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Validation Report

Usina Santa Adélia S/A

Validation of the CDM-Project:
Usina Interlagos Cogeneration Project
Brazil

Report No. 918164

2007, August 27

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.
918164	2007-06-01	1	2007-08-27	-

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:** TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich Federal Republic of Germany
Client: Usina Santa Adélia S/A Rodovia SP 326 - Km 332, Fazenda Santa Adélia ZIP 14870-970 – Postbox 54 Jaboticabal São Paulo Brazil	**Project Site(s):** Usina Interlagos Ltda. Rodovia SP 310, km 643 ZIP 15370-000, Pereira Barreto City Sao Paulo Brazil

Project Title:	Usina Interlagos Cogeneration Project, Brazil

Applied Methodology / Version: ACM0002 – "Consolidated baseline methodology for grid connected electricity generation from renewable sources" (version 6, May 19th, 2006). ACM0006 - "Consolidated baseline methodology for grid-connected electricity generation from biomass residues" (version 04, 02 Nov 2006).	**Scope(s):** 1

First PDD Version:		**Final PDD version:**	
Date of issuance:	2006-11-23	Date of issuance:	2007-08-24
Version No.:	1	Version No.:	14
Starting Date of GSP	2006-12-06		

Estimated Annual Emission Reduction:	**55,697 tCO2**

Assessment Team Leader: Markus Knödlseder (TÜV-SÜD, Munich)	**Further Assessment Team Members:** Johann Thaler (TÜV-SÜD do Brazil) Sandro Marostica (TÜV-SÜD do Brazil)

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
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)
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
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:

Usina Interlagos Cogeneration Project, Brazil.

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 Methodlogy (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 (for further information see www.vvmanual.info), 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 protocols are enclosed in Annex 1 and Annex 2 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 subdivided. 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 (☑), 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	*Reference to the*	*The responses given*	*This section should sum-*

table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.*	*by the client or other project participants during the communications with the validation team should be summarised in this section.*	*marise 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
Markus Knödlseder	**ATL**	☑	☑	
Johann Thaler	GHG-A	☑	☑	☑
Sandro Marostica	GHG-A	☑	☑	☑

Markus Knödlseder is an auditor for climate change projects and GHG emission inventories at the department "Carbon Management Service" in the head office of TÜV SÜD Industrie Service GmbH, Munich. He has been involved in the topic of environmental auditing, baselining, monitoring and verification due to the requirements of the Kyoto Protocol since Oct. 2001. His main focus lies on renewable energies.

Johann Thaler 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.

Sandro Marostica is a Food Engineer with an MBA from IMD, Lausanne Switzerland. He has acquired his first experiences in the CDM market in 2004 through the creation of his broker dealer company in the UK to negotiate CER forward contracts from CDM projects in Brazil. Based in Brazil he has been working for TÜV SÜD since April 06 as General Manager and GHG auditor, and is familiar with local laws and regulations.

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 3 to this report.

2.3 Follow-up Interviews

On December 14 and 15, 2006 TÜV SÜD performed interviews on-site with project stakeholders 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 this on-site visit. Between February 2007 and end of May 2007 an intensive Email conversation took place between Ecoinvest Carbon Brasil Ltda. and TÜV SÜD do Brasil.

Name	Organisation
Date: 14.12.2006: Headquarters at Usina Santa Adelia	
Norberto Bellodi	Executive Director, Usina Interlagos Ltda.
Jose Luis Godoy	Supervisor of Quality control, Usina Interlagos Ltda.
Jose Roberto Braido	Director of supplies, Usina Interlagos Ltda.
Idalina Spina	Coordinator of Quality control and Quality assurance, Usina Interlagos Ltda.
Plinio Sergio Wolpe	Accounting, Usina Interlagos Ltda.
Jose Braz Ernesto	Electrical Supervisor, Usina Interlagos Ltda.
Carlos Antonio Pita	Supervisor of steam generation, Usina Interlagos Ltda.
Eduardo Cesar de Lima	Assistant of Quality System, Usina Interlagos Ltda.
Jenny Komatsu	Chemical Engineer, Ecoinvest Carbon Brasil Ltda.
Date: 15.12.2006: Usina Interlagos	
Marlo Paulo Mori	Industrial Manager, Usina Interlagos Ltda.
Sergio Lober Fenegalha	Electrical Supervisor, Usina Interlagos Ltda.
Jaime Daniel Valenca	Process Supervisor, Usina Interlagos Ltda.
Jenny Komatsu	Chemical Engineer, Ecoinvest Carbon Brasil Ltda.

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 protocols in annex 1 and annex 2.

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 finding are summarized in table 2 of the attached validation protocols. In total the assessment team expressed 26 Clarification Requests and 36 Corrective Action Requests.

The key findings during the validation process were related to the provision of information on the intended monitoring approach, missing parameters, the baseline emission data, the cash-flow (IRR) and benchmark (WACC) calculation and the emissions factor.

Information about how monitoring procedures look like, monitoring equipment, data archiving, back-up and calibration and some parameters to be monitored were missing in the initial PDD submitted to the validation team. Such a lack of information has been resolved in the final PDD.

Within the original documents and spreadsheets there have been some inconsistencies on figures and calculations delivering the result on the emission reduction estimation. These inconsistencies have been resolved in the final versions of the submitted documents. The given estimation is reproducible and substantiated by verified data and assumptions.

During the validation process the project participants decided to include the IRR discussion not anymore in step 3 (barrier analysis), but in step 2 of the additionality tool (investment analysis), using the weighted average cost of capital (WACC) as benchmark, comparing it to the project IRR.

The IRR of the project activity without being registered as a CDM project is below the WACC benchmark, evidencing that the project activity is not financially attractive to the investor. The IRR with CERs will be 11.28 %, similar to the WACC (11.57 %). CER credits were considered also after 2012, as the project participants believe that Kyoto Protocol will be extended.

Although the IRR inlucing CER credits is not higher than the WACC, the project participants know about the CDM registering benefits, as Interlagos belongs to Santa Adelia group which has another plant operating, registered as CDM project and already CERs issued. The fact that IRR with CERs will be almost the benchmark and the knowledge of the CDM registering benefits were the key points for the project participants to decide to implement the project activity.

Regarding the emissions factor, the validation team has informed the project participants that data of 2006 are already available to calculate the emissions factor for 2006. However, as Brazil has a large number of power plants and the system is very complex, the calculation of the Operating Margin emission factor (EF_{OM}) demands a certain time for analyzing the data, calculation and revision. Many project developers like Ecoinvest are involved in the calculation. At the stage of validation no further current data was available; Ecoinvest estimated that at the earliest at the end of June the emissions factor would be available. Currently the validation team can confirm the project's emissions factor of 2005 which is 0.2611 tCO2/MWh.

The project participants decided during the validation process to change the start of the crediting period from July 15, 2007 to April 15, 2008. The emission reduction calculation in the PDD was revised considering the change of the crediting period and CER credits for 2007 were taken out in the IRR calculation.

Baseline determination and additionality are correctly discussed by the PDD. There is no concern on this discussion as the plant would operate with low energy efficiency and could not export electricity to the grid in the absence of the project activity. From the country´s perspective, Brazil would use the current generation system, which is electricity supplied by large hydro and thermal power stations.

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/Guide2_1.aspx?ID=2371&Ebene1_ID=26&Ebene2_ID=703&mode=1	
Starting date of the global stakeholder consultation process:	
2006-12-06	
Comment submitted by:	**Issues raised:**
-	-
Response by TÜV SÜD:	
-	

5 VALIDATION OPINION

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

Usina Interlagos Cogeneration Project, Brazil.

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, 2007-09-03

_____
Certification Body "climate and energy"
TÜV SÜD Industrie Service GmbH

Munich, 2007-09-03

_____
Assessment Team Leader

Annex 1: Validation Protocol ACM0002

Validation Protocol

Project Title: Usina Interlagos Cogeneration Project
Date of Completion: 27.08.2007
Number of Pages: 33
Project Number: 918164

Table 1   Conformity of Project Activity and PDD

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of project activity					
A.1. Title of the project activity					
A.1.1.	Does the used project title clearly enable to identify the unique CDM activity?	1,2	Yes. The used project title clearly enables to identify the unique CDM activity.	☑	☑
A.1.2.	Are there any indication concerning the revision number and the date of the revision?	2	Yes. Version number and the date of the completion of the PDD are given.	☑	☑
A.1.3.	Is this consistent with the time line of the project's history?	1,2	Yes.	☑	☑
A.2. Description of the project activity					
A.2.1.	Is the description delivering a transparent overview of the project activities?	2	Yes. The description is delivering a transparent overview of the project activities.	☑	☑
A.2.2.	What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	8, 19	➢ ANEEL Resolution N° 219 from August, 03rd, 2006 explains that Interlagos is authorized to establish and operate a cogeneration sugar-cane plant and is authorized to sell the surplus of electricity to the grid. ➢ Installation Licence N° 13001173 issued on July, 13, 2005.	☑	☑
A.2.3.	Is the information provided by these proofs consistent with the information provided by the PDD?	2,8,19	Yes. The information provided by these proofs is consistent with the information provided by the PDD.	☑	☑
A.2.4.	Is all information presented consistent with details provided by further chapters of the PDD?	2	Yes. All information presented is consistent with details provided by further chapters of the PDD.	☑	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.3. Project participants					
A.3.1.	Is the form required for the indication of project participants correctly applied?	2	Yes.	☑	☑
A.3.2.	Is the participation of the listed entities or Parties confirmed by each one of them?	1,2	During the on-site visit the validation team has been persuaded that the 2 in the PDD listed entities participate in the project.	☑	☑
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 on participants is consistent with details provided by further chapters of the PDD.	☑	☑
A.4. Technical description of the project activity					
A.4.1.	*Location of the project activity*				
A.4.1.1.	Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1,2, 11	The information given in the PDD regarding the location is very scarce. Corrective Action Request 1: Ecoinvest should add both the exact address of the location of the project activity and the GPS dates in order to make it possible to identify the exact project site.	CAR 1	☑
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.)?	1,2,6 ,7	It has been presented the official registries about the ownership of the project site and the social contract of "Usina Interlagos Ltda." showing the foundation of the company to the validation team.	☑	☑
A.4.2.	*Category(ies) of project activity*				
A.4.2.1.	To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	1,2	The project activity belongs to Sectoral Scope: 1 – Energy industries (renewable - / non-renewable sources).	CR 1	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			Clarification Request 1: Ecoinvest should add the information "Sectoral Scope 1", in order to provide a complete information regarding the category.		
A.4.3.	*Technology to be employed by the project activity*				
A.4.3.1.	Does the technical design of the project activity reflect current good practices?	1,2	The technical design of the project activity reflects current good practices.	☑	☑
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1,2,5	Not all necessary information is provided to evaluate its impact on the greenhouse gas balance. Corrective Action Request 2: a) The boiler type is not described correctly in the PDD. The used boiler type is: AMD-73-7GI. Ecoinvest should correct this information. b) The project participants should provide information regarding capacity, lifetime, **efficiency** of boiler, turbine (turbo-reductor), generator used in the project.	CAR 2	☑
A.4.3.3.	Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1,2	Practically all equipment is produced in Brazil. Some minor parts (about 3-5 %) like electronical parts and valves are imported; Parts of the substation are 80 % nationally produced, 20 % are imported.	☑	☑
A.4.3.4.	Is the technology implemented by the project activity environmentally safe?	1,2,5	It is environmentally safe.	☑	☑
A.4.3.5.	Is the information provided in compliance with actual situation or planning?	1,2, 16	The information given in the PDD is not in compliance with actual situation or planning. Corrective Action Request 3: a) Chapter A.4.3. mentions an amount of generated electricity of annually 694,100 MWh. This is, however, contradic-	CAR 3	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			tionary to the information provided by calculation sheets by Ecoinvest and information received on-site. Ecoinvest should mention the right and realistic number in the PDD.		
			➢ The validation team has been informed on-site that there are concrete plans to install a second boiler and a second generator in 2010. The PDD does not mention anything about it. Ecoinvest should explain in the PDD **in detail** if		
			1. The planned expansion will make part of the project activity or not		
			2. CO2 credits are intended to be claimed from the expansion within the existing project activity or not		
			3. A new CDM project activity is intended to be realized in 2010.		
A.4.3.6.	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	Cogeneration projects today in operation use the same technology as the project will use. Hence, it can be said that the project use state of the art technology.	☑	☑
A.4.3.7.	Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2,5	The project technology is not likely to be substituted by other or more efficient technologies within the project period.	☑	☑
A.4.3.8.	Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1,2, 17	Documents have been submitted to the validation team showing that training have been partly realised and/or is envisaged.	☑	☑
A.4.3.9.	Is information available on the demand and requirements for training and maintenance?	1,2, 17	Yes. A document has been submitted to the validation team, showing all already realized and still required training and maintenance efforts.	☑	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?	1,2, 16	During the validation it has been confirmed to the validation team that the project start will be on September 04, 2006. Tests will already be realised before that date.	☑	☑
_A.4.4._ _Estimated amount of emission reductions over the chosen crediting period_				
A.4.4.1. Is the form required for the indication of projected emission reductions correctly applied?	2	The form required for the indication of projected emission reductions is not in all points correctly applied. Corrective Action Request 4: Table 3 should be modified in the following points: 1. The format should be the same as in the guidelines demanded. 2. Instead of "Total estimated emissions" it should be changed to "Total estimated reductions" as the guidelines demand. The project participants may claim CO2 credits still for some months in the 8th year, as in the first year there have not been claimed credits for the whole year (the credit starting period will begin on May 01, 2007). However, if this is done, it should be made a footnote mentioning the period for that CER credits are claimed in the first year and in the 8th year.	CAR 4	☑
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?	2	Corrective Action Request 5: The figures provided in "Table 3" are not consistent with another table indicated later on in the PDD (chapter B.6.4.). Ecoinvest should be consistent in their emission reduction figures and the table in chapter B.6.4 has to be provided with a consecutive number.	CAR 5	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.5.	*Public funding of the project activity*				
A.4.5.1.	Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1,2, 10	There is no public funding involved in the project. It is not a diversion of ODA.	☑	☑
A.4.5.2.	Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1,2, 10	Yes. All information provided is consistent with the details given in remaining chapters of the PDD.	☑	☑
B. Application of a baseline and monitoring methodology					
B.1. Title and reference of the approved baseline and monitoring methodology					
B.1.1.	Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	2,21, 22	Yes. All clearly indicated.	☑	☑
B.1.2.	Is the applied version the most recent one and / or is this version still applicable?	2,21, 22	The applied version is the most recent one.	☑	☑
B.2. Justification of the choice of the methodology and why it is applicable to the project activity					
B.2.1.	Is the applied methodology considered the most appropriate one?	2,21, 22	Yes. The applied methodology is considered the most appropriate one.	☑	☑
Fill in the required amount of sub checklists for applicability criteria as given by the methodology applied and comment at least every line answered with "No"					
B.2.2.	Criterion 1: Type of capacity addition by renewable energy	--	**Question not applicable as methodology is used only for the determination of the grid factor and in conjunction with methodology ACM0006.** Applicability checklist — Yes / No Criterion discussed in the PDD? — N/A	☑	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS		PDD in GSP	Final PDD
			Compliance provable?	N/A		
			Evidences provided in the PDD?	N/A		
			Compliance verified?	N/A		
B.2.3.	Criterion 2: Exclusion of fuel switching activities	--	**Question not applicable as methodology is used only for the determination of the grid factor and in conjunction with methodology ACM0006.**		☑	☑
			Applicability checklist	Yes / No		
			Criterion discussed in the PDD?	No		
			Compliance provable?	No		
			Evidences provided in the PDD?	No		
			Compliance verified?	No		
B.2.4.	Criterion 3: Defined electricity grid boundaries	1,2, 21, 22	Applicability checklist	Yes / No	☑	☑
			Criterion discussed in the PDD?	Yes.		
			Compliance provable?	Yes.		
			Evidences provided in the PDD?	Yes.		
			Compliance verified?	Yes.		
B.2.5.	Criterion 4: Approved inclusion in other methodolo-gies (if applied only)	2,21, 22, 23, 24	The methodology ACM0002-06 is included in the methodology ACM0006-04, the one most deemed for this project activity.		☑	☑
B.3. Description of the sources and gases included in the project boundary						

Integrate the required amount of sub-checklists for sources and gases as given by the methodology applied and comment on at least every line an-

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS		PDD in GSP	Final PDD
swered with "No"						
B.3.1.	Source: Fugitive Emissions from non-condensable gases (geothermal activities only) Gas(es): CO_2, CH_4 Type: Project Emissions	--	**Not applicable (N/A), as no geothermal activity.**<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td></td></tr><tr><td>Inclusion / exclusion justified?</td><td></td></tr><tr><td>Explanation / Justification sufficient?</td><td></td></tr><tr><td>Consistency with monitoring plan?</td><td></td></tr></table>		☑	☑
B.3.2.	Source: Emissions from combustion of fossil fuels (geothermal activities only) Gas(es): CO_2 Type: Project Emissions	--	**N/A as no geothermal activity**<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td></td></tr><tr><td>Inclusion / exclusion justified?</td><td></td></tr><tr><td>Explanation / Justification sufficient?</td><td></td></tr><tr><td>Consistency with monitoring plan?</td><td></td></tr></table>		☑	☑
B.3.3.	Source: Emissions from the reservoir (new hydroe-lectric activities only) Gas(es): CO_2, CH_4 Type: Project Emissions	--	**N/A as no hydroelectric activity**<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td></td></tr><tr><td>Inclusion / exclusion justified?</td><td></td></tr><tr><td>Explanation / Justification sufficient?</td><td></td></tr><tr><td>Consistency with monitoring plan?</td><td></td></tr></table>		☑	☑
B.3.4.	Source: Emissions from electricity generation in fossil fuel fired power plants of the project electricity system Gas(es): CO_2	2,21, 22	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>Yes.</td></tr><tr><td>**Inclusion** / exclusion justified?</td><td>Yes.</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes.</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes.</td></tr></table>		☑	☑

