has to be monitored once at project start. **Corrective Action Request No.14.** Please add the parameter "Surface area at full reservoir level" in B.7.1. of the PDD.	**CAR 14**	**þ**
Comment on any line answered with "No"				
B.7.1.1.1. Parameter Title: Electricity generated by the renewable technology	1,2, 23	**Corrective Action Request No.15.** Regarding the parameter: "Electricity generated by the renewable technology": Please indicate the reference to standards, accuracy of the meter and calibration standards. Please revise the value as well as the description.	**CAR 15**	**þ**

Monitoring Checklist	Yes / No
Title in line with methodology?	Yes
Data unit correctly expressed?	Yes
Appropriate description of parameter?	No
Source clearly referenced?	Yes
Correct value provided for estimation?	No
Has this value been verified?	Yes
Measurement method correctly described?	Yes
Correct reference to standards?	No
Indication of accuracy provided?	No
QA/QC procedures described?	No
QA/QC procedures appropriate?	No

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.7.1.1.2. Amount of biomass input (if applicable)	------	NA Monitoring Checklist / Yes / No Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter? Source clearly referenced? Correct value provided for estimation? Has this value been verified? Measurement method correctly described? Correct reference to standards? Indication of accuracy provided? QA/QC procedures described? QA/QC procedures appropriate?	þ	þ
B.7.1.1.3. Amount of fossil fuel (if applicable)	------	NA Monitoring Checklist / Yes / No Title in line with methodology? Data unit correctly expressed? Appropriate description of parameter? Source clearly referenced? Correct value provided for estimation? Has this value been verified? Measurement method correctly described? Correct reference to standards? Indication of accuracy provided? QA/QC procedures described?	þ	þ

