VALIDATION REPORT

"URUBA RENEWABLE IRRIGATION PROJECT"

REPORT NO. 2006-1448

REVISION NO. 01

DET NORSKE VERITAS

VALIDATION REPORT

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Summary:

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Uruba Renewable Irrigation Project" in Brazil on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the simplified modalities and procedures for small-scale CDM project activities and the subsequent decisions by the CDM Executive Board.

The validation consisted of the following three phases: i) a desk review of the project design documents, ii) follow-up interviews with project stakeholders and iii) the resolution of outstanding issues and the issuance of the final validation report and opinion.

In summary, it is DNV's opinion that the "Uruba Renewable Irrigation Project" as described in the revised PDD of 23 August 2006 meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the simplified baseline and monitoring methodology for the small-scale CDM project activity category I.B (AMS-I.B, version 08). Hence, DNV will request the registration of the "Uruba Renewable Irrigation Project" as a CDM project activity. Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of voluntary participation from the DNA of Brazil and the United Kingdom, including a confirmation by the DNA of Brazil that the project assists it in achieving sustainable development.

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Work carried out by: Luis Filipe Tavares, Vicente San Valero	
Work verified by: Michael Lehmann	
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Abbreviations

ANEEL	Agência Nacional de Energia Elétrica (Brazilian National Electricity Agency)
BM	Build margin
BNDES	Brazilian Bank for Development
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction
CH_4	Methane
CL	Clarification request
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DNV	Det Norske Veritas
DNA	Designated National Authority
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
IMA	Instituto do Meio Ambiente do Estado de Alagoas (Environmental Institute of Alagoas State)
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
N_2O	Nitrous oxide
NGO	Non-governmental Organisation
N-NE	North-Northeast (one of two regional grids in Brazil)
ONS	National Electric System Operator
ODA	Official Development Assistance
OM	Operating margin
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change

1 INTRODUCTION

Laginha Agro Industrial S.A. and EcoSecurities Ltd. have commissioned Det Norske Veritas Certification Ltd. (DNV) to perform a validation of the "Uruba Renewable Irrigation Project" at Uruba district, Atalaia Municipality, Alagoas State, Brazil.

This report summarises the findings of the validation of the project, performed on the basis of UNFCCC and host Party criteria for CDM projects, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation team consists of the following personnel:

Mr. Luis Filipe Tavares	DNV Rio de Janeiro	Team leader
Ms. Vicente San Valero	DNV Rio de Janeiro	CDM validator
Mr. Michael Lehmann	DNV Oslo	Energy sector expert, Technical reviewer

1.1 Validation Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan, and the project's compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of certified emission reductions (CERs).

1.2 Scope

The validation scope is defined as an independent and objective review of the project design document (PDD). The PDD is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the simplified baseline and monitoring methodology AMS-I.B. The validation team has, based on the recommendations in the Validation and Verification Manual /5/, and employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of CERs.

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

1.3 Description of Proposed CDM Project

The "Uruba Renewable Irrigation Project" involved the acquisition of new electric irrigation devices and the construction and installation of a new grid alongside the sugar cane fields. The electricity used by the new electric irrigation devices is generated by a bagasse fired combined heat and power plant of 5 MW installed at Uruba, located in Atalaia Municipality, Alagoas.

Prior to the implementation of the project, the irrigation process involved the use of diesel fuel irrigation devices. Emission reductions are claimed from replacing diesel fuel irrigation devices with electric irrigation devices.

The estimated amount of GHG emission reductions from the project is 28 644 tCO_2e during the first renewable 7-year crediting period (with the potential of being renewed twice), resulting in estimated average annual emission reductions of 4 092 tCO_2e.

2 METHODOLOGY

The validation consisted of the following three phases:

I a desk review of the project design documents;
II follow-up interviews with project stakeholders;
III the resolution of outstanding issues and the issuance of the final validation report and opinion.

In order to ensure transparency, a validation protocol was customised for the project, according to the to the Validation and Verification Manual /5/. The protocol shows, in a transparent manner, criteria (requirements), means of verification 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 Figure 1.

The completed validation protocol for the "Uruba Renewable Irrigation Project" is enclosed in Appendix A to this report.

Findings established during the validation can either be seen as a non-fulfilment of validation protocol criteria or where a risk to the fulfilment of project objectives is identified. Corrective Action Requests (CAR) are issued, where:

i) mistakes have been made with a direct influence on project results;
ii) validation protocol requirements have not been met; or
iii) there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be certified.

The term request for *Clarification* (CL) is used where additional information is needed to fully clarify an issue.

Validation Protocol Table 1: Mandatory Requirements for CDM Project Activities			
Requirement	***Reference***	***Conclusion***	***Cross reference***
The requirements the project must meet.	*Gives reference to the legislation or agreement where the requirement is found.*	*This is either acceptable based on evidence provided (**OK**), a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements or a request for **Clarification (CL)** where further clarifications are needed.*	*Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent Validation process.*

Validation Protocol Table 2: Requirement Checklist				
Checklist Question	***Reference***	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organised in seven different sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below).A request for **Clarification (CL)** is used when the validation team has identified a need for further clarification.*

Validation Protocol Table 3: Resolution of Corrective Action Requests and Requests for Clarification			
Draft report corrective action requests and requests for clarifications	***Ref. to Table 2***	***Summary of project participants' response***	***Final conclusion***
If the conclusions from the draft Validation are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification Request is explained.*	*The responses given by the project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