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	Type: Baseline Emissions				
B.3.5.	Source: Emissions from electricity generation in fossil fuel fired power plants of any con- nected electricity system Gas(es): CO_2 Type: Baseline Emissions	2,21, 22	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>No</td></tr><tr><td>Inclusion- / **exclusion** justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes.</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes.</td></tr></table> The exclusion is sufficiently justified.	☑	☑
B.3.6.	Source: Emissions from electricity generation in fossil fuel fired power plants of imported electricity Gas(es): CO_2 Type: Baseline Emissions	2,21, 22	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed by the PDD?</td><td>Yes.</td></tr><tr><td>Inclusion / **exclusion** justified?</td><td>Yes.</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes.</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes.</td></tr></table>	☑	☑
B.3.7.	Do the spatial and technological bounda- ries as verified on-site comply with the discussion provided by the PDD?	1,2, 21, 22	The spatial boundary regarding the electricity grid verified on-site complies with the discussion provided by the PDD.	☑	☑
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario					
B.4.1.	Is it clearly described that the baseline is represented by the combined margin of the grid the activity will be connected to?	2,21, 22	Yes. It is clearly described that the baseline is represented by the combined margin of build margin and operating margin.	☑	☑
B.4.2.	In case of any modification or retrofit of existing facilities:	--	Not applicable, as the project activity does not consist of any modification or retrofit of existing facilities.	☑	☑

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	Is data available to determine the historic production level?				
B.4.3.	In case of any modification or retrofit of existing facilities: Have conservative assumptions been applied in order to estimate the point in time when the existing equipment needs to be replaced?	--	Not applicable, see B.4.2.	☑	☑
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 CDM project activity (assessment and demonstration of additionality):					
B.5.1.	In case of applying step 0 of the additionality tool: Is evidence provided, that the project's starting date is after Jan 01, 2000 and before Nov 18, 2004?	--	Not applicable, as step 0 of the additionality tool is not applied.	☑	☑
B.5.2.	In case of applying step 0 of the additionality tool: Is evidence provided, that CDM has been considered seriously in the decision to proceed with the project activity?	--	Not applicable; see B.5.1.	☑	☑
B.5.3.	Have realistic and credible alternatives been identified providing comparable outputs or services? (step 1a)	1,2,27	From the country´s perspective: the continuation with large hydro and thermal power plants is a realistic and credible alternative; The statement given in the PDD, that the project owner would have been operated with lower energy efficiency without the project has been verified on-site and may be considered as true.	☑	☑
B.5.4.	Is the project activity without CDM included in these alternatives? (step 1a)	1,2,27	The project activity without CDM is not an alternative for the project owner, according information found on-site.	☑	☑
B.5.5.	Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations?	1,2,27	All alternatives, including the project activity are in compliance with applicable laws and regulations.	☑	☑

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	(step 1b)				
B.5.6.	In case the PDD argues that specific laws are not enforced in the country or region: Is evidence available concerning that statement? (step 1b)	--	Not applicable.	☑	☑
B.5.7.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	--	Not applicable, as a barrier analysis is applied.	☑	☑
B.5.8.	In case of Option I (simple cost analysis): Is it demonstrated that the activity pro-duces no economic benefits other than CDM income?	--	Not applicable.	☑	☑
B.5.9.	In case of Option II (investment compari-son analysis): Is the most suitable finan-cial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	--	Not applicable.	☑	☑
B.5.10.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	--	Not applicable.	☑	☑
B.5.11.	In case of Option II or Option III: Is the calculation of financial figures for this indi-cator correctly done for all alternatives and the project activity?	--	Not applicable.	☑	☑
B.5.12.	In case of Option II or Option III: Is the analysis presented in a transparent man-ner including publicly available proofs for the utilized data?	--	Not applicable.	☑	☑

	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.5.13.	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?	1,2,27	Yes. Investment, institutional and cultural barriers are mentioned in the PDD in a sufficient manner.	☑	☑
B.5.14.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2,9,27	Yes. Transparent and documented evidence is provided. Corrective Action Request 6: However, the Internal Rates of Return, which are mentioned under chapter "Investment Barriers" should be adapted to the correct numbers, which were passed during the on-site visit: the IRR without CDM is 10,9 %, with CDM 14,6 %.	CAR 6	☑
B.5.15.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	2,27	Yes. It is transparently shown that the continuation of the status quo is not prevented by the identified barriers.	☑	☑
B.5.16.	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)?	2, 15,27	Yes. Similar project activities are analyzed by the PDD. Clarification Request 2: However, it should be documented the fact that not more than 10 % of the sugar mills in the Centre South region have developed a similar project activity than those of Interlagos and those with a similar project activity has been realised as CDM projects.	CR 2	☑
B.5.17.	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)?	1,2, 15,27	All similar activities mentioned in the PDD has been realised as CDM projects. According to information found on site the project activity would not have been implemented without the CDM component because of a too low IRR.	☑	☑
B.5.18.	Is it appropriately explained how the ap-	2,27	Yes. It is appropriately explained how the approval of the project	☑	☑

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	proval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?		activity will help to overcome the economic and financial hurdles or other identified barriers.		
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?	2,21, 22,23,24	Yes. The procedures provided in the methodology are explained in the PDD.	☑	☑
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?	1,2,21,22, 23,24	Yes.	☑	☑
B.6.1.3.	Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,21, 22,23,24, 25,26	The formula indicated for the determination of project emissions is not correctly presented. Corrective Action Request 7: There is not mentioned one part of the formula "project emissions", namely the CO_2 emissions from consumption of electricity (PE_{ECy}). Ecoinvest should include that parameter into the formula or explain why it has been neglected.	CAR 7	☑
B.6.1.4.	Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,21, 22,23,24, 25, 26	Yes. The formulae required for the determination of baseline emissions are correctly presented. Clarification Request 3: However, Ecoinvest should use the most updated IPCC data of 2006 for their calculations and informations and indicate this reference correctly in the PDD.	CR 3	☑
B.6.1.5.	Is the choice of options to determine the	2,21,	Yes. It is explained in detail why the simple adjusted operating	☑	☑

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	emissions factor (OM, BM) justified in a suitable and transparent manner?	22, 25, 26	margin for the calculation of the emissions factor (OM, BM) is used.		
B.6.1.6.	In case of alternative weighing factors for the Combined Margin: Is the quantification of the alternative weighing factor justified in a suitable and transparent manner?	--	Not applicable as no alternative weighing factors for the combined margin is used.	☑	☑
B.6.1.7.	In case of alternative weighing factors for the Combined Margin: Is the guidance for the PDD concerning the acceptability of alternative weights considered in the discussion?	--	Not applicable; see B.6.1.6.	☑	☑
B.6.1.8.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,21, 22	Leakage emissions do not have to be considered according to the methodology ACM0002 (version 6).	☑	☑
B.6.1.9.	Are formulae required for the determination of emission reductions correctly presented?	2,21, 22,23,24	Yes. All formulae required for the determination of emission reductions are correctly presented.	☑	☑
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?	2,21, 22	Yes. The list of parameters presented in chapter B.6.2. is considered to be complete.	☑	☑
B.6.2.2.	Is the choice of ex-ante or ex-post vintage of OM and BM factors clearly specified in the PDD?	1,2, 21,	<u>Clarification Request 4:</u> It is not clearly specified in the PDD if it is chosen the ex-ante or	CR 4	☑

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	22	ex-post vintage of OM factor. This information has to be clearly specified in the PDD.		

| Fill in the required amount of sub checklists for monitoring parameter and comment any line answered with "No" |||||

B.6.2.3. Parameter Title: Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modification activities)	--	**Not applicable as no retrofit or modifcation project** 	Data Checklist	Yes / No
Title in line with methodology?	-
Data unit correctly expressed?	-
Appropriate description of parameter?	-
Source clearly referenced?	-
Correct value provided?	-
Has this value been verified?	-
Choice of data correctly justified?	-
Measurement method correctly described?	-		☑	☑
B.6.2.4. Parameter Title: Emission factor of the grid (CM)	2,21, 22		Data 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?	Yes.
Has this value been verified?	Yes.
Choice of data correctly justified?	No
Measurement method correctly described?	No	 Clarification Request 5: Regarding the appropriate description it should be added "**CO2** emission factor..", regarding the justification of choice of data it is	CR 5	☑

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		not referred to the right methodology in the opinion of the validation team. Ecoinvest should explain why it refers to the monitoring methodology ACM0006, and not to the baseline methodology of ACM0002 and it has to be explained if the parameter is calculated ex-ante or ex-post.		
B.6.2.5. Parameter Title: Operating margin (OM) emission factor of the grid	2,21, 22	<table><tr><td>Data Checklist</td><td>Yes / No</td></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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> **See B.6.2.2.**	See CR 4	☑
B.6.2.6. Parameter Title: Build margin (BM) emission factor of the grid	2,21, 22	<table><tr><td>Data Checklist</td><td>Yes / No</td></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>	☑	☑
B.6.2.7. Parameter Title:	2,21,	**Not explicitly mentioned in Table B.6.2.; however explained in**	CAR 8	☑

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fuel consumption of each power source	22	**previous chapter of the PDD;** <table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Corrective Action Request 8: The parameter "fuel consumption of each power source" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.		
B.6.2.8. Parameter Title: emission coefficient of each fuel	2, 21, 22	**Not explicitly mentioned in Table B.6.2.; however explained in previous chapter of the PDD;** <table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Corrective Action Request 9: The parameter "emission coefficient of each fuel" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	CAR 9	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.6.2.9. Parameter Title: electricity generation of each power source	-	**Not explicitly mentioned in Table B.6.2.; however data provided in separate Excel sheet "Grid baseline calculation";** <table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Corrective Action Request 10: The parameter "electricity generation of each power" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	CAR 10	☑
B.6.2.10. Parameter Title: surface area of full reservoir level (for new hydroelectric activities only)	--	**Not applicable, as no hydroelectric activity** <table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td></td></tr><tr><td>Data unit correctly expressed?</td><td></td></tr><tr><td>Appropriate description of parameter?</td><td></td></tr><tr><td>Source clearly referenced?</td><td></td></tr><tr><td>Correct value provided?</td><td></td></tr><tr><td>Has this value been verified?</td><td></td></tr><tr><td>Choice of data correctly justified?</td><td></td></tr><tr><td>Measurement method correctly described?</td><td></td></tr></table>	☑	☑
B.6.2.11. Parameter Title: fraction of time with low costs /must run	2,21, 22	<table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes.</td></tr></table>	CR 6	☑

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(for simple adjusted OM only)		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?	No		
		Measurement method correctly described?	No		
		Clarification Request 6: a) It should be explained why no justification of the parameter "fraction of time" is given. Ecoinvest should add the necessary information. b) It has to be especified if the parameter is determined ex-ante or ex-post.			
B.6.2.12. Parameter Title: electricity imports	2, 21, 22	**Not explicitly mentioned in Table B.6.2.; however data provided in separate Excel sheet "Grid baseline calculation";**		CAR 11	☑
		Data 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?	No		
		Has this value been verified?	No		
		Choice of data correctly justified?	No		
		Measurement method correctly described?	No		
		Corrective Action Request 11: The parameter "electricity imports" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.			

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B.6.2.13. Parameter Title: CO_2 emission coefficient of fuels used in connected grids	2, 21, 22	**Not explicitly mentioned in Table B.6.2.; however data provided in separate Excel sheet "Grid baseline calculation";** Data 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? — No Has this value been verified? — No Choice of data correctly justified? — No Measurement method correctly described? — No Corrective Action Request 12: The parameter "CO_2 emission coefficient of fuels used in connected grids" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	CAR 12	☑
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?	2	Yes. The projection is based on the same procedures as used for future monitoring.	☑	☑
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	2	The GHG calculations are documented in a complete and transparent manner.	☑	☑
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	2	Corrective Action Request 13: The value "fraction of time with low costs/must run plant at the margin" indicated in B.6.2 for 2004 is inconsistent with the value of Table 6 for 2004. The value in Table 6 should be the same as indicated in B.6.2. Ecoinvest should provide consistent data for this given parameter.	CAR 13	☑
B.6.4. **Summary of the ex-ante estimation of emission reductions**				
B.6.4.1. Will the project result in fewer GHG	1,2	Yes. The project will result in fewer GHG emissions than the	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	emissions than the baseline scenario?		baseline scenario.		
B.6.4.2.	Is the form/table required for the indication of projected emission reductions correctly applied?	2	Yes. The table required for the indication of projected emission reductions is correctly applied.	☑	☑
B.6.4.3.	Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1,2, 16	Yes. The starting date of May, 01, 2007 was confirmed on-site. The operation will begin on April, 23, 2007.	☑	☑
B.6.4.4.	Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	2	The data provided in this section is not consistent with data in other chapters of the PDD. Corrective Action Request 14: a) Ecoinvest should provide emission reductions data which are consistent for the whole PDD. b) Besides, in the estimation of emission reduction is also in-cluded the electricity for self-consumption. However, this should not generate any CO2 emission reduction credits, as practically all sugar cane plants in Brazil generate their own electricity. Thus, it is already business as usual and should not claim for CO2 credits.	CAR 14	☑
B.7. Application of the monitoring methodology and description of the monitoring plan					
B.7.1. Data and parameters monitored					
B.7.1.1.	Is the list of parameters presented by chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	2,22	Yes. The list of parameters is complete.	☑	☑
Integrate the required amount of sub-checklists for monitoring parameter and comment on any line answered with "No"					
B.7.1.2.	Parameter Title:	1,2,4			☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
Electricity supplied to the grid	,12, 13	Monitoring Checklist	Yes / No	CAR 15 CR 7 CR 8	
		Title in line with methodology?	Yes.		
		Data unit correctly expressed?	Yes.		
		Appropriate description of parameter?	Yes.		
		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?	Yes.		
		QA/QC procedures appropriate?	Yes.		
		Corrective Action Request 15: It seems that the value indicated for "electricity supplied to the grid" includes the electricity used for self-consumption. It has to be considered and deducted the value for self-consumption, if determining the value of "electricity supplied to the grid". Besides, the validation team asks Ecoinvest to clarify if it has taken only the days of electricity generation (harvest time) and not the whole year (365 days). Clarification Request 7: It should be indicated the accuracy (uncertainty level) of the parameter "electricity supplied to the grid". Clarification Request 8: Information is requested which measuring method or in respective to which national or international standard the measurement will be done.			
B.7.1.3. Parameter Title: Quantity of steam produced (for geothermal projects only)	--	**Not applicable, as no geothermal project;**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.4. Parameter Title: Fraction of CO_2 in steam produced (for geothermal projects only)	--	**Not applicable, as no geothermal project**		☑	☑
		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?			
B.7.1.5. Parameter Title: Fraction of CH_4 in steam produced (for geothermal projects only)	--	**Not applicable, as no geothermal project**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.6.	--	**Not applicable, as no geothermal project**		☑	☑
Parameter Title: Quantity of steam generated during well testing (for geothermal projects only)		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?			
B.7.1.7.	--	**Not applicable, as no geothermal project**		☑	☑
Parameter Title: Fraction of CO_2 in steam during well testing		Monitoring Checklist	Yes / No		
		Title in line with methodology?			