Table 1 is applicable to AMS I.D. 13

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		QA/QC procedures appropriate?		
B.7.1.1.4. Parameter Title: Surface area at full resevoir level	1,2, 23	See B.7.1.1. Monitoring Checklist / Yes / No Title in line with methodology? No Data unit correctly expressed? No Appropriate description of parameter? No Source clearly referenced? No Correct value provided for estimation? No Has this value been verified? No Measurement method correctly described? No Correct reference to standards? No Indication of accuracy provided? No QA/QC procedures described? No QA/QC procedures appropriate? No	**See CAR 14**	**þ**
B.7.2. *Description of the monitoring plan*				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1,2, 21	**Corrective Action Request No.16.** Please describe the operational and management structure in the PDD, if possible in a diagram.	**CAR 16**	**þ**
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,2, 21	AES Tiete S.A. will be responsible for data collection, management and archiving.	**þ**	**þ**
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1,2, 19, 20,	**Corrective Action Request No.17.** 1. Please provide more information regarding data collection, measurement and quality assurance procedures (amongst others calibration).	**CAR 17**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
	21	2. It should be clearly described how the bi-directional measurement of the power meter works.		
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1,2, 19, 20, 21	Annex 4 provides some more useful information enabling a better understanding of the envisioned monitoring provisions	þ	þ
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
B.8.1.1. Is there any indication of a date when the baseline was determined?	1,2	Yes. The baseline was completed on 04/03/2008.	þ	þ
B.8.1.2. Has dd/mm/yyyy format been used to indicate the date.	1,2	Yes. The right format has been applied.	þ	þ
B.8.1.3. Is this consistent with the time line of the PDD history?	1,2	Yes. It is consistent with the time line of the PDD history.	þ	þ
B.8.1.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1,2	Yes. Demóstenes Barbosa Silva (AES Tietê S.A.) has been responsible for the application of the baseline and monitoring methodology.	þ	þ
B.8.1.5. Is information provided whether this person / entity is also considered a project participant?	1,2	Yes. AES Tietê S.A is project participant.	þ	þ
C. Duration of the project activity / crediting period				
C.1. Duration of the project activity				
C.1.1. Are the project's starting date and operational	1,2	The operational lifetime is defined for 30 years. This is reasonable	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
lifetime clearly defined and reasonable? Is it the earliest date of construction, implementation or real action?		and standard for hydropower technology.		
C.2. Choice of the crediting period and related information				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1,2	Project participants have chosen the renewable crediting period of max. 7 years with potential for 2 renewals. See B.6.4.5.	**CAR 13**	**þ**
C.2.2. Has dd/mm/yyyy format been used to indicate the start date of the crediting period.	1,2	Yes. The correct format is used.	**þ**	**þ**
D. Environmental impacts				
D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved? If yes answer also D.1.2 to D.1.4	1.2,4 ,11, 25	An EIA was not necessary for the proposed project activity. This was verified on-site. However, a preliminary environmental report (RAP) (amongst others including the environmental impacts of the proposed project activity) has been conducted and was presented to the validation team.	**þ**	**þ**
D.1.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1.2,4 ,11, 25	**Corrective Action Request No.18.** 1. Please describe the environmental impacts of the project activity, even if small, in the PDD. 2. Please describe the couse of actions which were taken related to the preliminary environmental report (RAP).	**CAR 18**	**þ**
D.1.3. Will the project create any adverse environmental effects?	1.2,4 ,11, 25	The project will not create any significant adverse environmental effects. See CAR 18	**CAR 18**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
D.1.4. Were transboundary environmental impacts identified in the analysis?	1.2,4,11, 25	There are no transboundary environmental impacts involved with the project activity. This is mentioned in the PDD.	þ	þ
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1.2,4,11, 25	The environmental impact is considered small as compared to other types of power generation alternatives. See D.1.2.	**See CAR 18**	þ
D.2.2. Does the project comply with environmental legislation in the host country?	1.2,4,11, 25	The project complies with the environmental legislation in the host country. The environmental installation licenses have been presented to the validation team.	þ	þ
E. Stakeholders' comments				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.1.1. Have relevant stakeholders been consulted?	1,2, 14	Yes. Relevant stakeholders have been consulted via Emails and letters sent by postal. The letters and Emails have been presented to the validation team. However, 1. the receipt confirmation of those letters were not available during the on-site audit. 2. The invitation of two stakeholders mentioned in the PDD were not confirmed by letters on-site. 3. Two stakeholders invited are not mentioned in the PDD.	**CAR 19**	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Corrective Action Request No.19. 1. Please submit the receipt confirmations of the invitation letters to the validation team. 2. Please submit the invitation letters for the following stake-holders mentioned in the PDD: Associacao de Usuarios das Aguas and Secretaria Municipal de meio ambiente de Sao Joao da Boa Vista. 3. Please mention the following stakeholders which were in-vited for comments but are not mentioned in the PDD: Promotoria de Justica and Departamento de Engenharia e Meio Ambiente. 4. Please provide the English translation for the stakeholders invited.		
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,2, 14	Invitations have been sent by postal and Emails. These media are considered to be appropriate.	þ	þ
E.1.3. If a stakeholder consultation process is re-quired by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1,2	The Brazilian DNA gives guidance how the local stakeholder process has to be conducted. The validation team confirms that the process has been performed as required.	þ	þ
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1,2	Yes. The undertaken stakeholder process is described in a com-plete and transparent manner.	þ	þ
E.2. Summary of the comments received				
E.2.1. Is a summary of the received stakeholder	1,2,	**Corrective Action Request No.20.**	CAR	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
comments provided?	18	Please update E.2. of the PDD, as one comment has been already received.	**20**	
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stakeholder comments received?	1,2, 18	See E.2.1.	**See CAR 20**	**þ**
F. Annexes 1 - 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	1,2	Yes. The information provided in Annex 1 is consistent with the one given under section A.3.	**þ**	**þ**
F.1.2. Is the information on all private participants and directly involved Parties presented?	1,2	Yes. All information on all project participants is presented.	**þ**	**þ**
F.2. Annex 2: Information regarding public funding				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1,2	Yes. All information is consistent.	**þ**	**þ**
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1,2	Not applicable, as no funding involved.	**þ**	**þ**
F.3. Annex 3: Baseline information				
F.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections	1,2, 13	Additional background information on baseline data is consistent with data presented by other sections of the PDD.	**þ**	**þ**