Table 1 is applicable to ACM0002, version 06 with ex-ante determination of CM

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
(for geothermal projects only)		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?			
B.7.1.8. Parameter Title: Fraction of CH_4 in steam during well testing (for geothermal projects only)	--	**Not applicable, as no geothermal project**		☑	☑
		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?			
B.7.1.9. Parameter Title: CO_2 emission coefficient of fuel used by the geothermal plant	--	**Not applicable, as no geothermal project**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
(for geothermal projects only)		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?			
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 envisoned situation?	2,18, 22	<u>Corrective Action Request 16:</u> The monitoring plan does not describe how many and at which position relevant a/o backup meters will be implemented. Furthermore it does not define which values in respective from which source will be recorded and processed to the monitoring report. Furthermore the responsibilities should be drawn. In addition it should be described which data and how will be recorded and stored.		CAR 16	☑
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	2,18, 22	It is nothing said about data archiving in the PDD. <u>Corrective Action Request 17:</u> Information about data archiving (procedures, responsibilites) should be added in the PDD.		CAR 17	☑
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	2,18, 22	The monitoring plan is not describing all parameters which have to be monitored according to the methdology ACM0006. See also B.7.1.1. of the Validation Protocol ACM0006.		CAR 18	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			Corrective Action Request 18: Ecoinvest should mention all parameters in the monitoring plan that have to be monitored according to the methodology ACM0006 including its monitoring procedures and responsibilities.		
B.7.2.4.	If applicable: Does annex 4 provide useful information enabling a better under-standing of the envisoned monitoring provisions?	2,18, 22	See F.1.9.	See CAR 20	☑
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.	Is there any indication of a date when the baseline was determined?	2	Yes. The baseline was determined on October 30, 2006.	☑	☑
B.8.2.	Is this consistent with the time line of the PDD history?	2	Yes. It is consistent with the time line of the PDD history.	☑	☑
B.8.3.	Is the information on the person(s) / en-tity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situa-tion?	2	Yes.	☑	☑
B.8.4.	Is information provided whether this per-son / entity is also considered a project participant?	2	The entity which is responsible for determination of the baseline is a project participant.	☑	☑
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 opera-	1,2,	The project´s starting date and operational lifetime are determined	☑	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
	tional lifetime clearly defined and reasonable?	16	on May, 01, 2007. This has been confirmed on-site.		
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)?	2	It is defined a renewable crediting period of 7 years.	☑	☑
D. Environmental impacts					
D.1.	**Documentation on the analysis of the environmental impacts, including transboundary impacts**				
D.1.1.	Has the analysis of the environmental impacts of the project activity been sufficiently described?	1,2,19	Yes. The environmental impact of the project activity is considered not to be significant.	☑	☑
D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1,2,19	A Preliminary Environmental Report has been completed. An EIA has not been required, as the environmental impact of the project activity is considered not to be significant.	☑	☑
D.1.3.	Will the project create any adverse environmental effects?	1,2,19	No significant adverse environmental effects are expected.	☑	☑
D.1.4.	Were transboundary environmental impacts identified in the analysis?	1,2,19	There have **not** been identified transboundary environmental impacts in the analysis. Clarification Request 9: It should be mentioned in the PDD, that the project does not imply transboundary environmental impacts.	CR 9	☑

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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?	--	Not applicable, as environmental impact of the project activity is considered not to be significant.	☑	☑
D.2.2. Does the project comply with environmental legislation in the host country?	1,2, 19	The project complies with the environmental legislation in the host country. All necessary licences have been obtained so far.	☑	☑
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, 20	Yes.	☑	☑
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,2, 20	Yes.	☑	☑
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1,2, 20	The Brazilian DNA gives guidance how the local stakeholder process has to be conducted. The validation team may confirm that the process has been performed as required.	☑	☑
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1,2, 20	Yes. The undertaken stakeholder process is described in a complete and transparent manner..	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
E.2. Summary of the comments received				
E.2.1. Is a summary of the stakeholder comments received provided?	1,2, 20	Yes. There has been one comment received by FBOMS.	☑	☑
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, 20	Yes. It has been taken account of the comment received.	☑	☑
F. Annexes 1 - 4				
Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	2	Yes. All information provided is consistent with the one given under section A.3.	☑	☑
F.1.2. Is the information on all private participants and directly involved Parties presented?	2	Yes. All information of all private participants and directly involved Parties is presented.	☑	☑
Annex 2: Information regarding public funding				
F.1.3. 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, 10	There is no public funding involved.	☑	☑
F.1.4. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1,2, 10	As no funding is involved, no affirmation is necessary.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
Annex 3: Baseline information				
F.1.5. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	2,3,21,22, 25, 26	Not all information is consistent with data presented by other sections of the PDD. Corrective Action Request 19: Page 39 talks of "daily dispatch information" for years 2002, 2003 and 2004. However, the baseline data is referring to the most recent years 2003, 2004 and 2005. Ecoinvest should correct that.	CAR 19	☑
F.1.6. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	2,3	Yes. Sufficient evidence has been provided to the validation team.	☑	☑
F.1.7. Does the additional information substantiate / support statements given in other sections of the PDD?	2,3	Yes. The additional information supports statements given in other sections of the PDD.	☑	☑
Annex 4: Monitoring information				
F.1.8. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	2,18	Yes.	☑	☑
F.1.9. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1,2, 18	Corrective Action Request 20: Annex 4 does not mention any monitoring procedures how the monitoring will look like. Ecoinvest should explain in detail (if possible with flow-charts) the type of measurement instrumentation used (amongst others flow-meters and its specifications like quantity, model, calibration procedures) and how it is measured (using default values or on-site measurements).	CAR 20	☑
F.1.10. Do the additional information and / or	1,2,	Yes.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
documented procedures substantiate / support statements given in other sections of the PDD?	18			

Table 2   Resolution of Corrective Action and Clarification Requests

Findings and discussion summarized in following validation protocol table 2

Annex 2: Validation Protocol ACM0006

Table 1   Conformity of Project Activity and PDD

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of project activity *Has been considered in the previous validation protocol*				
A.1. Title of the project activity				
A.2. Description of the project activity				
A.3. Project participants				
A.4. Technical description of the project activity				
A.4.1. Location of the project activity				
A.4.2. Category(ies) of project activity				
A.4.3. Technology to be employed by the project activity				
A.4.4. Estimated amount of emission reductions over the chosen crediting period				
A.4.5. Public funding of the project activity				
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology				
B.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	2,23, 24	Yes. Reference number, version number and title of the baseline and monitoring methodology are clearly indicated.	☑	☑

Table 1 is applicable to ACM0006, vers 4   Page A-1

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
B.1.2.	Is the applied version the most recent one and / or is this version still applicable?	2,23, 24	It is not applied the version the most recent one. Corrective Action Request 21: It should be applied the most recent version, namely version 4 of the methodology ACM0006.	CAR 21	☑
B.2. Justification of the choice of the methodology and why it is applicable to the project activity					
B.2.1.	Is the applied methodology considered the most appropriate one?	2,23, 24	Yes. The applied methodology is considered to be the most appropriate one.	☑	☑
B.2.2.	Is the project activity clear according to the PDD?	1,2, 23, 24	Yes. <table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Greenfield project?</td><td>Yes</td></tr><tr><td>Power capacity expansion project?</td><td>No</td></tr><tr><td>Energy efficiency improvement project?</td><td>No</td></tr><tr><td>Fuel switch project?</td><td>No</td></tr></table>	☑	☑
B.2.3.	Applicability Criterion 1: No other biomass types than biomass residues are used and these residues are the predominant fuel.	1,2, 23, 24	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr></table>	☑	☑

Table 1 is applicable to ACM0006, vers 4   Page A-2

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Evidences provided in the PDD?	Yes		
		Compliance verified?	Yes		
B.2.4. Criterion 2: For projects that use biomass residues from a production process (e.g. production of sugar or wood panel boards), the implementation of the project shall not result in an increase of the processing capacity of raw input (e.g. sugar, rice, logs, etc.) or in other substantial changes (e.g. product change) in this process	1,2, 12 23, 24	Applicability checklist / Yes / No Criterion discussed in the PDD? / Yes Compliance provable? / No Evidences provided in the PDD? / No Compliance verified? / No Clarification Request 10: The PDD mentions that Table 4 "shows that the cogeneration project does not have an impact in processing capacity". However, one may interpret the steady increase of processing capacity (from one year to another) as the Table shows, due to the implementation of the cogeneration project activity. Ecoinvest should provide other concrete evidences showing that the cogeneration project does not imply an increase of the processing capacity and bagasse consumption. Corrective Action Request 22: The information about bagasse consumption given in Table 4 of the PDD is not consistent with the numbers provided in Excel sheets by Ecoinvest. Even two submitted excel sheets mention dif-		CR 10 CAR 22 CAR 23	☑

Table 1 is applicable to ACM0006, vers 4   Page A-3

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		ferent numbers for "bagasse consumption". Ecoinvest should provide consistent numbers in all documents regarding the parameter "bagasse consumption". Corrective Action Request 23: The information given below Table 4 indicating that "Interlagos Project will generate approximately 300 MWh yearly (for sale and internal use) per million tonnes of sugar cane processed" is not realistic and completely inconsistent with other informations provided in the PDD and by Excel calculation sheets.		
B.2.5. Criterion 3: The biomass residues used by the project facility should not be stored for more than one year;	1,2, 23, 24	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes.</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes (on-site)</td></tr></table>	☑	☑
B.2.6. Criterion 4: No significant energy quantities, *except from transportation or mechanical treatment of the biomass residues*, are required to prepare the biomass residues for fuel combustion	1,2, 23, 24	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr></table>	☑	☑

Table 1 is applicable to ACM0006, vers 4   Page A-4

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Compliance provable?	Yes		
		Evidences provided in the PDD?	Yes		
		Compliance verified?	Yes (on-site)		
B.2.7. Criterion 5: no storage for more than one year	1,2, 23, 24			☑	☑
		Applicability checklist	Yes / No		
		Criterion discussed in the PDD?	Yes		
		Compliance provable?	Yes		
		Evidences provided in the PDD?	Yes		
		Compliance verified?	Yes		
B.2.8. Criterion 6: no processing of the biomass residues prior to combustion except from transportation or mechanical treatment	1,2, 23, 24			☑	☑
		Applicability checklist	Yes / No		
		Criterion discussed in the PDD?	Yes		
		Compliance provable?	Yes		
		Evidences provided in the PDD?	Yes		
		Compliance verified?	Yes		

Table 1 is applicable to ACM0006, vers 4   Page A-5

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.3. Description of the sources and gases included in the project boundary				
B.3.1. Source: Grid electricity generation Gas(es): CO2 Type: Baseline Emissions	1,2, 23, 24, 18	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>**Inclusion** / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	☑	☑
B.3.2. Source: Heat generation Gas(es): CO2 Type: Baseline Emissions	1,2, 23, 24, 18	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / **exclusion** justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	☑	☑
B.3.3. Source: Uncontrolled burning or decay of surplus biomass residues Gas(es): CH4 Type: Baseline Emissions	1,2, 23, 24,	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr></table>	☑	☑

Table 1 is applicable to ACM0006, vers 4   Page A-6

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
	18	Inclusion / **exclusion** justified?	Yes		
		Explanation / Justification sufficient?	Yes		
		Consistency with monitoring plan?	Yes		
B.3.4. Source: On-site fossil fuel or electricity consumption Gas(es): CO2 Type: Project Emissions	1,2, 23, 24, 18			CR 11	☑
		Boundary checklist	**Yes / No**		
		Source and gas(es) discussed in the PDD?	Fossil fuel consumption yes/electricity consumption no		
		Inclusion / **exclusion** justified?	No		
		Explanation / Justification sufficient?	No		
		Consistency with monitoring plan?	No		
		Clarification Request 11:			
		Ecoinvest should explain why electricity consumption due to the project activity is not discussed in the PDD. The validation team has identified project emissions (electricity purchase) during off-harvest period. Ecoinvest should consider such project emissions			

Table 1 is applicable to ACM0006, vers 4   Page A-7

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		and in the case if not, explain why it does not have to be considered.		
B.3.5. Source: Off-site transportation of biomass residues Gas(es): CO2 Type: Project Emissions	1,2, 23, 24, 18	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / **exclusion** justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	☑	☑
B.3.6. Source: Combustion of biomass residues Gas(es): CH4 Type: Project Emissions	1,2, 23, 24, 18	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / **exclusion** justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	☑	☑
B.3.7. Is the spatial extension of project boundary clear described?	1,2, 23,	The explaination of the spatial extent of the project boundary is in contradiction to Figure 4 of the PDD. Figure 4 does not include the sugar-cane plantations and the region, which is closeby to the sugar cane plant into the spatial boundary, however the explaina-	CR 12	☑

Table 1 is applicable to ACM0006, vers 4   Page A-8

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
		24,	tion does include it. <u>Clarification Request 12:</u> Ecoinvest should clearly describe the spatial boundary and be consistent in all the information given.		
B.3.8.	Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1,2, 23, 24	See B.3.7.	See CR 12	☑
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario					
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, 23,24	Realistic and credible alternatives should be determined: <table><tr><td>Completely discussed and reasoned in PDD?</td><td>Yes / No</td></tr><tr><td>how **power** would be generated in the absence of the CDM project activity;</td><td>Yes</td></tr><tr><td>what would happen to the **biomass residues** in the absence of the project activity; and</td><td>Yes</td></tr><tr><td>in case of cogeneration projects: how the **heat** would be generated in the absence of the project activity</td><td>Yes</td></tr></table>	☑	☑
B.4.2.	Is the project activity categorized and is that retraceable?	1,2, 23,	For **power** generation, the realistic and credible alternatives may include	CAR 24	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
	24	Categories	Yes / No		
		P1	The proposed project activity not undertaken as a CDM project activity	No		
		P2	The proposed project activity (installation of a power plant), fired with the same type of biomass residues but with a lower efficiency of electrical generation (e.g. an efficiency that is common practice in the relevant industry sector)	Yes		
		P3	The generation of power in an existing plant, on-site or nearby the project site, using only fossil fuels	No		
		P4	The generation of power in existing and/or new grid-connected power plants	Yes		
		P5	The continuation of power generation in an existing power plant, fired with the same type of biomass residues as (co-) fired in the project activity, and implementation of the project activity, not undertaken as a CDM project activity, at the end of the lifetime of the exist-	No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		<table><tr><td>P6</td><td>The continuation of power generation in an existing power plant, fired with the same type of biomass residues as (co-) fired in the project activity and, at the end of the lifetime of the existing plant, replacement of that plant by a similar new plant</td><td>No</td></tr></table> For **heat** generation, realistic and credible alternative(s) may include, <table><tr><td>Categories</td><td>Yes / No</td></tr><tr><td>H1</td><td>The proposed project activity not undertaken as a CDM project activity</td><td>No</td></tr><tr><td>H2</td><td>The proposed project activity (installation of a cogeneration power plant), fired with the same type of biomass residues but with a different efficiency of heat generation (e.g. an efficiency that is common practice in the relevant industry sector)</td><td>Yes</td></tr><tr><td>H3</td><td>The generation of heat in an existing cogeneration plant, on-site or nearby the project site, using only fossil fuels</td><td>No</td></tr><tr><td>H4</td><td>The generation of heat in boilers using the</td><td>No</td></tr></table>		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		H5	The continuation of heat generation in an existing cogeneration plant, fired with the same type of biomass residues as in the project activity, and implementation of the project activity, not undertaken as a CDM project activity, at the end of the lifetime of the existing plant	No	
		H6	The generation of heat in boilers using fossil fuels	No	
		H7	The use of heat from external sources, such as district heat	No	
		H8	Other heat generation technologies (e.g. heat pumps or solar energy)	No	

For the use of **biomass residues**, the realistic and credible alternative(s) may include, *inter alia*:

Categories		Yes / No
B1	The biomass residues are dumped or left to decay under mainly aerobic conditions. This applies, for example, to dumping and decay	No

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		B2	The biomass residues are dumped or left to decay under clearly anaerobic conditions. This applies, for example, to deep landfills with more than 5 meters. This does not apply to biomass residues that are stock-piled1 or left to decay on fields.	No		
		B3	The biomass residues are burnt in an uncontrolled manner without utilizing it for energy purposes.	No		
		B4	The biomass residues are used for heat and/or electricity generation at the project site	Yes		
		B5	The biomass residues are used for power generation, including cogeneration, in other existing or new grid-connected power plants2	No		
		B6	The biomass residues are used for heat generation in other existing or new boilers at other sites3	No		
		B7	The biomass residues are used for other energy purposes, such as the generation of bio-fuels	No		
		B8	The biomass residues are used for non-energy purposes, e.g. as fertilizer or as feed-stock in processes (e.g. in the pulp and paper	No		

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			Corrective Action Request 24:		
			It has not been used the correct category for biomass residues. Instead of B2 it has to be used B4. The project participants should update the correct information.		
B.4.3.	What kind of scenario combination has been applied according to table 1 of methodology?	1,2, 23, 24	It has been applied scenario 4.	☑	☑
B.4.4.	Does chosen scenario meet engineered project activity?	1,2, 23, 24	Yes.	☑	☑
B.4.5.	Have applicable regulatory or legal requirements been identified?	1,2	No regulatory or legal requirements except those for obtaining an environmental licence have been identified.	☑	☑
B.4.6.	Does project identify correctly and excludes those options not in line with regulatory or legal requirements?	--	Not applicable. See B.4.5.	☑	☑
B.4.7.	In case of scenarios 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16 and 17, a power plant was already operated in respective in case of scenarios 1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16 and 17, heat may already have been generated at the project site prior to the implementation of the project activity. Hence, the lifetime and age of baseline components need to be considered.	--	**Not applicable, as no heat has been generated prior to the implementation of the project activity.**	☑	☑

Data Checklist	Yes / No
Age of each component mentioned?	
Expected lifetime of each component mentioned?	
Does the ending date fall in the scheduled credit-	

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS		PDD in GSP	Final PDD
			ing period of the project?			
			Evidences clearly referenced?			
			Has this value been verified?			
			Choice of data correctly justified?			
			Measurement method correctly described?			
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 CDM project activity (assessment and demonstration of additionality):**					
B.5.1.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	--	Not applicable, as it is applied the barrier analysis.		☑	☑
B.5.2.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	--	Not applicable.		☑	☑
B.5.3.	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)?	--	Not applicable.		☑	☑
B.5.4.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit	--	Not applicable.		☑	☑

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	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	ratio, or (levelized) unit cost)?				
B.5.5.	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?	--	Not applicable.	☑	☑
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	--	Not applicable.	☑	☑
B.5.7.	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?	1,2,27	Yes. Investment, institutional and cultural barriers are mentioned in the PDD in a sufficient manner.	☑	☑
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2,9,27	Yes. Transparent and documented evidence is provided. Corrective Action Request 6: However, the Internal Rates of Return, which are mentioned under chapter "Investment Barriers" should be adapted to the correct numbers, which were passed during the on-site visit: the IRR without CDM is 10,9 %, with CDM 14,6 %.	CAR 6	☑
B.5.9.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	2,27	Yes. It is transparently shown that the continuation of the status quo is not prevented by the identified barriers.	☑	☑