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
of the PDD?				
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1,2, 13, 16	Yes. The Excel calculation sheet for the calculation of the emissions factor has been submitted during the on-site visit. See B.6.4.5.	**See CAR 13**	**þ**
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?	1,2, 13	Yes.	**þ**	**þ**
F.4. Annex 4: Monitoring information				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1,2, 19, 20, 21	Yes. The information provided in Annex 4 is consistent with the information provided in B.7.2. of the PDD.	**þ**	**þ**
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1,2, 19, 20, 21	See B.7.2.1. and B.7.2.3.	**See CAR 16** **See CAR 17**	**þ**
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1,2, 19, 20, 21	The information provided in Annex 4 substantiates the information given in other sections of the PDD.	**þ**	**þ**

Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
Corrective Action Request No.1. 1. Manufacturer of turbines and generators should be indicated. 2. Technical characteristics of turbines and generators should be updated according to the purchase contracts, including the quantities. Power densities of the hydroplants should be indicated. 3. Purchase contract for turbines (SHP Sao Joaquim) should be submitted to the validation team.	A.2.5.	• The manufacturer of turbines and generators was indicated in section A.4.2. • The technical characteristics of turbines and generators were updated in section A.4.2. Power densities were indicated. • The purchase contract for turbines (SHP São Joaquim) was submitted to the validation team.	**Answer 26.04.2008:** 1. Manufacturer of turbines and generators are indicated in the last submitted PDD. 2. Technical characteristics of turbines and generators were updated in the last submitted PDD. Power densities were indicated in the last submitted PDD. 3. The purchase contract for the turbine (SHP São Joaquim) was submitted. **CAR 1 is considered to be resolved. þ**
Corrective Action Request No.2. 1. Please include below the Table in A.3.: (*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.	A.3.1.	• The text was included in Table A.3.	**Answer 26.04.2008:** Required information has been included in the last submitted PDD. **CAR 2 is considered to be resolved. þ**

2. Further contact information of project participants is provided in Annex 1.			
Corrective Action Request No.3. A declaration of the project participants evidencing the voluntary project participation should be submitted to the validation team.	A.3.2.	• A declaration of the project participants evidencing the voluntary participation was submitted to the validation team.	**Answer 26.04.2008:** A signed declaration has been submitted by the project participants to the validation team confirming the voluntary participation in the given CDM project activity. **CAR 3 is considered to be resolved. þ**
Corrective Action Request No.4. 1. Please include the seconds of the GPS coordinates. 2. Please include information in the PDD from which location the GPS coordinates were taken. 3. The map (Figure 1) should be more illustrative.	A.4.1.1.	• The seconds of the GPS coordinates was included in section A.4.1.4. • It was indicated in section A.4.1.4 that the GPS coordinates were taken from each power house. • The map was enlarged in section A.4.1.4.	**Answer 26.04.2008:** 1. Seconds were included. 2. GPS coordinates are from the power house. 3. Map is more illustrative in the last submitted PDD. **CAR 4 is considered to be resolved. þ**
Corrective Action Request No.5. Information about capacity factors and estimated electricity generation should be revised in A.4.2., B.6.3. and B.7.1. Capacity factors should be based on the more conservative assured electricity as discussed on-site. Please provide consistent information regarding the estimated electricity for the	A.4.2.6.	• The estimated electricity for the emission reductions calculation was revised, based on more conservative capacity factors and assured energy. Consistent information was provided in sections A.4.2, B.6.3, B.7.1.	**Answer 26.04.2008:** Information about capacity factors and estimated electricity generation was revised in A.4.2., B.6.3. and B.7.1. Capacity factors are based on the more conservative assured electricity in the last