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
B.5.10.	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)?	2, 15,27	Yes. Similar project activities are analyzed by the PDD. Clarification Request 2 However, it should be documented the fact that not more than 10 % of the sugar mills in the Centre South region have developed a similar project activity than those of Interlagos and those with a similar project activity has been realized as CDM projects	CR 2	☑
B.5.11.	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)?	1,2, 15,27	All similar activities mentioned in the PDD has been realized as CDM projects. According to information found on site the project activity would not have been implemented without the CDM component because of a too low IRR.	☑	☑
B.5.12.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?	2,27	Yes. It is appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers.	☑	☑
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?	2,21, 22, 23, 24	Yes. The procedures provided in the methodology are explained in the PDD.	☑	☑
B.6.1.2.	Is every selection of options offered by the	1,2,	Yes.	☑	☑

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	CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	methodology correctly justified and is this justification in line with the situation verified on-site?	21, 22, 23, 24			
B.6.1.3.	Which conservativeness factor has been chosen and how is this choice justified	--	Not applicable as methane emissions from combustion of biomass residues are not included in the project boundary.	☑	☑
B.6.1.4.	Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,21, 22, 23, 24, 25, 26	Beyond equal formulas applied in ACM0002 formulas of ACM0006 have been applied correctly	☑	☑
B.6.1.5.	Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,21, 22, 23, 24, 25, 26	Yes. The formulae required for the determination of baseline emissions are correctly presented. Clarification Request 3: However, Ecoinvest should use the most updated IPCC data of 2006 for their calculations and informations and indicate this reference correctly in the PDD.	CR 3	☑
B.6.1.6.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	2,23, 24	Leakage emissions do not have to be considered according to the methodology ACM0006 (version 4) for scenario 4.	☑	☑
B.6.1.7.	Are the formulae required for the determi-	2,21,	Yes. All formulae required for the determination of emission reduc-	☑	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
nation of emission reductions correctly presented?	22,23,24	tions are correctly presented.		
B.6.2. *Data and parameters that are available at validation* *The Emission reduction is estimated by the formula ERy = ERheat, y + ERelectricity, y + BEbiomass, y − PEy − Ly* *ERy = Emissions reductions of the project activity during the year y (tCO2/yr)* *ERelectricity,y = Emission reductions due to displacement of electricity during the year y (tCO2/yr)* *ERheat,y = Emission reductions due to displacement of heat during the year y (tCO2/yr)* *BEbiomass,y = Baseline emissions due to natural decay or burning of anthropogenic sources of biomass residues during the year y (tCO2e/yr)* *PEy = Project emissions during the year y (tCO2/yr)* *Ly = Leakage emissions during the year y (tCO2/yr)* *Depending on the project not all variables are relevant. Only relevant variables shall be considered following.* *Parameters that are not relevant shall be addressed as not relevant.*				
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?	2,23,24	No. The list of parameters presented in chapter B.6.2. is not complete. Corrective Action Request 25: According to the methodology ACM0006 (version 4) and project specific issues the following parameters are missing in chapter B.6.2: Parameter available at validation: $\varepsilon_{el,\ reference\ plant}$/ $\varepsilon_{th,\ reference\ plant}$: Average net energy efficiency of power/heat generation in the reference power/cogeneration plant that would use the biomass residues fired in the project plant in the absence of the project activity $\varepsilon_{boiler,biomass}$: energy efficiency of the biomass residue fired boiler	CAR 25	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		that would be used in the absence of the project activity.		
		Ecoinvest should mention the relevant parameters in the PDD.		
B.6.2.2. Does the quantity of biomass residues refer to the dry weight?	1,2, 23, 24	Clarification Request 13: It should be clearly indicated in the PDD if the bagasse consumption mentioned in Table 4 of the PDD refers to dry weight.	CR 13	☑
B.6.2.3. Parameter Title: Global warming potential for CH4 GWP CH4	--	**Not relevant as methane emissions from combustion of biomass residues are not included in the project boundary.** <table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td></td></tr><tr><td>Data unit correctly expressed?</td><td></td></tr><tr><td>Appropriate description of parameter?</td><td></td></tr><tr><td>Source clearly referenced?</td><td></td></tr><tr><td>Correct value provided?</td><td></td></tr><tr><td>Has this value been verified?</td><td></td></tr><tr><td>Choice of data correctly justified?</td><td></td></tr><tr><td>Measurement method correctly described?</td><td></td></tr></table>	☑	☑
B.6.2.4. Parameter Title:	--	**Not relevant.**	☑	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
Net quantity of electricity generated during the three most recent years in the fossil fuel fired captive power plant identified as baseline plant (P3) $EG_{CP,historic,3y}$		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.5.	--	**Not relevant.**		☑	☑
Parameter Title: Net quantity of electricity generated during the most recent three years in all power plants at the project site, generated from firing the same type(s) of biomass residues as in the project plant $EG_{historic,3y}$		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.6. Parameter Title: Quantity of fossil fuel type i combusted during the most recent three years in the captive power plant $FF_{CP,historic,3y}$	--	**Not relevant.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.7. Parameter Title: Average net efficiency of heat generation in the project plant prior to project implementation $\varepsilon_{th\_pre\ project}$	--	**Not relevant, as the project activity consists of a implementation of a new plant.**		☑	☑
		Data Checklist	Yes / No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.8. Parameter Title: Average net efficiency of electricity generation in the project plant prior to project implementation $\varepsilon_{el\_pre\ project}$	--	**Not relevant, as the project activity considers of a implementation of a new plant.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.9. Parameter Title: Average net efficiency of electricity generation in biomass residue fired power plants in the grid that fire the same type of biomass residues as the project plant. $\varepsilon_{el\_grid\ plants}$	--	**Not relevant, as only applied for scenario 11.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.10. Parameter Title: Average net energy efficiency of power / heat generation in the reference power / cogeneration plant that would use the biomass residues fired in the project plant in the absence of the project activityε el, reference plant /	2,23, 24	**See B.6.2.1**		See CAR 25	☑
		Data Checklist	Yes / No		
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
$\varepsilon_{th\_reference\ plant}$		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided?	No		
		Has this value been verified?	No		
		Choice of data correctly justified?	No		
		Measurement method correctly described?	No		
B.6.2.11. Parameter Title: Average net efficiency of electricity / heat generation in the existing power / cogeneration plant(s) fired with the same type of biomass residue at the project site ε el, existing plant / $\varepsilon_{th\_existing\ plant}$	--	**Not relevant for scenario 4.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
B.6.2.12. Parameter Title: Net quantity of heat generated during the most recent three years in all cogeneration plants at the project site, generated from firing the same type(s) of biomass residues as in the project plant $Q_{historic\ 3y}$	--	**Not relevant for scenario 4.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.13. Parameter Title: Net quantity of heat generated during the most recent three years in all boilers at the project site, generated from firing the same type(s) of biomass residues as in the project plant $Q_{biomass\ historic\ 3y}$	--	**Not relevant for scenario 4.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.14. Parameter Title: Quantity of biomass residue type k that has been fired in boilers for heat genera-tion during the most recent three years at the project site $BF_{k, Boiler, historic 3y}$	--	**Not relevant for scenario 4.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.15. Parameter Title: Energy efficiency of the biomass residue fired boiler that would be used in the ab-	2,23, 24	**See B.6.2.1**		See CAR 25	☑
		Data Checklist	Yes / No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
$\varepsilon_{boiler\ biomass}$		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided?	No		
		Has this value been verified?	No		
		Choice of data correctly justified?	No		
		Measurement method correctly described?	No		
B.6.2.16. Parameter Title: Quantity of biomass residue type k used as fuel in all installations (power plants, boilers, etc) at the project site during the most recent three years prior to the implementation of the project activity $BF_{historic,\ k,\ 3y}$	--	**Not relevant for scenario 4.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.17. Parameter Title: Moisture content of each biomass residue type k or i	--	**Not relevant, as the common use is dry biomass residue.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.2.18. Parameter Title: Net calorific values of fossil fuel type i NCV$_i$	--	**Not relevant, as no fossil fuel use.**		☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Appropriate description of parameter?			
		Source clearly referenced?			
		Correct value provided?			
		Has this value been verified?			
		Choice of data correctly justified?			
		Measurement method correctly described?			
B.6.3. *Ex-ante calculation of emission reductions*					
B.6.3.1. Are calculation tools used? If so is the data used in the tools consistent with the stated in the PDD?	2,4, 13	Some calculation tools have been used. They have been partly updated before the PDD was updated. Therefore it is not consistent yet. See B.6.4.4. b)		See CAR 14	☑
B.6.4. *Summary of the ex-ante estimation of emission reductions* *Has been considered in the previous validation protocol*					
B.7. Application of the monitoring methodology and description of the monitoring plan					
B.7.1. *Data and parameters monitored*					
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?	2,21, 22	No. The list of parameters presented in chapter B.7.1 is not considered to be complete. Corrective Action Request 26: According to the methodology ACM0006 (version 4) the following parameters which are not mentioned in the PDD yet have to be		CAR 26	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		monitored: $BF_{k,y}$: Quantity of biomass residue in the project plant $EG_{project\ plant,\ y}$: Net quantity of electricity generated in the project plant $Q_{project\ plant}$: Net quantity of heat generated in the project plant NCV_k: Net calorific value of biomass residue ε_{boiler}: Average net energy efficiency of heat generation in the boiler that would generate heat in the absence of the project activity. EC_{PJy}: On-site electricity consumption attributable to the project activity during year y. Ecoinvest should mention those parameters in the PDD with all required information according to the methodology.		
B.7.1.2. Parameter Title: Quantity of biomass residue type k combusted in the project plant during the year y $BF_{k,y}$	2,23, 24	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		See CAR 26	☑

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		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		
B.7.1.3. Parameter Title: Moisture content of the biomass residues	1,2,2 3,24	**Depending on the answer of the Clarification Request below this parameter is relevant or not relevant.**		CR 14	☑
		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?			

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		Correct reference to standards?			
		Indication of accuracy provided?			
		QA/QC procedures described?			
		QA/QC procedures appropriate?			
		Clarification Request 14:			
		The project participants should provide a document evidencing that Usina Interlagos will principally use dry biomass residues and indicate the percentage of humidity of the biomass residues used. If Usina Interlagos uses a mixture of dry and humid (wet) biomass residues, then it should be indicated the relationship between dry and humid biomass residues. In the latter case, the parameter "Moisture content of the biomass residues" are of relevance and has to be monitored.			
B.7.1.4. Parameter Title: CH4 emission factor for the combustion of biomass residues in the project plant $EF_{CH4,BF}$	--	**Not relevant, as source excluded from the project boundary.**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.5. Parameter Title: Average round trip distance (from and to) between biomass fuel supply sites and the project site AVD_y	--	**Not relevant, as no transport of biomass residues.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Correct reference to standards?			
		Indication of accuracy provided?			
		QA/QC procedures described?			
		QA/QC procedures appropriate?			
B.7.1.6. Parameter Title: Number of truck trips for the transportation of biomass. N_y	--	**Not relevant, as no transport of biomass residues.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		QA/QC procedures appropriate?			
B.7.1.7. Parameter Title: Average truck load of the trucks used for transportation of biomass. TL_y	--	**Not relevant, as no transport of biomass residues.**		☑	☑
		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?			
B.7.1.8. Parameter Title: Average CO2 emission factor for the trucks during the year y $EF_{km,CO2,y}$	--	**Not relevant, as no transport of biomass residues.**		☑	☑
		Monitoring Checklist	Yes / No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.9. Parameter Title: Mass or volume unit $FC_{TR,i,y}$	--	**Not relevant, as no transport of biomass residues.**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.10. Parameter Title: CO2 emission factor for fossil fuel type i $EF_{CO2,FF,i}$	--	**Not relevant, as no fossil fuel use.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Measurement method correctly described?			
		Correct reference to standards?			
		Indication of accuracy provided?			
		QA/QC procedures described?			
		QA/QC procedures appropriate?			
B.7.1.11. Parameter Title: CO2 emission factor of the fossil fuel type i used for heat generation in the absence the project activity $EF_{CO2,BL,heat,i}$	--	**Not relevant, as no fossil fuel use.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		QA/QC procedures described?			
		QA/QC procedures appropriate?			
B.7.1.12. Parameter Title: Quantity of fossil fuel type i combusted in the biomass residue fired power plant during the year y $FF_{project\ plant,i,y}$	--	**Not relevant, as no fossil fuel use.**		☑	☑
		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?			
B.7.1.13. Parameter Title:	--	**Not relevant, as no fossil fuel use.**		☑	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
the project site for other purposes that are attributable to the project activity during the year y $FF_{project\ site,i,y}$		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?			
B.7.1.14. Parameter Title: Quantity of steam diverted from other boilers to the project plant.	--	**Not relevant for the project.**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.15. Parameter Title: Average net efficiency of steam generation in the plant(s) from where steam is diverted to the project plant	--	**Not relevant for the project**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS			PDD in GSP	Final PDD
		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?				
B.7.1.16. Parameter Title: Net quantity of electricity generated in the project plant during the year y $EG_{project\ plant,y}$	2,4, 13, 23, 24	**See also B.7.1.1**			CAR 27	☑
		Monitoring Checklist		Yes / No		
		Title in line with methodology?		No		
		Data unit correctly expressed?		No		
		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?		N/A		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
		Corrective Action Request 27: Ecoinvest should correct the parameter title "Net quantity of electricity generated in the project plant during the year y" to the following: -Title in line with methodology: $EG_{project\ plant,y}$ -Data unit: MWh/**year** -description of the parameter: **Net** electricity of electricity generated in the project plant during the year y -Correct value has to be provided (without self-consumption, i.e. exported electricity to the grid) and mentioned at the parameter data of $EG_{project\ plant,y}$. -**Uncertainty/Accuracy level** should be indicated -QA/QC procedures should be explained in more detail (amongst others **cross-checks** should be indicated according to the methodology). - Besides the validation team recommends to Ecoinvest also to indicate the quantity of electricity used for self-consumption and to			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		tricity which is generated for self-consumption are not claimed CER credits and why not (business-as-usual in Brazil).		
B.7.1.17. Parameter Title: Net quantity of electricity generated in the fossil fuel fired captive power plant during the year y $EG_{CP,y}$	--	**Not relevant for the project as no fossil fuel use.** 	☑	☑
B.7.1.18. Parameter Title: Net quantity of electricity generated in all power units at the project site, generated	--	**Not relevant for the project as no other power units at the project site.**	☑	☑

For B.7.1.17, the following Monitoring Checklist table appears:

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?	

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
from firing the same type(s) of biomass residues as in the project plant, including the new power unit installed as part of the project activity and any previously existing units, during the year y $EG_{total,y}$		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?			
B.7.1.19. Parameter Title: Net quantity of heat generated from firing biomass in the project plant $Q_{project\ plant,y}$	2,23, 24	**See B.7.1.1**		**See CAR 26**	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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		
B.7.1.20. Parameter Title: Net quantity of heat generated in all cogeneration units at the project site, generated from firing the same type(s) of biomass residues as in the project plant, including the cogeneration unit installed as part of the project activity and any previously existing units, during the year y $Q_{total,y}$	--	**Not relevant for the project as no other cogeneration units at the project site.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.1.21. Parameter Title: Net calorific value of the fossil fuel type i NCV_i	--	**Not relevant as no use of fossil fuels.**		☑	☑
		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?			

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		Indication of accuracy provided?				
		QA/QC procedures described?				
		QA/QC procedures appropriate?				
B.7.1.22. Parameter Title: Net calorific value of biomass residue type k NCV_k	2,23, 24	**See B.7.1.1**			**See CAR 26**	☑
		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			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.1.23. Parameter Title: CH4 emission factor for uncontrolled burning of the biomass residue type k during the year y $EF_{burning,CH4,k,y}$	--	**Not relevant, as no uncontrolled burning of biomass residues.** | 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? | |	☑	☑
B.7.1.24. Parameter Title: Average net energy efficiency of heat generation in the boiler that would generate heat in the absence of the project activity ε boiler	2,23, 24	**See B.7.1.1.** | Monitoring Checklist	Yes / No | |---|---| | Title in line with methodology? | No |	**See CAR 26**	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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		
B.7.1.25. Parameter Title: Demonstration that the biomass residue type k from a specific source would continue not to be collected or utilized, e.g. by an assessment whether a market has emerged for that type of biomass residue (if yes, leakage is assumed not be ruled out) or by showing that it would still not be feasible to utilize the biomass residues for any purposes.	--	**Not relevant, as leakage does not have to be considered in this project scenario 4.**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			
		Appropriate description of parameter?			
		Source clearly referenced?			

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		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?			
B.7.1.26. Parameter Title: Quantity of biomass residues of type k that are utilized (e.g. for energy generation or as feedstock) in the defined geographical region	--	**Not relevant, as leakage does not have to be considered in this project scenario 4.**		☑	☑
		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?			

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		Correct reference to standards?			
		Indication of accuracy provided?			
		QA/QC procedures described?			
		QA/QC procedures appropriate?			
B.7.1.27. Parameter Title: Quantity of available biomass residues of type k in the region	--	**Not relevant, as leakage does not have to be considered in this project scenario 4.**		☑	☑
		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?			

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		QA/QC procedures appropriate?			
B.7.1.28. Parameter Title: Availability of a surplus of biomass residue type k (which can not be sold or utilized) at the ultimate supplier to the project and a representative sample of other suppliers in the defined geographical region.	--	**Not relevant, as leakage does not have to be considered in this project scenario 4.**		☑	☑
		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?			
B.7.1.29. Parameter Title: On-site electricity consumption attributable to the project activity during	2,13, 23,	**See B.7.1.1**		**See CAR 26**	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
the year y $EC_{PJ,y}$	24	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		
B.7.1.30. Parameter Title: Use the latest approved version of ACM0002 to calculate the grid emission factor. If the power generation capacity of the project plant is less or equal to 15 MW, project participants may use the average CO2 emission factor of the electricity system, as referred to in option	2,21, 22	See Validation protocol ACM0002.		☑	☑

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
(d) in step 1 of the baseline determination in ACM0002. $EF_{grid,y}$				
B.7.1.31. Parameter Title: Quantity of biomass residue type k combusted in all power plants at the project site during the year y Source of data: On-site measurements $BF_{all\ plants,k,y}$	--	**Not relevant, as only applicable to scenario 10.** See table below	☑	☑
B.7.1.32. Parameter Title: CO2 emission factor of the most carbon	--	**Not applicable to this project activity.**	☑	☑

For B.7.1.31, the following Monitoring Checklist appears:

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?	

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
intensive fuel used in the country $EF_{CO2,LE}$		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?			
B.7.1.33. Parameter Title: CO2 emission factor for the fossil fuel used in the captive power plant $EF_{CP,CO2}$	--	**Not applicable to this project activity.**		☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?			
		Data unit correctly expressed?			

Table 1 is applicable to ACM0006, vers 4   Page A-57

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD
		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?			
B.7.2. *Description of the monitoring plan* *Considered in the previous validation protocol*					

Table 1 is applicable to ACM0006, vers 4   Page A-58

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
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) *Considered in the previous validation protocol*				
C. Duration of the project activity / crediting period *Considered in the previous validation protocol*				
C.1. Duration of the project activity				
C.2. Choice of the crediting period and related information				
D. Environmental impacts *Considered in the previous validation protocol*				
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts				
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				
E. Stakeholders' comments *Considered in the previous validation protocol*				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.2. Summary of the comments received				
E.3. Report on how due account was taken of any comments received				
F. Annexes 1 - 4				
Annex 1: Contact Information *Considered in the previous validation protocol*				
Annex 2: Information regarding public funding *Considered in the previous validation protocol*				

Table 1 is applicable to ACM0006, vers 4 | Page A-59

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
Annex 3: Baseline information *Considered in the previous validation protocol*				
Annex 4: Monitoring information *Considered in the previous validation protocol*				

Table 1 is applicable to ACM0006, vers 4   Page A-60

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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 1: Ecoinvest should add both the exact address of the location of the project activity and the GPS dates in order to make it possible to identify the exact project site.	Table 1, A.4.1.1. **VP ACM0002-06** **and** **VP ACM0006-04**	Address and GPS coordinates were added in section A.4.1.4 , in the revised PDD version 02,	**Issue is considered to be resolved.** ☑
Corrective Action Request 2: a) The boiler type is not described correctly in the PDD. The used boiler type is: AMD-73-7GI. Ecoinvest should correct this information. b) The project participants should provide information regarding capacity, lifetime, **efficiency** of boiler, turbine (turbo-reductor), generator used in the project.	Table 1, A.4.3.2. **VP ACM0002-06** **and** **VP ACM0006-04**	a) Boiler type confirmed as AMD-73-7GI, revised in PDD version 03 b) Capacity, lifetime and efficiencies included in Table 2, in PDD version 02.	Part b) of CAR is considered to be resolved. Part a) has not been resolved yet, as information has not been corrected in the PDD**.** **After receiving all required information the issue is considered to be resolved.** ☑

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Corrective Action Request 3:	Table 1, A.4.3.5.	a) Correct value iabout produced MWh/year. Value was corrected in PDD.	**a)** The PDD (version 2) mentions a value of **127,000** MWh/year, however the project owner´s response mentions the correct value of **126,000** MWh/year. What is the right number?
a) Chapter A.4.3 mentions an amount of generated electricity of annually 694,100 MWh. This is, however, contradictionary to the information provided by calculation sheets by Ecoinvest and information received on-site. Ecoinvest should mention the right and realistic number in the PDD.	**VP ACM0002-06** and **VP ACM0006-04**	b) Main activity of Usina Interlagos is the alcohol production from sugarcane. As this is a Greenfield project, i.e., sugarcane plantation area is been prepared and developed gradually, thus will be increased annually. Sugarcane plantation began in February 2006 with 8,2 km^2 and will be gradually increased up to 210 km^2 until 2010 for the first phase implementation. In a second phase plantation area will be expanded until reach 3.6 million ton of sugarcane. Consequently the quantity of bagasse will also increase gradually.	b) It should be more clearly (better) explained in the PDD that the expansion is part of the project activity and **will claim for CO2 credits.**
b) The validation team has been informed on-site that there are concrete plans to install a second boiler and a second generator in 2010. The PDD does not mention anything about it. Ecoinvest should explain in the PDD **in detail** if			**After all requested calarifications and corrections in a satisfaction manner the issue is considered to be resolved.**
The planned expansion will make part of the project activity or not		■ Project Owner could fire all the exceed bagasse in the same boiler with very low efficiency, however, project owner decide to increase energy generation installing a new boiler-generator equipment.	☑
CO2 credits are intended to be claimed from the expansion within the existing project activity or not.		■ The expansion is part of the project activity and is claimed for CO2 credits.	
A new CDM project activity is intended to be realized in 2010.		This information were included and detailed in section B.2. of PDD version 02.\n\nAlso included in section A.2 (PDD, version 3) the fact project will claim for CO2 credits.	

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| Corrective Action Request 4:

Table 3 should be modified in the following points:

1. The format should be the same as in the guidelines demanded.

2. Instead of "Total estimated emissions" it should be changed to "Total estimated reductions" as the guidelines demand.

The project participants may claim CO2 credits still for some months in the 8th year, as in the first year there have not been claimed credits for the whole year (the credit starting period will begin on May 01, 2007). However, if this is done, it should be made a footnote mentioning the period for that CER credits are claimed in the first year and in the 8th year. | Table 1, A.4.4.1.

VP ACM0002-06 and

VP ACM0006-04. | Table format was revised as guideline in PDD version 02.

Project participants change the crediting period from 15th July 2007 to 14th July 2014 as the validation and registration process will not finish until 01st May 2007. | **Issue is considered to be re-solved.**

☑ |
| Corrective Action Request 5:

The figures provided in "Table 3" are not consistent with another table indicated later on in the PDD (chapter B.6.4.). Ecoinvest should be consistent in their emission reduction figures and the table in chapter B.6.4. has to be provided with a consecutive number. | Table 1, A.4.4.2.

VP ACM0002-06 and

VP ACM0006-04 | Table 3 and table in B.6.4 were revised with the correct values and consistency.

Table in B.6.4 was given a consecutive table reference number.

Revisions made in PDD version 02.

2008 corrected to 2014 in PDD (version 3). | Issue is considered to be partly resolved.

Concerning Table 3: Instead of "2008 (until 14th July) it has to be adjusted to "2014 (until 14th of July)".

Issue is considered to be re-solved.

☑ |

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| Corrective Action Request 6:

However, the Internal Rates of Return, which are mentioned under chapter "Investment Barriers" should be adapted to the correct numbers, which were passed during the on-site visit: the IRR without CDM is 10,9 %, with CDM 14,6 %. | Table 1, B.5.14.

VP ACM0002-06

And

Table 1, B.5.8.

VP ACM0006-04 | Internal Rates of Return (IRR) was corrected as to revised calculation of CERs, revised in PDD ver.02.

IRR without CDM is 10.9%, and with CDM is 14.8…%

Increase of almost 400 basis point revised in the PDD (version 3). | The PDD (version 2) mentions still at one place the "increase of 200 basis points". However, the increase is almost 400 basis points, as already mentioned before. The information has to be consistent through the whole PDD document; hence the necessary adjustment has to be realized by Ecoinvest.

Issue is considered to be resolved.

☑ |

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| Corrective Action Request 7:

There is not mentioned one part of the formula "project emissions", namely the CO_2 emissions from consumption of electricity (PE_{ECy}). Ecoinvest should include that parameter into the formula or explain, why it has been neglected. | Table 1, B.6.1.3.

VP ACM0002-06

and

Table 1, B.6.1.4.

VP ACM0006-04 | The only <u>Project emissions</u> from consumption of electricity are during the out of season, from middle of November to middle of April next year, to supply energy for maintenance works. It is estimated a 1,700 MWh/year consumption for the first 3 years, and 2,550 MWh/year for the next years of crediting period. This amount includes consumption during maintenance of equipments in alcohol production and cogeneration, and also office consumption. For a conservative assumption, all amounts will be accounted, although alcohol production is out side project boundaries. This information is included in PDD version 02, section B.6 for estimation of emissions reductions.

  Definition of ECPJ,y revised according to ACM0006-ver04 (PDD, version 3).

  EFgrid definition/explanation included (PDD, version 3).

Explanation below Table corrected from "exportation" to "importation" in PDD ver04. | The formula "project emissions" has been adjusted and is correct now. This issue is considered to be resolved.

However, the parameter ECPJ,y is not correctly defined in the PDD, section B.6.1. It is defined as: CO_2 emissions from on-site electricity consumption attributable to the project activity (tCO2/year). However, this parameter reflects the project energy consumption. Ecoinvest has to adjust the definition.

Besides, it is not explained EFgrid, y. in equation 3. This parameter should be explained due to the necessity of completeness.

The above mentioned issues are considered to be resolved.

The explanation below Table 7 "Project activity emission is due to exportation of grid electricity |

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			during of-harvest from ´…. in in-cluded in 2013 emissions" is not correct in the opinion of the validation team. Instead of exportation it has to be changed to importation. **Issue is considered to be resolved.** ☑
Corrective Action Request 8: The parameter "fuel consumption of each power source" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	Table 1, B.6.2.7. VP ACM0002-06	Parameter *Fi,y* included in PDD version 02.	**Issue is considered to be resolved.** ☑
Corrective Action Request 9: The parameter "emission coefficient of each fuel" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	Table 1, B.6.2.8. VP ACM0002-06	Parameter *COEFi* included in PDD version 02.	**Issue is considered to be resolved.** ☑
Corrective Action Request 10: The parameter "electricity generation of each power" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	Table 1, B. 6.2.9. VP ACM0002-06	Parameter *GEN* j/k/m,y included in PDD .	**Issue is considered to be resolved.** ☑

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Corrective Action Request 11: The parameter "electricity imports" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	Table 1, B.6.2.12 VP ACM0002-06	Parameter *GEN*j/k/ll,y IMPORTS, included in PDD.	**Issue is considered to be resolved.** ☑
Corrective Action Request 12: The parameter "CO$_2$ emission coefficient of fuels used in connected grids" with its necessary indications according to the methodology should be mentioned in Table B.6.2. of the PDD.	Table 1, B.6.2.13 VP ACM0002-06	Parameter *COEF*i/j,y IMPORTS, included in PDD.	**Issue is considered to be resolved.** ☑
Corrective Action Request 13: The value "fraction of time with low costs/must run plant at the margin" indicated in B.6.2. for 2004 is inconsistent with the value of Table 6 for 2004. The value in Table 6 should be the same as indicated in B.6.2. Ecoinvest should provide consistent data for this given parameter.	Table 1, B.6.3.3. **VP ACM0002-06** **and** **VP ACM0006-04**	Correct value for 2004 is **0.5055** as in B.6.2 Value revised in Table 6 in PDD version 02.	**Issue is considered to be resolved.** ☑

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Corrective Action Request 14:	Table 1, B.6.4.4.	a) Emissions reductions calculation were revised as per ACM0006 ver.04, by considering efficiency of a business-as-usual reference plant.	Answer may be accepted. **Issue is considered to be resolved.**
a) Ecoinvest should provide emission reductions data which are consistent for the whole PDD.	**VP ACM0002-06** and **VP ACM0006-04**		☑
b) Besides, in the estimation of emission reduction is also included the electricity for self-consumption. However, this should not generate any CO2 emission reduction credits, as practically all sugar cane plants in Brazil generate their own electricity. Thus, it is already business as usual and should not claim for CO2 credits.		b) In the ver03 of methodology ACM0006, there is a clear requirement to discount the self-consumed energy. However in the ACM0006 ver04, for scenario 4, the discount is made by the efficiency of a business-as-usual reference plant (refer to equation 13 in the ACM0006 ver04). New emissions reductions calculation is attached in Excel Sheet.	
Corrective Action Request 15:	Table 1, B.7.1.2.	The parameter "electricity supplied to the grid" is used in ACM0002-ver06 as the amount that could claim for CO2 credits. However, Interlagos project is **not** a "grid-connected electricity generation **from renewable source**" as defined in ACM0002-ver06, but a "grid-connected electricity generation **from biomass residues**" as defined in ACM0006-ver04.	Answer may be accepted. **Issue is considered to be resolved.**
It seems that the value indicated for "electricity supplied to the grid" includes the electricity used for self-consumption. It has to be considered and deducted the value for self-consumption, if determining the value of "electricity supplied to the grid". Besides, the validation team asks Ecoinvest to clarify if it has taken only the days of electricity generation (harvest time) and not the whole year (365 days).	**VP ACM0002-06**		☑
		This parameter is not used in Interlagos project, because ACM0002-ver06 is used only to determine the Emission Factor (EF_{grid} and $EF_{electricity}$) of the interconnected grid, and not to determine CO2 credits.	
		For the number of days of electricity generation was considered only the harvest time of 203 days.	

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Corrective Action Request 16: The monitoring plan does not describe how many and at which position relevant a/o backup meters will be implemented. Furthermore it does not define which values in respective from which source will be recorded and processed to the monitoring report. Furthermore the responsibilities should be drawn. In addition it should be described which data and how will be recorded and stored.	Table 1, B.7.2.1. VP ACM0002-06 and VP ACM0006-04	Monitoring Plan included in Annex 4 of PDD ver02. Detailed monitoring manual will be made during test operation.	**Issue is considered to be resolved.** ☑
Corrective Action Request 17: Information about data archiving (procedures, responsibilities) should be added in the PDD.	Table 1, B.7.2.2. **VP ACM0002-06** **and** **VP ACM0006-04**	Monitoring Plan included in Annex 4 of PDD ver02. Detailed monitoring manual will be made during test operation.	**Issue is considered to be resolved.** ☑
Corrective Action Request 18: Ecoinvest should mention all parameters in the monitoring plan that have to be monitored according to the methodology ACM0006 including its monitoring procedures and responsibilities.	Table 1, B.7.2.3. **VP ACM0002-06** and **VP ACM0006-04**	All parameters were included, that follows: EG_y: net generated energy in year y; $EC_{PJ,y}$: on-site energy consumption, grid import; $BF_{k,y}$: bagasse quantity combusted; Bagasse humidity and NCV_k: net calorific value of bagasse.	Parameters have been included in the monitoring plan of the PDD (version 2). **Issue is considered to be resolved.** ☑

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Corrective Action Request 19: Page 39 talks of "daily dispatch information" for years 2002, 2003 and 2004. However, the baseline data is referring to the most recent years 2003, 2004 and 2005. Ecoinvest should correct that.	Table 1, F.1.5. **VP ACM0002-06** and **VP ACM0006-04**	Page 39 in PDD version 01, talks about the history of acquiring power generators data from the government. The years 2002, 2003 and 2004 are the first years that Brazilian CDM project developers could acquire to calculate grid emission. For Interlagos Project, project participants will use most current available data from 2003, 2004 and 2005.	**Issue has been explained and is considered to be resolved.** ☑
Corrective Action Request 20: Annex 4 does not mention any monitoring procedures how the monitoring will look like. Ecoinvest should explain in detail (if possible with flow-charts) the type of measurement instrumentation used (amongst others flow-meters and its specifications like quantity, model, calibration procedures) and how it is measured (using default values or on-site measurements).	Table 1, F.1.9. **VP ACM0002-06** and **VP ACM0006-04**	Monitoring plan is included in Annex 4. Operation and Monitoring Procedures Manuals will be produced during test operation in March 2007. Information included in PDD (version 3): Schweitzer meters have 0.5% accuracy. Power measurement, Elektro meter has accuracy Class 0.2S (<0.3%)	Issue is considered to be partly resolved. It is not mentioned yet the accuracy (uncertainty level) of all used flow-meters. Ecoinvest should still indicate the accuracy (uncertainty level) of all used flow-meters. Uncertainty level of all used flow-meters have been added. **Issue is considered to be resolved.** ☑
Corrective Action Request 21: It should be applied the most recent version, namely version 4 of the methodology ACM0006.	Table 1, B.1.2. **VP ACM0006-04**	Methodology version corrected in PDD version 02	**Issue is considered to be resolved.** ☑

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Corrective Action Request 22:	Table 1, B.2.4.	Bagasse consumption in both Table 4 of PDD version 01, and Excel Sheet sent to auditor by email in 22 December 2006 were the same values. However there was a small change as follows:	The new excel sheet mentions different values compared to the values provided in Table 5 of the PDD (version 2) (. Besides, the values for 2014 are completely missing in the PDD (version 2). Ecoinvest should correct the values in the PDD or Excel-sheet whatever is right and add the necessary information for 2014.
The information about bagasse consumption given in Table 4 of the PDD is not consistent with the numbers provided in Excel sheets by Ecoinvest. Even two submitted excel sheets mention different numbers for "bagasse consumption". Ecoinvest should provide consistent numbers in all documents regarding the parameter "bagasse consumption".	**VP ACM0006-04**		
		2007 239,845	
		2008 428,383	Principally the value of 2012 shows a bigger difference between the excel sheet and the PDD. For the other years there have been identified some minor differences. It is not clear yet to the validation team, Ecoinvest shall correct this inconsistency.
		2009 515,554	
		2010 590,770	
		2011 650,794	
		2012 694,628	
		2013 747,180	
		2014 896,616	
		In the PDD ver02, the consumption is rated for new crediting period starting from 15th July 2007. New excel sheet will be attached to the auditor.	Corrections have been done. **Issue is considered to be resolved.**
		As explained above, excel sheet use rated values starting from 15th July 2007, and ending at 14th July 2014. Different from the PDD table 5, is used bagasse consumption in all harvest season, because is to demonstrate the variation from year to year.	☑
		Values in excel sheet are the correct one. Values revised in PDD ver04.	