emission reductions calculation.			submitted PDD. **CAR 5 is considered to be resolved. þ**
Corrective Action Request No.6. 1. A schedule for the implemtentation of the project activity has to be submitted to the validation team. 2. The time schedule for the implemenation of the project activity should be included into the PDD (including the information of CDM consideration).	A.4.2.11.	• A schedule for the implemtentation of the project activity was submitted to the validation team. • The time schedule for the implementation of the project activity was included into section A.4.2 of the PDD (including the information of CDM consideration).	**Answer 26.04.2008:** Schedule for project implementation was submitted to the validation team and included in the last submitted PDD. CDM consideration is included into the project´s schedule. **CAR 6 is considered to be resolved. þ**
Corrective Action Request No.7. B.2. of the PDD should inform that the project activity does not consist of a combined heat and power (co-generation) system.	B.2.1.3.	• Information that the project activity does not consist of a combined heat and power (co-generation) system was included in section B.2. of the PDD.	**Answer 26.04.2008:** Requested information was included in B.2. of the last submitted PDD. **CAR 7 is considered to be resolved. þ**
Corrective Action Request No.8. 1. B.4. of the PDD should discuss all feasible baseline scenario alternatives. 2. It should be explained why dispatch data analysis and average OM is not applied. 3. EF calculations were not only prepared by MGM, but also by other project developers. Please add.	B.4.1.	• A discussion on baseline scenario alternatives was included in section B.4 of the PDD. • An explanation on why dispatch data analysis and average OM was not applied was included. • Other project developers were added.	**Answer 26.04.2008:** 1. Baseline scenario alternatives are discussed in the last submitted PDD. 2. It is explained in the last submitted PDD why dispatch data analysis and average OM is not applied. 3. All project developers pre-

			paring the EF calculation were added in the last submitted PDD. **CAR 8 is considered to be resolved. þ**
Corrective Action Request No.9. The PDD should exclude those options which are not in line with regulatory or legal requirements or mention that all alternatives are in line with regulatory or legal requirements.	B.4.2.	• It was mentioned that all alternatives are in line with regulatory or legal requirements in section B.4.	**Answer 26.04.2008:** The last submitted PDD mentions that all options are in line with regulatory or legal requirements. **CAR 9 is considered to be resolved. þ**
Corrective Action Request No.10. 1. The project´s starting date should be changed to the date of the first purchase contract of the main equipment, namely 12/02/2008 (purchase contract of the generators). 2. Project participants are requested to submit the translated (into English) and registered director´s meeting memo to the validation team.	B.5.14.	• The project's starting date was changed to 12/02/2008 (purchase contract of the generators). • A translated version and registered director's meeting memo will be submitted to the validation team.	**Answer 26.04.2008:** 1. The project´s starting date was changed in the last submitted PDD to 12/02/2008, the first purchase contract of the generators. **Answer 12.05.2008:** 2. The director´s meeting memo has been submitted in English language to the validation team. **CAR 10 is considered to be resolved. þ**
Corrective Action Request No.11. 1. Please describe the fundamental barriers for the project activity in more detail, more transparent and better structured in the PDD, distinguishing be-	B.5.15.	• The barrier discussion included in section B.5 was modified and better structured. • The argument of macroeconomic instability was revised.	**Answer 26.04.2008:** 2. The argument of macroeconomic instability was taken out of the last submit-