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Corrective Action Request 23:	Table 1, B.2.4.	Correct value is 95,200 MWh per million ton of processed sugarcane. Value revised in PDD version 02.	If comparing the value of 95,200 MWh per million ton of processed sugarcane with the values of generated electricity given in the excel sheet "CERS 2007.01.26" provided by Ecoinvest, one may conclude that the first given value is a very rough value. The validation team recommends indicating a range between 90,000 MWh and 102,000 MWh (yearly) per million tons of processed sugarcane or a yearly average.
The information given below Table 4 indicating that "Interlagos Project will generate approximately 300 MWh yearly (for sale and internal use) per million tonnes of sugar cane processed" is not realistic and completely inconsistent with other informations provided in the PDD and by Excel calculation sheets.	**VP ACM0006-04**	Ecoinvest defer the suggestion and use the range of 90,000 MWh to 102,000 MWh revised in PDD (version 3).	
			Issue is considered to be resolved.
			☑
Corrective Action Request 24:	Table 1, B.4.2.	Corrected in PDD version 02	**Issue is considered to be resolved.**
It has not been used the correct category for biomass residues. Instead of B2 it has to be used B4. The project participants should update the correct information.	**VP ACM0006-04**		☑

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| Corrective Action Request 25:

According to the methodology ACM0006 (version 4) and project specific issues the following parameters are missing in chapter B.6.2:

Parameter available at validation:

$\varepsilon_{el, reference plant}$/ $\varepsilon_{th, reference plant}$: Average net energy efficiency of power/heat generation in the reference power/cogeneration plant that would use the biomass residues fired in the project plant in the absence of the project activity

$\varepsilon_{boiler,biomass}$: energy efficiency of the biomass residue fired boiler that would be used in the absence of the project activity.

Ecoinvest should mention the relevant parameters in the PDD. | Table 1, B.6.2.1.

VP ACM0006-04 | $\varepsilon_{el, reference plant}$: Average net energy efficiency of power generation in the reference power/ cogeneration plant that would use the biomass residues fired in the project plant in the absence of the project activity was included in PDD version 02, chapter B.6.2.

  Efficiency of reference plant was corrected in excel sheet and new CERs values revised in PDD (version 3).

  Net Calorific Value (in dry basis) is 2123 kcal/kg as in excel sheet Value revised in PDD, leading to an efficiency of 0.022 MWh el / MWh biomass (PDD, version 3).

$\varepsilon_{th, reference plant}$ and $\varepsilon_{boiler,biomass}$ were not included because the thermal efficiency of the project is a little greater than reference plant. Accordingly to ACM0006-ver04, in this case, emissions reductions or an increase due to displacement of heat is zero. $ER_{heat,y} = 0$

Value for $\varepsilon_{el, reference plant}$: updated to 0.022 in PDDver04. | The value calculated for the average net energy efficiency of power generation in the reference power plant is in the opinion of the validation team wrong. Although the PDD states, that it is used for the average generated energy per bagasse the value of 2006, namely 53.55 kWh/ton bagasse, the net energy efficiency is calculated with the less conservative value of 2005, namely 40.63 kWh/ton bagasse in order to get the value of 0.016 MWhel/MWhbiomass.

Ecoinvest should be conservative in all calculations and make the necessary adjustments.

Besides, the net calorific value of 2330 kcal/kg given in the PDD (version 2) is different to that one given in the Excel sheet.

The value applie for $\varepsilon_{el, reference plant}$ in Table B.6.2. has to be still updated to 0.022 MWh el / MWh biomass.

Issue is considered to be resolved.

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Corrective Action Request 26:	Table 1, B.7.1.1.	Parameters **included** in PDD version 02:	The values for "$BF_{k,y}$: Quantity of biomass residue in the project plant" (dry biomass residue) given in the PDD (version 2) are not completely consistent with the values provided in the Excel-sheet (CERS 2007.01.26). Ecoinvest should be consistent in all numbers.
According to the methodology ACM0006 (version 4) the following parameters which are not mentioned in the PDD yet have to be monitored:	**VP ACM0006-04**	$BF_{k,y}$: Quantity of biomass residue in the project plant	
		Quantity revised in PDD, version 3.	
$BF_{k,y}$: Quantity of biomass residue in the project plant		$EG_{project\ plant,\ y}$: Net quantity of electricity generated in the project plant	
$EG_{project\ plant,\ y}$: Net quantity of electricity generated in the project plant		NCV_k: Net calorific value of biomass residue	$EG_{project\ plant,\ y}$: o.k.
		EC_{PJy}: On-site electricity consumption attributable to the project activity during year y.	NCV_k: o.k.
$Q_{project\ plant}$: Net quantity of heat generated in the project plant			EC_{Pjy}: It is not explained in the PDD why there is no electricity consumption in 2014. The validation team recommends a short explaination.
NCV_k: Net calorific value of biomass residue		† on-site electricity consumption is due to exportation of grid electricity during of-harvest from middle November to end of April. This consumption is included as the year before consumption, i.e., the consumption from January 2014 to the beginning of the harvest in included in 2013 emissions. Explanation included in PDD, version 3.	
ε_{boiler}: Average net energy efficiency of heat generation in the boiler that would generate heat in the absence of the project activity.			Explaination is given (in PDD, version 3), but partly wrong: instead of exportation it has to be importation (see CAR 7).
EC_{PJy}: On-site electricity consumption attributable to the project activity during year y.		Correcting explanation above, term "exportation" substituted by "importation" in PDD ver04.	
Ecoinvest should mention those parameters in the PDD with all required information according to the methodology.		Parameters **not included** in PDD ver02:	Explaination why parameters $Q_{project\ plant}$ and ε_{boiler} were not included is justified and the issue is considered to be resolved.
		$Q_{project\ plant}$: Net quantity of heat generated in the project plant	
		ε_{boiler}: Average net energy efficiency of heat generation in the boiler that would generate heat in the absence of the project activity	

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		Because when project efficiency > reference plant efficiency, ERheat = 0 and do not need to monitor steam/heat generation, as well as its efficiency	**All issues are considered to be resolved.** ☑
Corrective Action Request 27: Ecoinvest should correct the parameter title "Net quantity of electricity generated in the project plant during the year y" to the following: -Title in line with methodology: EG**project plant,y** -Data unit: MWh/**year** -description of the parameter: **Net** electricity of electricity generated in the project plant during the year y -Correct value has to be provided (without self-consumption,i.e. exported electricity to the grid) and mentioned at the parameter data of EG$_{project plant,y.}$	Table 1, B.7.1.16 **VP ACM0006-04**	Data EG**project plant,y** was revised in chapter B.7.1 and correspondent equation 6 in PDD version02. Unit revised in PDD (version 3). Value is the total generated energy subtracted the consumption in the cogeneration plant itself. Discount for the business-as-usual is made from the reference plant efficiency ($\varepsilon_{el, reference plant}$). In the ACM0006-ver03 (the previous version) there is a clear definition for CO2 credits only for the exported amount of energy. In the new version 04, this discount is made by the reference plant efficiency. Uncertainty/accuracy level and QA/QC procedures are explained in Annex 4 of revised PDD ver.02. Accuracy level included in PDD (version 3). 0.5% for Schweitzer, <0.3% for Power Measurement. As explained above, there will be claimed all the energy generated subtracted by the cogeneration plant self-consumption and energy that business-as-usual reference plant could generate with the same bagasse amount as per Equation 13 in the ACM0006-ver04 as follow:	Data unit should be MWh/**year.** It is not mentioned yet the accuracy (uncertainty level) of all used flow-meters. Ecoinvest should still indicate the accuracy (uncertainty level) of all used flow-meters. **All issues are considered to be resolved.** ☑

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-**Uncertainty/Accuracy level** should be indicated. -QA/QC procedures should be explained in more detail (amongst others **cross-checks** should be indicated according to the methodology). - Besides the validation team recommends to Ecoinvest also to indicate the quantity of electricity used for self-consumption and to give a short explanation in the PDD that for that amount of electricity which is generated for self-consumption are not claimed CER credits and why not (business-as-usual in Brazil).		$$EG_y = EG_{project\_plant,y} - \varepsilon_{el,other\_plant} \cdot \frac{1}{3.6} \cdot \sum_k BF_{k,y} \cdot NCV_k$$ New CERs calculation Excel Sheet is send to auditor.	
<u>Corrective Action Request 28:</u> The monitoring plan does not describe how many and at which position relevant a/o backup meters will be implemented. Furthermore it does not define which values in respective from which source will be recorded and processed to the monitoring report. Furthermore the responsibilities should be drawn. In addition it should be described which data and how will be recorded and stored.	Table 2, B.7.2.1. VP ACM0002-06 and VP ACM0006-04	See CAR 16. Is the same CAR.	**Issue is considered to be resolved.** ☑

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The additionality discussion (concerning investment barriers) is not described in an adequate manner and should be changed in various aspects.

Corrective Action Request 29:

1. The discussion is not referring to the right excel-sheet. Instead of "FCF_Termoeletrica_Interlagos(CER)", the last to the validation submitted Cash-Flow Excel sheet is called "Fluxo de Caixa_Info_ECOINVEST_2007 01_26" and should be also mentioned like that in the PDD.

2. The statement that "the project´s IRR is very similar to the SELIC rate in effect at the time of financing …" may not be appropriated as the debt financing is based on TJLP + spread. Therefore, the IRR obtained with the CER revenues should be compared to the weighted average cost of capital (TJLP+spread and other (Selic?))

The right comparison should be made, or an argument of alternative investment could be used, and then the Selic could be presented as benchmark.

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1. New excel-sheet is send to DOE, with the document name as in PDD, i.e., "FCF_Termoeletrica_Interlagos (CER)"

2. The complete sentence is " IRR is very similar to the SELIC rate in effect at the time of financing, even though the **project is a riskier investment as compared to Brazilian government bonds."**

In other words, project participants do compared the investment in electricity generation with other investment alternatives as in government bonds, where Selic is the benchmark.

In another part of the investment barrier, is explained that: "Thus, the sugar mills tend to invest in their core business, sugar and ethanol, instead of investing in electricity generation for the grid."

Some changes in investment barriers were made in PDD ver06 to clarify explanation.

Sentence reviewed in PDD ver07.

(2) Answer 04.04.2007:

PPs decided to include the IRR discussion in the Step 2 of the additionality issue, for financial analysis, using the weighted average cost of capital (WACC) as benchmark, comparing to the project IRR. Step 3 was maintained excluding the IRR discussion as well as the Brazilian energy market discussion. Revised PDD ver.08 is send.

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1. OK

2. The sentence could be:'IRR without CERs is below the SELIC rate in effect at the time of financing'**…**and continue the same

(1) Comments 02.04.2007:

-The conclusion on page 24 of the PDD ver07 talks still of an increase of 400 basis points of the IRR. This is not true according to the new Cash-flow calculation. Information has to be adjusted.

-Institutional and cultural barriers should be revised.

-IRR even with CER credits is considerably lower than the SELIC rate. It is not clear to the validation team why an increase of 1 % of the IRR due to CER credits should substantially diminish the credit risk. It is not to understand why an IRR of 8.9 % (without CER credits) would consist an investment barrier, while an IRR of 9.9 % with CER credits) would

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| Continuation CAR 29 | | | **(4) Answer 12.04.2007:**

(1) Using Cosan and S. Martinho as a proxy for Interlagos is conservative. Because the credit risk for Interlagos would be in the maximum equal to the other two, as Interlagos is a family managed company, while Cosan and S. Martinho are companies quoted in stock exchange, undergoing periodical auditing.

(2) It is a market practice not to use Bovespa equity for some reasons described below:
- The Bovespa history is short, added that the beta calculation with Bovespa history has not statistical significant.
- High inflation rate followed by high interest rate, had created an anomaly: from the beginning of Real Plan in July 1994, the CDI return was 1.573% and Ibovespa 1.208%. This means a negative risk pre | (not consist such a barrier. The additionality discussion has to be based on stronger evidences, as e.g. a confirmation of the debitors (BNDES and others) that the revenues from CERs are crucial for their decision to give loans.

(3) Answer 09.04.2007:

The validation team does not understand the following two aspects when estimating the cost of equity (one component for the calculation of WACC):

(1) when using the Beta of Cosan and S. Martinho as a proxy for Interlagos, it should be made sure that the portion of the revenues (and the exposure) of those 3 companies to the electricity sector and their PPAs is similar in relation to the total company revenue. Can the project participants confirm this? |

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		- mium, what is an anomaly. For these reasons, we opt to use international market premium to calculate the cost of capital. (3) Please refer to http://www.bndes.gov.br/linhas/condicoes.asp The maximum limit of finance from BNDES is 80% for renewable energy.	**(**2) If using local companies to calculate Beta, does it make sense to use an international equity premium? The validation team suggests the Bovespa equity premium to be used. (3) It should be provided evidence that debt covers 80% of the total investment.
Continuation CAR 29		**(6) Answer 26.04.2007:** (1) Electricity revenues are 8% of the sugar mill revenues. Therefore this combination was judged unnecessary. (2) Sugar mills don't have ADRs in NY. (3) Contract with BNDE is actually 80%. Ecoinvest requests a copy of the BNDES contract which should contain the values.	**(5) Answer 12.04.2007:** **(**1) The response is concentrated on the credit risk only. It should be considered also the exposure of these companies to their PPAs, for example. Also, when there is used the Beta of listed companies this means not to be conservative, but rather optimistic thinking that Interlagos could perform in Bovespa similarly to those 2 listed companies. This is not the case because it is a more risky busi-

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			ness. The validation team keeps the opinion that the revenues and exposures of those 3 companies should be briefly compared to justify the Beta. Alternatively, the project participants could use a combined Beta of those 2 companies + Betas of the electricity sector in proportion to the revenues from the PPA of Interlagos.
			(2) The validation team understands the argumentation about the anomaly of Bovespa, but if the project participants prefer to use the international equity premium, then they should try to get the Betas of those 2 companies' ADRs in NY.
			(3) Even though the maximum limit of BNDES is 80%, the project participants should inform the validation team what the actual percentage of credit financing from BNDES is?

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Continuation CAR 29			**(8) Answer 27.04.2007:**	**(7) Answers 27.04.2007:**
			(3) The project participants has sent a copy of BNDES contract with the total and financed investment amount.	(1) Answer may be accepted. Issue is considered to be resolved.
				(2) Answer may be accetpted. Issue is considered to be resolved.
				(3) It should still be provided a copy of the BNDES loan contract.
				(9) Answer 28.04.2007:
				(3) The validation team can not recognize the attachment as an evidence of the loan. It should be provided a document where one can clearly see it is an official document related to the loan agreement. In addition, if I check the amount from BNDEs in the document provided, it is much less than 80% of the total funds.
			(10) Answer 07.05.2007:	
			(3) It was sent a copy of the assigned BNDES contract.	**(11a) Answer 09.05.2007:**
			"Operação Indireta – Consórcio Itaú" is also financed by BNDES, but indirectly through private bank.	(3a) By analyzing the contract of BNDES the validation team

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Continuation CAR 29		**(12) Answer 10.05.2007:**	would like to know why in the contract the investment value is 56,441 for the thermoelectric plant , but in the Cash-Flow calculation the project participants use 43,571? In the opinion of the validation team it is an inconsistency which should be adjusted in the IRR (TIR) calculation.
		(3a) The value applied in the Cash-Flow is only for equipments. BNDES contract value includes also civil engineering costs. If the amount of investment on the BNDES contract on Cash Flow is used, the IRR will decrease substantially. What is good to additionality. The validation team recommends to change the cash flow using the BNDES full-value? (3b) Project Owner is scanning the "Operação direta (BNDES)" contract to be sent. The thermoelectric plant is financed all by the "Operação Direta". (3c) I confirmed with PP: the thermo power plant is financed all by the direct financing. The proportion is 90:10. But I am still waiting for the contract copy to see if it is possible to prove that. Changing this proportion in the WACC calculation, does not change substantially.	(3b) Is the termoelectric plant financed with the Operação Indireta – Consórcio Itaú or with the Operacao direta (BNDES) about 50,797 whose contract the validation team has not received yet? The project participants are requested to send also the BNDES contract about 50,797 if it is relevant for the thermoelectric plant. **(11b) Answers 10.05.2007:** (3c) May the project participants prove with the direct financing contract (BNDES) that the proportion of credits to own resources will remain 80:20? Otherwise the project participants are requested to submit a new WACC calculation to the valida

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| Continuation CAR 29 | | **(14) Answer 16.05.2007**

(3a) New excel IRR calculation sheet "FCF_Termoeletrica_interlagos(CER) 2007.05.15" including civil engineering costs was sent to the validation team.

(3c) New WACC with financing (Pd) Debt as a percentage of total capitalization = 90% (BNDES financing rate) was calculated in PDD version 9. | tion team. On the other hand, if the project participants hold on to the BNDES contract sent on May 07, 2007, this may result in problems due to the project boundary, as sugar cane planta-tions are outside of the project boundary, but are included as part of the BNDES contract.

(13) Answers 10.05.2007:

(3a) The validation team rec-ommends to include such civil engineering costs and other start-up costs.

(3c) In the opinion of the valida-tion team it should be made a new WACC calculation even if there are only small changes in the results. |

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| Continuation CAR 29 | | **(15) Answer 17.05.2007**

(3b) The BNDES direct financing draft contract was submitted to the validation team. | **16) Answers 17.05.2007 and 18.05.2007:**

(3a) Including civil engineering costs results in an IRR with CER credits which is clearly below the WACC benchmark. Even though the additionality tool, version 3 does not require any-more step 5, mentioning the IRR with CER credits, Interlagos has to explain why they want to do a project that is not profitable and prove (by evidences) that there were done other projects by In-terlagos where an IRR with CER credits was accepted but not accepted an IRR without CER credits.

(3b) Although the BNDES direct financing draft contract is not signed yet, the validation team accepts that contract as refer-ence for the percentage of debt financing. Besides, the signed "Operação Indireta – Consórcio Itaú" contract (page 36) also in-dicates that 90 % of the project investment is credit financed. **Issue is considered to be re-solved.** ☑ |

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Continuation CAR 29			(3c) A new WACC was calculated considering a debt percentage of 90 %. Calculation was verified and may be accepted. **Issue is considered to be resolved.** ☑
		(17) Answer 18.05.2007: (3a) "Additionality aspect" as we understand from the tool, is that the PP decided doing the project despite it is not attractive without CERs revenues, as is written in the Outcome of Step 2. On the other hand, the IRR calculated by Interlagos based on the construction decision results without CER credits in 8.92% and with CERs 11.38%. WACC is 11.57%. They have similar rates. The IRR calculated the way TUV suggested to do, including the civil engineering costs, will decrease IRR without CERs to 6.71%, and with CER credits 8.99%. However, Interlagos decision was made upon the Interlagos calculation way of IRR. Add to this the fact that Interlagos is a plant under Santa Adélia group, who had successfully registered as CDM, and they know the benefits.	**(18) Answer 22.05.2007:** (3a) On the one hand, Interlagos finds it more logical to apply the IRR calculation (without civil engineering costs) as it was before TÜV´s recommendation and is saying that Interlagos decision was based on that calculation. On the other hand TÜV´s suggestion was accepted to include civil engineering costs in the IRR calculation. This new calculation was included into the PDD and the calculation sheets. That latter calculation however, is a less strong argument for additionality as the Interlagos approach.

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| Continuation CAR 29 | | **(19) Answer 24.05.2007:**

(3a) The Cash Flow was calculated on the difference between the cost of constructing a larger, more efficient thermo power plant, and the cost of what it would be in the baseline, without project activity. In the "baseline" there will be a less efficient thermo power plant, without electricity export to the grid, but only to internal consumption.
All costs (investment, operation, maintenance, etc.) and revenues (electricity sale) used in the Cash Flow, is the additional portion compared to the "baseline scenario". This was made to evaluate the feasibility of the project, as the construction of a smaller thermo power plant without electricity export to the grid, is a necessary investment in a sugarcane plant.

The difference was not the "civil engineering cost", but the cost of the "baseline scenario".

Therefore the project participants decide to choose again the IRR calculation which was the basis for the construction decision (Interlagos approach). | **(20) Answer 25.05.2007:**

(3a) The last submitted Cash-Flow (IRR) calculation sheet (FCF_Termoeletrica_Interlagos(CER) 2007.05.25 applies the Interlagos approach, resulting in an IRR with CER credits of 11,29 %, only slightly below the WACC benchmark of 11,57 %. The validation team accepts the argumentation of additionality under these circumstances bearing in mind that Interlagos is a plant under Santa Adélia group, who had already successfully registered a CDM project, and knows the benefits from CDM.

Issue is considered to be resolved. ☑ |

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The excel sheet "Fluxo de Caixa_Info_ECOINVEST_200701_26xls" should be clarified/modified in the following aspects. Corrective Action Request 30: Either the currency used should be changed from US$ to Euros or the exchange rate of 2.72 should be reduced to reflect a more realistic rate.		The CER price and exchange rate are in Euro. There was a typing mistake. Revised Cash Flow is send to DOE named as "FCF_Termoeletrica_Interlagos(CER)".	Answer may be accepted. **Issue is considered to be resolved.** ☑
In the Excel-sheet "Fluxo de Caixa_Info_ECOINVEST_200701_26.xls" there have been identified discrepancies between the CER volumes in line 12 and the Table 3 of the PDD. Corrective Action Request 31: Ecoinvest should correct the CER figures so that both sources (Excel-sheet and PDD) are alike.	Excel-sheet "Fluxo de Caixa_Info_ECOI NVEST_200701_2 6.xls"	PDD values are the correct one, as in CER calculation excel-sheet. Values were revised in Cash Flow excel-sheet. New sheet named "FCF_Termoeletrica_Interlagos(CER)" is send to DOE. Values of IRR is also revised in PDD ver06. Cash Flow was prepared before project start, considering that the project could be registered as CDM before harvest start in 2007. As well as the decision in claiming for CERs was done upon this assumption. In this way, there is no sense in changing the value for 2007 in the Cash Flow. Cash Flow was revised in conservative manner, with CER revenue included only until 2012, the first period of Kyoto Protocol. For 2012, correct value is as in Cash Flow: 64,727 tCO2/year. Value was revised in PDD ver07.	2007 and 2014 are not matching with the PDD. In the excel-sheet CERs are calculated for the whole year, in the PDD only for some months. This should be considered in the calculation of the IRR. Besides, there is a small difference also for 2012. **Issue is considered to be resolved.** ☑ **See CR 24.**

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Corrective Action Request 32 (Email 10.05.2007): The validation team noticed that PDD (version 8) does not refer to the right spreadsheet "FCF_Termoeletrica_Interlagos 2007.04.041", but to the spreadsheet before "...2007.04.02". The latter one does not apply any sensitivity analysis (which is mentioned in the PDD). Project participants are requested to correct also the IRRs of the sensitivity analysis in the PDD as they do not combine with those indicated in spreadsheet "...2007.04.041". Besides, in the spreadsheet it is assumed for the sensitivity analysis 5 % change, however in Table "Sensitivity analysis" of the PDD it is indicated 10 %. Sensitivity analysis should be consistent in all documents. Necessary changes are requested.		**Answer 16.05.2007:** Necessary changes were made in the version 9 of the PDD.	The necessary changes requested by the validation team have been realized in the last submitted PDD. **Issue is considered to be resolved.** ☑

Corrective Action Request 33 (Email 16.05.2007):
   - It should be applied and mentioned in the PDD the most recent version of the additionality tool, namely version 3.
   - Page 16 of the PDD talks of 10 % own capital. In brackets, however is mentioned twenty percent. Correction is necessary.
		Answer 17.05.2007:
		
		 PDD (version 8) has been revised.
			Revisions have been done. **Issue is considered to be resolved.** ☑

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(1) Corrective Action Request 34 (Email 17.05.2007):		(2) Answers 21.05.2007:	(3) Answer 22.05.2007:
According to information obtained by the validation team, the Brazilian government has already published the calculation for the EF from 2006 based on the dispatch data analysis, the first methodological choice. The project participants are requested to use the new EF data. Data are available on http://www.mct.gov.br/index.php/content/view/50871.html.		We (Ecoinvest) talked to Mr. Miguez, the executive secretary of Brazilian DNA, and he said that the EF in the site is not yet official. It is under public consultation. 22.05.2007: It is used the Dispatch Data Analisys OM, which is preferable as per methodology ACM0002. However, as already mentioned, the calculation and value are not yet "validated", it will go through several discussions until been an "official" data to use. In this way, we (Ecoinvest) will calculate from the data available from 2006, using the Simple Adjusted OM, which is the method the Brazilian projects has been used. This calculation is not yet done. We estimate it will be ready late June.	Although the data of 2006 is available, as Brazil has a large number of power plants and the system is very complex, the calculation of EF_{OM} demands long period to analyze the data, calculation, revision, etc. Many companies like Ecoinvest are involved in the calculation. Ecoinvest estimates that for most early at the end of June the EF will be available. For example, the calculation of EF for 2005, was finished only in August 2006, up to that date DOEs and the Brazilian DNA accepted the EF of the previous year. Under the circumstances above, the validation team accepts the EF of 2005 as long as the new EF for 2006 is not available at the time of submission of the project documents to the DNA. **Issue is considered to be resolved.** ☑

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(1) Corrective Action Request 35 (Email 25.05.2007):		(2) Answer 25.05.2007:	(3) Answer 25.05.2007:
The cash-flow calculation considers CER credits about 22,753 tCO2 for 2007 whereas the PDD mentions only 12,233 tCO2 for 2007? Besides, there is a small difference in 2012, which doesn´t affect a lot the IRR calculation. However, such inconsistencies should be better avoided. Project participants are requested to adjust the numbers.		The difference in CERs for 2007, is that in Cash Flow is considered the full year of 2007, as the decision was made last year by the project owner, and was expected to register in the beginning of this year. (4) Answer 25.05.2007: The project participants decided to change the crediting period to 15.04.2008 (start of the harvest period in 2008). Because of this, the project participants changed also the CERs calculation and Cash Flow with CERs, The new PDD version 12 has been submitted to the validation team.	The validation does not accept to consider CER credits for the whole year of 2007 as the crediting period only starts in July 2007. Project participants are requested to revise the cash-flow calculation. (5) Answer 26.05.2007: PDD version 12 and an updated Cash-Flow calculation have been submitted to the validation team. CER credits for 2007 have been excluded from the cash-flow calculation. **Issue is considered to be resolved.** ☑

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(1) Corrective Action Request 36 (Email 27.05.2007): Project participants changed the start of the crediting period to April 15, 2008. It should be indicated in the CER calculation sheet and in the emission reduction tables of the PDD (Tables 3 and 8) that 2008 it starts on April 15, 2008 and in 2015 ends on April 14. The project participants don´t mention the year 2015. Are there no CERs generated? The validation team assumes that CER credits generated in 2015 are included in the number of 2014. The project participants should indicate it separately. That means that for 2014 there are still project emissions, however not for 2015 as project emissions for 2015 are included in 2014. It should be added project emissons for 2014 in the PDD. It should be also corrected the "Value of data applied" of the relevant parameters in B.7.1..		(2) Answer 28.05.2007: In 2015 until April 14, there is no electricity generation, as is off-harvest period. There will be only the electricity import (project emission). The project participants included the off-harvest project emissions from 2014 to 2015, in the CERs of year 2014, decreasing a little the CER for this year. In doing that, there will be no emissions reductions for 2015 until April 14. Modifications were made in PDD, CER calculations and Cash Flow.	(3) Answer 28.05.2007: Off-harvest project emissions from 2014 to 2015 were included in the calculations. The validation team agrees that in 2015 occurs no electricity generation. All necessary modifications were made in PDD version 13, CER calculation excel sheet "CERS 2007 05 28" and Cashflow calculation excel sheet "FCF_Termoeletrica_Interlagos(CER) 2007.05.28". **Issue is considered to be resolved.** ☑
Clarification Request 1: Ecoinvest should add the information "Sectoral Scope 1", in order to provide complete information regarding the category.	Table 1, A.4.2.1. **VP ACM0002-06** **and** **VP ACM0006-04**	Sectorial Scope 1 was included in section A.4.2 of PDD ver 02.	**Issue is considered to be resolved.** ☑

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Clarification Request 2: However, it should be documented the fact that not more than 10 % of the sugar mills in the Centre South region have developed a similar project activity than those of Interlagos and those with a similar project activity has been realized as CDM projects.	Table 1, B.5.16. **VP ACM0002-06** and Table 1, B.5.10. **VP ACM0006-04**	This fact was included in the study of business-as-usual generation efficiency ($\varepsilon_{el,\ reference\ plant}$). See Annex 3 for detail of the study.	Project owner´s response is acceptable. **Issue is considered to be resolved.** ☑
Clarification Request 3: However, Ecoinvest should use the most up-dated IPCC data of 2006 for their calculations and information and indicate this reference correctly in the PDD.	Table 1, B.6.1.4. **VP ACM0002-06** and Table 1, B.6.1.5. **VP ACM0006-04**	IPCC data are used to calculate emission factor of the grid (EFgrid) accordingly to ACM0002-ver06, and the methodology refers to the IPCC1996. Thus, data were maintained.	The validation team accepts the answer. **The issue is considered to be resolved.** ☑
Clarification Request 4: It is not clearly specified in the PDD if it is chosen the ex-ante or ex-post vintage of OM factor. This information has to be clearly specified in the PDD.	Table 1, B.6.2.2. **VP ACM0002-06**	As the OM factor is included in table "B.6.2. Data and parameters that are available at validation" it is implied that is *ex-ante*. In the same section B.6.2 was included the following text: Project participants decided to determine emission factor for interconnected grid *ex-ante*, without annual revision. Emission factor is calculated with data for the last 3 available years: 2003, 2004, 2005.	**Issue is considered to be resolved.** ☑

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Clarification Request 5: Regarding the appropriate description it should be added "**CO2** emission factor..", regarding the justification of choice of data it is not referred to the right methodology in the opinion of the validation team. Ecoinvest should explain why it refers to the monitoring methodology ACM0006, and not to the baseline methodology of ACM0002 and it has to be explained if the parameter is calculated ex-ante or ex-post.	Table 1, B.6.2.4. **VP ACM0002-06**	To calculate emission factor for grid electricity is used the methodology ACM0002-ver06. In the Line "source of data used" it is correct, however in the line "justification…" it was completed wrong. Correction made in PDD ver02. The parameter is *ex-ante* calculated as is implied once it is included in the table in section "B.6.2. Data and parameters that are available at validation" and not B.7.1.	Necessary changes have been made. **Issue is considered to be resolved.** ☑
Clarification Request 6: 1. It should be explained why no justification of the parameter "fraction of time…" is given. Ecoinvest should add the necessary information. 2. b) It has to be especified if the parameter is determined ex-ante or ex-post.	Table 1, B.6.2.11 **VP ACM0002-06**	1. "fraction of time" is calculated accordingly to ACM0002-ver06. 2. The parameter is implied as *ex-ante* once it is included in the table in section "B.6.2. Data and parameters that are available at validation" and not "B.7.1 Data and parameters monitored".	**Issue is considered to be resolved.** ☑
Clarification Request 7: It should be indicated the accuracy (uncertainty level) of the parameter "electricity supplied to the grid".	Table 1, B.7.1.2. **VP ACM0002-06**	This parameter will not be monitored for CO2 reductions claiming, but only to cross check total generated amount. Please refer to CARs 15, 25 and 27 for further details about electricity generated, supplied to the grid.	Answer may be accepted. **Issue is considered to be resolved.** ☑

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Clarification Request 8: Information is requested which measuring method or in respective to which national or international standard the measurement will be done.	Table 1, B.7.1.2. **VP ACM0002-06**	As explained in CAR15, "electricity supplied to the grid" from the ACM0002-ver06, is not used. So, this CR does not apply.	**Issue is considered to be resolved.** ☑
Clarification Request 9: It should be mentioned in the PDD, that the project does not imply transboundary environmental impacts.	Table 1, D.1.4. **VP ACM0002-06 and** **VP ACM0006-04**	Mention included in Chapter D. Environmental Impacts.	**Issue is considered to be resolved.** ☑
Clarification Request 10: The PDD mentions that Table 4 "shows that the cogeneration project does not have an impact in processing capacity". However, one may interpret the steady increase of processing capacity (from one year to another) as the Table shows, due to the implementation of the cogeneration project activity. Ecoinvest should provide other concrete evidences showing that the cogeneration project does not imply an increase of the processing capacity and bagasse consumption.	Table 1, B .2.4. **VP ACM0006-04**	Main activity of Usina Interlagos is the alcohol production from sugarcane. As this is a Greenfield project, i.e., sugarcane plantation area is been prepared and developed gradually, thus will be increased annually. Sugarcane plantation began in February 2006 with 8,2 km^2 and will be gradually increased up to 210 km^2 until 2010 for the first phase implementation. In a second phase plantation area will be expanded until reach 3.6 million ton of sugarcane. Consequently the quantity of bagasse will also increase gradually. • Project Owner could fire all the exceed bagasse in the same boiler with very low effi	The explanation may be accepted. **The issue is considered to be resolved.** ☑