tured in the PDD, distinguishing between the different barriers applicable to the proposed project activity. Please mention all relevant references in the PDD. 2. Please revise the argument of macro-economic instability in Brazil.			ted PDD. **Answer 12.05.2008:** 1. The barrier analysis was modified and is better structured in the last submitted PDD. Evidences for barriers have been submitted in English language to the validation team. **CAR 11 is considered to be resolved. þ**
Corrective Action Request No.12. Please explain in more detail how the CDM approval of the project activity will help to overcome the identified barriers.	B.5.19.	• A more detailed explanation was included in section B.5.	**Answer 26.04.2008:** A more detailed explanation has been delivered in the last submitted PDD. **CAR 12 is considered to be resolved. þ**
Corrective Action Request No.13. Please revise the start of the crediting period as discussed on-site and consequently the emission reductions tables.	B.6.4.5.	• The start of the crediting period was revised to October 1st, 2009, and consequently the emission reduction tables on sections A.4.3 and B.6.4.	**Answer 26.04.2008:** The start of the crediting period was revised to 01/10/2009; emission reduction tables have been corrected. **CAR 13 is considered to be resolved. þ**
Corrective Action Request No.14. Please add the parameter "Surface area at full reservoir level" in B.7.1. of the PDD.	B.7.1.1.	• The parameter "Surface area at full reservoir level" was added to section B.7.1.	**Answer 26.04.2008:** Parameter "Surface area at full reservoir level" was added in section B.7.1. of the

			last submitted PDD. **CAR 14 is considered to be resolved. þ**
Corrective Action Request No.15. Regarding the parameter: "Electricity generated by the renewable technology": Please indicate the reference to standards, accuracy of the meter and calibration standards. Please revise the value as well as the description.	B.7.1.1.1.	• The value and description for the parameter "Electricity generated by the renewable technology" was revised in section B.7.1.	**Answer 26.04.2008:** Regarding the parameter "electricity generated by the renewable technology": value and description were revised; reference to standards, accuracy of the meter and calibration standards were indicated in the last submitted PDD. **CAR 15 is considered to be resolved. þ**
Corrective Action Request No.16. Please describe the operational and management structure in the PDD, if possible in a diagram.	B.7.2.1.	• A description of the operational and management structure was included in section B.7.2.	**Answer 26.04.2008:** The operational and management structure was included in B.7.2. of the last submitted PDD. **CAR 16 is considered to be resolved. þ**
Corrective Action Request No.17. 1. Please provide more information regarding data collection, measurement and quality assurance procedures (amongst others calibration). 2. It should be clearly described how the bi-directional measurement of the power meter works.	B.7.2.3.	• Information regarding data collection, measurement and quality assurance procedures (amongst others calibration) was added to section B.7.2. • A description of how the bi-directional measurement of the power meter works was included to section B.7.2.	**Answer 26.04.2008:** 1. More information regarding data collection, measurement and quality assurance procedures has been provided in the last submitted PDD. 2. A short description of bi-directional measurement of

			the power meter was included in B.7.2. of the last submitted PDD. **CAR 17 is considered to be resolved. þ**
Corrective Action Request No.18. 1. Please describe the environmental impacts of the project activity, even if small, in the PDD. 2. Please describe the couse of actions which were taken related to the preliminary environmental report (RAP).	D.1.2.	• A discussion about the environmental impacts of the project activity was included in section D.1. • The course of actions related to the preliminary environmental report was included in section D.1.	**Answer 26.04.2008:** 1. A discussion about the environmental impacts was inlcuded in the last submitted PDD. 2. The course of actions taken related to the RAP was included in the last submitted PDD. **CAR 18 is considered to be resolved. þ**
Corrective Action Request No.19. 1. Please submit the receipt confirmations of the invitation letters to the validation team. 2. Please submit the invitation letters for the following stakeholders mentioned in the PDD: Associacao de Usuarios das Aguas and Secretaria Municipal de meio ambiente de Sao Joao da Boa Vista. 3. Please mention the following stakeholders which were invited for comments but are not mentioned in the PDD: Promotoria de Justica and De-	E.1.1.	• The receipt confirmations of the invitation letters were submitted to the validation team. • It was verified that there is no Associação de Usuarios das Águas and this stakeholder was taken out of section E.1. The Secretaria Municipal de meio ambiente de Sao Joao da Boa Vista is represented by the Departamento de Engenharia e Meio Ambiente. • The stakeholder Promotoria de Justica was added to the PDD. • The English translation for the stakeholders invited was provided.	**Answer 26.04.2008:** 1. Receipt confirmations were submitted to the validation team. 2. Answer is accepted by the validation team. 3. Stakeholder “Promotoria de Justica” was added in the last submitted PDD. 4. Answer is accepted by the validation team. **CAR 19 is considered to be resolved. þ**

partamento de Engenharia e Meio Ambiente. 4. Please provide the English translation for the stakeholders invited.			
Corrective Action Request No.20. Please update E.2. of the PDD, as one comment has been already received.	E.2.1.	• Section E.2 of the PDD was updated.	**Answer 26.04.2008:** Section E.2. of the PDD was updated. **CAR 20 is considered to be resolved. þ**
Clarification Request No.1. Please provide information how the project activity will be financed (relation of own equity to debt capital).	A.4.4.1.	• The project will be financed on an 100% equity basis.	**Answer 26.04.2008:** Project will be financed 100 % by own equity capital. No public funding is involved. **CR 1 is considered to be resolved. þ**

Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-

Annex 2: Information Reference List

Reference No.	Document or Type of Information
1	On-site interview at “AES Tietê S.A.”, Sao Paulo by auditing team of TÜV SÜD **Validation team on-site:** Johann Thaler TÜV SÜD do Brasil **Interviewed persons:** Date: 04/04/2008 Representatives of AES Tietê S.A. Clauber Leite, Environmental Engineer Samy Hotimsky, Project Developer Roberto Sattamini , Project Director Marianna Silva, Environmental analyst Demóstenes Barbosa da Silva, Environmental Director Other participants: Roberto Kishinami, Environmental Consultant, NRG Ltda.
2	Project Design Document “Jaguari Mirim River Hydroelectric Plants “, version 01, 26/03/2008, submitted on March 28, 2008.
3	ANEEL Resolution N° 730, dated 18.12.2002 (Authorization Contract SHP Sao Jose), ANEEL Resolution N° 733, dated 18.12.2002 (Authorization Contract SHP Sao Joaquim), including GPS coordinates, pdf-files, submitted on April, 04, 2008.

Reference No.	Document or Type of Information
4	Installation license (Sao Joaquim) , N° 00353, Process N° 13.651/2001, dated 19/07/2005, valid for 5 years, issued by Secretaria do Meio Ambiente do Estado de São Paulo – SMA, Installation license (Sao Jose) , N° 00352, Process N° 13.648/2001, dated 19/07/2005, valid for 5 years, issued by Secretaria do Meio Ambiente do Estado de São Paulo – SMA, pdf-file, submitted on April, 04, 2008
5	Basic technical studies including technical summaries for SHP Sao Jose and SHP Sao Joaquim, MEK Engenharia, dated November 2006, word-file, submitted on April 04, 2008.
6	Registro fotografico_06/2007 – PCHs Sp.1, powerpoint presentation, submitted on April 04, 2008.
7	Technical Report, dated 10/2007, Visual inspection and assessment of the civil structures of the SHP Sao Joaquim, paper-copy, submitted on April 04, 2008.
8	Purchase contract between AES Tietê S.A and SEMI Industrial Ltda. for turbines of SHP Sao Jose, N° DC/PCH/004/2008, signed on 21/02/2008, pdf-file, submitted on April 04, 2008.
9	Evidence for the project´s starting date: Purchase contract between AES Tietê S.A. and FLESSAK Eletro Industrial Ltda. for generators of SHP Sao Jose and SHP Sao Joaquim, N° DC/PCH/008/2008, signed on 12/02/2008, pdf-file, submitted on April 04, 2008.
10	6 Registries of land purchase, dated 07/01/2008, pdf-files, submitted on April 04, 2008.
11	Preliminary environmental reports for SHP Sao Joaquim, dated 08/2003 SHP Sao Jose, dated 09/2003, pdf-files, submitted on April 04, 2008.
12	Evidence for CDM consideration: Excerpt of the 169th director´s meeting memo „Extrato de ata da 169a reuniao de diretoria PCH´s – Jaguari Mirim“, dated 13/11/2007, pdf-file, submitted on April 04, 2008 and translated in English language submitted on May 12, 2008.