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		ciency, however, project owner decide to increase energy generation installing a new boiler-generator equipment. • The expansion is part of the project activity and is claimed for CO2 credits. This information were included and detailed in section B.2. of PDD version 02.	
Clarification Request 11: Ecoinvest should explain why electricity consumption due to the project activity is not discussed in the PDD. The validation team has identified project emissions (electricity purchase) during off-harvest period. Ecoinvest should consider such project emissions and in the case if not, explain why it does not have to be considered.	Table 1, B.3.4. **VP** **ACM0006-04**	This fact was included in the Annex 4 – Monitoring Plan procedures. Electricity consumption during of-harvest is only due to the equipments maintenance and electricity in the offices. It will be monitored and in a conservative assumption, all the imported energy will be subtracted from the CO2 credits, instead of only the energy consumption in the cogeneration plant maintenance.	Information has been amended in the PDD (version 2). **Issue is considered to be resolved.** ☑
Clarification Request 12: Ecoinvest should clearly describe the spatial boundary and be consistent in all the information given.	Table 1, B.3.7. **VP ACM0006-04**	Project boundary includes from bagasse stock to the exportation of electricity generated. Revised boundary included in Figure 4 of PDD ver02. Is included the transport from bagasse stock to the boiler. In that way is included in the boundary of Figure 4. Above Fig.4 included the phrase: "the means for transportation of biomass from stock to power plant" in PDD ver04.	Are the means of transportation really included in the project boundary as mentioned in the explanation? Figure 4 excludes transportation from the project boundary. Ecoinvest should be consistent in all information. Question has not been answered satisfactorily yet. Figure 4 excludes transportation from the project boundary; the expla

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			nation however includes means of transportation. It should be clarified in the explanations of the PDD, that only transportation from bagasse stock to the boiler is included in the project boundary, and not transportation from the sugar cane plantations to the project site. **Issue is considered to be resolved.** ☑
Clarification Request 13: It should be clearly indicated in the PDD if the bagasse consumption mentioned in Table 4 of the PDD refers to dry weight.	Table 1, B.6.2.2. **VP ACM0006-04**	It refers to wet value. Reference included in Table 5 version 02 (table 04 in ver01).	**Issue is considered to be resolved.** ☑
Clarification Request 14: The project participants should provide a document evidencing that Usina Interlagos will principally use dry biomass residues and indicate the percentage of humidity of the biomass residues used. If Usina Interlagos uses a mixture of dry and humid (wet) biomass residues, then it should be indicated the relationship between dry and humid biomass residues. In the latter case, the parameter "Moisture content of the biomass residues" are of relevance and has to be monitored.	Table 1, B.7.1.3. **VP ACM0006-04**	Usina Interlagos will use wet bagasse, and so the "moisture content of the biomass residues" will be monitored. This parameter was included in the Section "B.7.1 Data and parameters monitored"	Parameter has been included. **Issue is considered to be resolved.** ☑

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Clarification Request 15: In Figure 16 of the PDD two different colors refer to registered CDM projects. Has not been intended to use one color for CDM projects in process of registration?	2	One (green) is for already registered projects and the other (orange) is for currently in process for registration. Revision made in PDD.	**Issue is considered to be resolved.** ☑
Page 2: The PDD states that the first phase started in February 2006 with seedling planting in an 8.2 km2 area and will be gradually increased each year up to 210km2 in 2010. Clarification Request 16: It should be submitted information to the validation team, what happened at that area before. Have there been any adverse environmental effects?	2	New sugarcane plantation areas were used for other cultures or livestock farming. They are not deforestation area.	Explanation is considered adequate to the validation team. **Issue is considered to be resolved.** ☑
Page 2: It is stated an increase of 8,2 km2 to 210km2 of cultivated area in the PDD. That is equivalent to an increase of more than 25 times. Clarification Request 17: It should be provided information to the validation team if the increase of more than 25 times of the cultivated area is realistic.	2	Yes. The Increase of more than 25 times of the cultivated area is realistic.	Statement is considered adequate to the validation team. **Issue is considered to be resolved.** ☑

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Page 9: It is not clear to the validation team, what would happen without CDM project with all biomass/crushed biomass, which is left over, due to the expansion from 8 km2 to 210 km2) Clarification Request 18: The validation team should be informed what would happen with all biomass/crushed biomass if there was no CDM project.	2	As described in PDD ver04: "Project owner could fire all the exceed bagasse in the same boiler with very low efficiency, however, project owner decided to increase energy generation installing a new boiler-generator equipment. If no CDM, project owner would use a boiler with lower operation pressure and temperature, consequently lower bagasse to steam efficiency. For the first phase a smaller 15 MW generator would be sufficient to supply energy demand. For the second phase of sugarcane plantation expansion in 2010 another low efficiency boiler and lower capacity generator would be installed. Another alternative is to install the same high efficiency boiler and high capacity 40 MW generators from the start. However as the second phase sugarcane plantation area is not yet defined this could be a high risk operation. Another alternative is to sale the bagasse to other users as sugar and alcohol producer as Usina Santa Adelia, from the same group to energy use, or also for other non-energy use as hand craft.	The validation team considers the explanation as adequate. **Issue is considered to be resolved.** ☑

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Clarification Request 19:		CDM registered projects in Brazil totalize 24 projects until the 21st of February 07. Only in the Middle and South region there are 211 sugar and alcohol producers (source: annual Report: "Anuário da Cana" 2002/2003, around 300 for all country. CDM registered projects are less than 10% of total Brazilian producers. Bagasse co-generation plants which are not CDM projects, and even so produce energy for exportation to the grid are receiving government funding. Therefore, it could not be said that is already a business as usual.	The validation team considers the explaination as adequate. **Issue is considered to be resolved.** ☑
On page 23 it is mentioned the cultural barrier. Knowing that several CDM projects are registered and that some of those have produced electricity already before, and that the Brazilian sugar mill industry is innovative, please clarify how the cultural barrier applies.			
Clarification Request 20:		Bagasse to electricity transformation efficiency is really low, because there are too many processes: bagasse to heat (firing), heat transfer to transform water to steam, steam to turbine, turbine to generator. For the project the MWhelectric/MWhbagasse efficiency wil be 0.123. The reference plant efficiency 0.022 was calculated from Copersucar, a sugarcane, sugar and alcohol producers cooperative as described in annex 3.	Project owners´ response may be considered as satisfactorily. **Issue is considered to be resolved.** ☑
On page 33. annex 3, reference plant an efficiency of 2.2% seems to be too low. Please clarify.			
		Figures 15 and 16 show value of generated energy per processed sugarcane. These figures are used to separate high generation plants and search if they are CDM registered projects. The efficiency is calculated on MWhelectricity per bagasse as shown in fig. 17 and 18. Corpersucar calculation sheet is provided electronically.	

Clarification Request 21:		Interlagos project is already under implementation with operation start up planned for April 2007, and viability study was held before 2004. Thus there is no reason for analyzing actual situation. Therefore data will not be updated.	Answer is being accepted by the validation team.
Regarding institutional barriers, what is the actual market risk reduction with the new regulatory frame?			**Issue is considered to be resolved.** ☑
Clarification Request 22:		In step 3, section before step 3.a is to describe the history of energy markets in Brazil.	Validation team accepts the answers as satisfactorily.
On the Additionality Step 3, please update the data.		Besides, Interlagos project is already under implementation with operation start-up planned for April 2007. The implementation viability study was held before 2004. Thus there is no reason for analyzing actual situation. Therefore data will not be updated.	**Issue is considered to be resolved.** ☑
Clarification Request 23:		Exchange price in Europe Carbon Market in the end of 2006 was around 15 euros per CER. However project participant does not sell to market but to specific clients. 10 euros per CER is an estimation of Ecoinvest at the time of Investment Viability Study. This value is a conservative value from Ecoinvest experience.	The validation team requests an evidence that the price is realistic (another signed CERPA contract or a broker report).
Please explain or provide evidence that the price of CER per ton used in the IRR calculation is reasonable.		Price reference is as explained above the European Carbon Market: www.europeanclimateexchange.com	Comments 02.04.2007:
		Please see price for December 2008. CER price is indexed to this value. This percentage varies depending on the market. By the time Interlagos used around 70% of this price. Cost of carry should be applied also to calculate this price. The result was 10 euros.	Answer may be accepted. **Issue is considered to be resolved.** ☑

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Clarification Request 24:		15-years is the average lifetime of the equipments involved in the co-generation, and is used by project owner to evaluate investment.	Comments on April 02, 2007:
Please clarify why the cash-flow used for the IRR calculation encompasses a 15-year period.		**Answer 03.04.2007:**	It should be clarified by Ecoinvest if the IRR of 8.9 % respectively 9.9 % is calculated only until 2012 as in response of CAR 31 explained or for 15 years.
		In the last Cash Flow version, CERs were considered only until 2012 as a conservative assumption, however CERs will be included. Refer to the new Cash Flow document "FCF_Termoeletrica_Interlagos(CER) 2007.04.04.xls".	
		Answer 26.04.2007:	**Answer 15.04.2007:**
		The discussion above IRR with CERs could be excluded as the step 2, did not require that. The additionality in step 2 is that the project activity is not attractive without CERs, i.e., IRR without CERs is below the benchmark.	In the opinion of the validation team cash flow from CERs after 2012 should not be considered, as for the moment they do not have any legal basis to exist.
			Answer 27.04.2007:
			The validation team finally accepts, but not evaluates the fact, that CER credits are considered beyond 2012.
		Answer 24.05.2007:	The project participants should mention in the PDD that CER´s are included after 2012 and it should be explained why.
		Version 11 of the PDD mentions that CER credits are also considered after 2012, as PPs believe that Kyoto Protocol will be extended.	

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			Answer 25.05.2007: PDD contains explanation that CER credits are considered in the calculations beyond 2012. **Issue is considered to be re-solved.** ☑
Clarification Request 25: Please clarify why the revenues from the usual business stabilize after 2011, but the CERs revenue continue to grow after 2011. The validation team understands that both should be pegged.		Revenues did not consider the expansion planned in 2009. Revised Cash Flow is send to DOE. Investment amount for the new boiler – generator is included, as well as the revenues from electricity exportation from the new generator. Revenues from 2007 to 2009 also were revised as new electricity sale contract was closed. With these new amounts, IRR without CER is 8.9%, and with CER is 9.9 %. Values revised in PDD ver07.	Comments on April 02, 2007: Project owner's response is acceptable for the validation team. **Issue is considered to be re-solved.** ☑
Clarification Request 26: Regarding the IRR calculation sheet "FCF_Termoeletrica_Interlagos(CER) 2007.04.042", submitted on April 05, 2007 the validation team asks for clarification of the two following issues (Email from April 14, 2007): 1. In the scenarios, project participants increase 2007 revenues, and after that the growth is in the same proportion as for your basic scenario. Project participants should comment on the possibilities to have such a revenue growth still in 2007.		(1) Answer from April 26, 2007: 1. Interlagos had closed a sale for the electricity that will be generated in 2007. 2. The evolution on electricity generation is not constant because it depends on land preparation to increase sugarcane production. And the operational and maintenance costs follow the electricity generation. Interlagos is still purchasing lands to increase production. (3) Answer from April 27, 2007: 1. The electricity sales contract for 2007 has been submitted to the validation team, however	(2) Answer from April 27, 2007: 1. There should be submitted an evidence for the electricity sales contract in 2007. 2. The answer may accepted by the validation team. Information should be included in the PDD. (5) Answer from April 28, 2007 and May 17, 2007:

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2. In the basic scenario and the others as well, the evolution of revenues and costs is erratic and do not form any trendline. The project participants should comment on the reasons for ups and downs in the period?		without signatures (4) Answer from May 16, 2007: Information about erratic revenues and costs evolution was included in the PDD (version 9).	The answers from April 27, 2007 and May 16 given by the project participants were accepted by the validation team. **Issue is considered to be resolved.** ☑

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 3: Information Reference List

Reference No.	Document or Type of Information
1	On-site interview at "Usina Interlagos Cogeneration Project" by auditing team of TÜV SÜD **Validation team on-site:** 　　Johann Thaler　　　　　　　　　　　　TÜV Industrie Service GmbH TÜV SÜD Group **Interviewed persons:** 　　**Date: 14.12.2006: Headquarters at Usina Santa Adelia** 　　Norberto Bellodi, Executive Director, Usina Interlagos Ltda. 　　Jose Luis Godoy, Supervisor of Quality control, Usina Interlagos Ltda. 　　Jose Roberto Braido, Director of supplies, Usina Interlagos Ltda. 　　Idalina Spina, Coordinator of Quality control and Quality assurance, Usina Interlagos Ltda. 　　Plinio Sergio Wolpe, Accounting, Usina Interlagos Ltda. 　　Jose Braz Ernesto, Electrical Supervisor, Usina Interlagos Ltda. 　　Carlos Antonio Pita, Supervisor of steam generation, Usina Interlagos Ltda. 　　Eduardo Cesar de Lima, Assistant of Quality System, Usina Interlagos Ltda. 　　Jenny Komatsu, Chemical Engineer, Ecoinvest Carbon Brasil Ltda. 　　Johann Thaler, Auditor, TÜV-Südbrazil 　　**Date: 15.12.2006: Usina Interlagos** 　　Marlo Paulo Mori, Industrial Manager, Usina Interlagos Ltda. 　　Sergio Lober Fenegalha, Electrical Supervisor, Usina Interlagos Ltda. 　　Jaime Daniel Valenca, Process Supervisor, Usina Interlagos Ltda. 　　Jenny Komatsu, Chemical Engineer, Ecoinvest Carbon Brasil Ltda. 　　Johann Thaler, Auditor, TÜV-Südbrazil
2	Project Design Document "Usina Interlagos Cogeneration Project, version 1", Ecoinvest Carbon Brasil Ltda., December, 2006.

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Reference No.	Document or Type of Information
3	Calculation of emissions grid factor, Excel-file, submitted on December 22, 2006.
4	Calculations of generated electricity, Excel-file, submitted on December 22, 2006.
5	Technical description of the project equipment, paper copy, submitted on December 14, 2006.
6	Registry about purchase of territory, paper copy, submitted on December 14, 2006.
7	Social contract of "Usina Interlagos Ltda.", paper copy, submitted on December 14, 2006.
8	ANEEL authorization for the cogeneration project Usina Interlagos, PDF-File, submitted on December 08, 2006.
9	Cash-Flow calculation of the project (with and without CDM-credits), paper copy, submitted on December 14, 2006.
10	Contract about financing of the project, paper copy, submitted on December 14, 2006.
11	Map (including GPS dates) and address showing the location of the project site, paper copy, submitted on December 14, 2006.
12	Evolution of sugar cane quantities, paper copy, submitted on December 14, 2006.
13	Documents for determination of the quantity of generated electricity in total (subdivided in sold electricity and self-consumption), paper copy, submitted on December 14, 2006.
14	List of buyers of electricity produced at Interlagos Ltda., paper copy, submitted on December 14, 2006.
15	Plants´ information about electricity (generated, sold, purchased, sugar-cane quantities)
16	Time schedule about the different steps of the project, paper copy, submitted on December 14, 2006.
17	Training documents (Information about realized and envisaged training and List of participants), paper copy, submitted on December 14, 2006.
18	Monitoring information (flow-charts about flow-meters and measurement procedures), paper copy, submitted on December 14, 2006.
19	Installation licence, JPEG-file, submitted on December 08, 2006
20	Invitations to stakeholders, pdf-files, submitted on December 04, 2006.
21	ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" (Version 6, May 19th, 2006

Reference No.	Document or Type of Information
22	ACM0002 "Consolidated monitoring methodology for zero-emissions grid-connected electricity generation from renewable sources" (Version 6, May 19th, 2006).
23	ACM0006 "Consolidated baseline methodology for grid-connected electricity generation from biomass residues", version 4.
24	ACM0006 "Consolidated monitoring methodology for grid-connected electricity generation from biomass residues", version 4.
25	IPCC: Revised Guidelines (2006) for National Greenhouse Gas Inventories
26	IPCC: 2000, Good Practice Guidance
27	UNFCCC, CDM: Tool for the demonstration and assessment of additionality. UNFCCC, November 2005.
28	Validation and Verification Manual, IETA/World Bank (PCF), http://www.vvmanual.info
29	Electricity sales contract between Electra Comercializadora de Energia S.A. and Usina Interlagos Ltda., pdf-file, submitted on April 27, 2007.
30	BNDES contract "Operação Indireta – Consórcio Itaú", 04.09.2006, pdf-file submitted on May 07, 2007.
31	BNDES direct financing draft contract, pdf-file, submitted on May 17, 2007.
32	PROINFA, Economic Values (MME-Consulta publica Proinfa-valores economicos), pdf-file, submitted on May 17, 2007.
33	IETA, Greenhouse gas market 2006, from November 2006, pdf-file, submitted on May 22, 2007.
34	Project Design Document "Usina Interlagos Cogeneration Project, version 14, August 24, 2007", Ecoinvest Carbon Brasil Ltda., word-file, submitted on May 26, 2007.
35	Cash-flow (IRR) calculation, FCF_Termoeletrica_Interlagos(CER) 2007.05.28, excel-file, sbumitted on May 28, 2007.
36	CERs excel-sheet – CERs 2007 05 28, submitted on May 28, 2007.
37	Assembly Act (Ata da assembleia geral extraordinaria realizada em 06 de Janeiro de 2007) from January 05, 2007, pdf-file, submitted on August 24, 2007.