Reference No.	Document or Type of Information
13	EF calculation sheet “BR-Grid EF SSECO-2004 to 2006-2007.07.30”, excel-file, submitted on April 04, 2008.
14	10 Invitation letters (dated 26/03/2008) and 10 Emails (dated April 03-04, 2008) to local stakeholders, pdf-files and html documents, submitted on April 04, 2008.
15	Investment costs “Jaguari Mirim_Propostas_jan08_Final.1”, excel file, submitted on April 04, 2008.
16	CER calculation sheet “Jmirim ER calculations 20071212”, excel file, submitted on April 04, 2008.
17	Calculation of capacity factors, “PCHs_SP_EASS”, excel file, submitted on April 04, 2008.
18	Stakeholder response, dated 02/04/2008, html file, submitted on April 04, 2008.
19	Procedures for measurement, AES Tietê, MED-001, revision 00, dated 01/05/2007, pdf-file, submitted on April 04, 2008.
20	ONS Submoduls 12.1-12.6, “measurement for invoicing”, dated 31/01/2007, pdf-files, submitted on April 04, 2008.
21	Organigram about the management and operational structure of the Jaguari Mirim Project, power point file, submitted on April 04, 2008.
22	Purchase proposal for turbines for SHP Sao Joaquim by Hacker Industrial Ltda., N° PPC264/07, dated 24/04/2007 , pdf-file, submitted on April 04, 2008.
23	AMS I-D, version 13, Grid connected renewable electricity generation, EB 36.
24	Attachment A to Appendix B of the simplified modalities and procedures for small-scale CDM project activities.
25	RESOLUÇÃO CONAMA N. 1, DE 23.01.86, pdf-file, submitted on March 04, 2008.
26	IPCC: Revised 2006 Guidelines for National Greenhouse Gas Inventories
27	IPCC: 2000, Good Practice Guidance
28	Tool to calculate the emission factor for an electricity system, version 1.

Reference No.	Document or Type of Information
29	Declaration signed by the project participants about the voluntary participation in the CDM project activity, dated 03/04/2008, jpg-file, submitted on April 23, 2008
30	Project implementation schedule for the 2 SHPs, dated March 2008, word-files, submitted on April 23, 2008.
31	Purchase contract between AES Tiete and Hacker Industrial Ltda. for one turbine for SHP São Joaquim, N° DC/PCH/005/2008, signed on 17/03/2008, pdf-file, submitted on April 23, 2008.
32	Receipt confirmations of the invitation letters, pdf-file „AR das Cartas de Jaguari Mirim_CAR19.pdf“, pdf-file, submitted on April 23, 2008.
33	Final Project Design Document “Jaguari Mirim River Hydroelectric Plants “, version 03, 21/07/2008, submitted on July 23, 2008.
34	Final CER calculation sheet “JMirim ER calculations 20080505”, excel file, submitted on May 07, 2008.
35	Evidences about barriers (in English language), 5 pdf-files, submitted on June 18, 2008.
36	Maps about reservoir areas for SHP Sao Joaquim and SHP Sao Jose, pdf-files, submitted on June 09, 2008.
37	Information letter issued by GANA Consultoria e Engenharia S/C Ltda about the reservoir of SHP São Joaquim, dated 12/06/2008, submitted on June 16, 2008.
38	Small Hydro Plants in the State of São Paulo (Pequenas Centrais Hidreletricas no Estado de São Paulo), Comissão de serviços publicos de energia (CSPE), Sao Paulo 2004, submitted on July 22, 2008.
39	ANEEL resolution, N° 336, dated 17/10/2005, pdf-file, submitted on July 24, 2008.
40	Website www.aneel.gov.br.