Figure 1 Validation protocol tables

2.1 Review of Documents

The PDD of the "João Lyra Bagasse cogeneration project" (Version 1 of September 2005) /1/ was assessed. In addition to the bagasse fired power plant Uruba, located in Atalaia Municipality, Alagoas, this PDD also included the bagasse fired power plant at Guaxuma, located in Coruripe Municipality, Alagoas. This PDD also included two components: 1) the displacement of grid electricity with electricity generated from bagasse applying AMS-I.D and 2) the replacement of diesel fuel irrigation pumps by electric pumps applying AMS-I.B. However, the project design was changed and the first component of the project was removed. Hence, a revised version PDD of the "João Lyra Bagasse cogeneration project".(Version 2 of 29 June 2006) /2/ submitted by Laginha Agro Industrial S.A. and EcoSecurities Ltd was assessed. This PDD only considered the second component: the replacement of diesel fuel irrigation pumps by electric pumps applying AMS -I.B. Finally, since the aggregated installed renewable generation capacity at Guaxuma and Urubia (including renewable generation capacity already installed at the two sites prior to the project activity) was more than 15 MW, Laginha Agro Industrial S.A. and EcoSecurities Ltd decided to separate the units of Guaxuma and Uruba and present the project in two separate PDDs. A revised PDD for the Uruba unit, titled the "Uruba Renewable Irrigation Project" (Version 1 dated 23 August 2006) was thus assessed by DNV.

Other documents, such as the Environmental Impact Assessment, the Environmental Licences and licence requirements as well as the letters sent to local stakeholders, were reviewed during the follow-up interviews in order to ensure the accuracy of the relevant information.

2.2 Follow-up Interviews

On 21 July 2006, DNV performed interviews with representatives of EcoSecurities Ltd to confirm selected information and to resolve issues identified in the document review.

The main topics of the interviews were:

- Environment licenses and legal compliance;
- Local Stakeholders consultation process;
- Additionality of the project;
- Cash flow analysis and IRR;
- Baseline emission calculations;
- Calibration requirements.

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation was to resolve any outstanding issues which needed to be clarified for DNV's positive conclusion on the project design.

The initial validation of the project identified three (03) *Corrective Action Requests* and one (01) request for *Clarification.* The project participant's response to DNV's draft validation report findings, including the submission of a revised PDD of 23 August 2006, addressed DNV's concerns to DNV's satisfaction..

To guarantee the transparency of the validation process, the concerns raised and the response provided by the project participants are summarised in chapter 3 below and documented in more detail in the validation protocol in Appendix A.

3 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

The validation findings relate to the project design as documented and described in the PDD of the "Uruba Renewable Irrigation Project" dated 23 August 2006 /3/.

3.1 Participation Requirements

The project participants are Laginha Agro Industrial S.A. and EcoSecurities Ltd. The participating Parties - Brazil as the host Party and the United Kingdom as Annex I Party - meet all relevant participation requirements.

Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of voluntary participation from the DNA of Brazil and the United Kingdom, including a confirmation by the DNA of Brazil that the project assists it in achieving sustainable development.

3.2 Project Design

The project consisted in the installation of new electric irrigations pumps, replacing old diesel fuelled irrigators, and the construction of an electric transmission grid on the sugar cane fields. The electricity used by the new electric irrigation devices is generated by a bagasse fired combined heat and power plant of 5 MW installed at Uruba, located in Atalaia Municipality, Alagoas. The normal practice in the Brazilian sugar cane industry is to install irrigations pumps powered by diesel, due to the absence of the necessary electric transmission grid.

A 7-year renewable crediting period is selected (with the potential of being renewed twice), starting on 1 January 2001.

The project is expected to bring social (employment), environmental (Environmental Control Plans) and economic benefits, thus contributing to the sustainable development objectives of the Brazilian Government.

No public funding is involved in the project, and the validation did not reveal any information that indicates that the project can be seen as a diversion of ODA funding towards Brazil.

3.3 Baseline Determination

The project applies the simplified baseline methodology for the small-scale CDM project activity category I.B. - *Mechanical energy for the user* (AMS-I.B, version 8) /6/.

AMS-I.B is applicable as the project supplies mechanical energy used on-site by the user and the aggregated installed renewable generation capacity at Uruba, including renewable generation capacity already installed prior to the project activity, is less than 15 MW.

Although the original project "João Lyra Bagasse cogeneration project" included both Guaxuma and Uruba units, the separation of this project into two separate project activities does not

represent a debundling. The "Uruba Renewable Irrigation Project" is 70 km far away from the "Guaxuma Renewable Irrigation Project".

3.4 Additionality

The additionality of the project is demonstrated by applying the barrier analysis described in Attachment A to the Appendix B of the simplified modalities and procedures for CDM small-scale project activities.

The additionality of the project is demonstrated trough the analysis of the following barriers: (a) financial/economic barriers, (b) technological barriers and (c) barrier due to prevailing practice for the three following potential baseline scenarios: i) Continuation of current activities (without investments), ii) Continuation of current activities but increasing irrigation by using diesel pumps and iii) implementation of the project bagasse power plant and use part of the electricity to power new electric irrigation pumps.

DNV's assessment of the presented barriers is as follows:

(a) *Financial/economic barriers*: DNV was able to confirm that electric irrigation demands much more money for implementation and requires more time to be set up, with investments presenting a return only in the long term. The financial market in Brazil has also some restriction for long term investments as the Brazilian Prime Interest Rate (known as SELIC) are high, making long term investments not attractive for any sugar cane producers. However, considering that the price of the electricity generated from bagasse in the project activity will reduce operation costs associated with diesel fuel irrigation, this financial benefit can be considered sufficient to overcome the presented barrier.

(b) *Technological barriers*: DNV was able to confirm that the implementation of new power plants to generate electricity for irrigation of the sugar cane fields using electric pumps in a poor region, like the agricultural area of the Alagoas State, has some restrictions considering the technical know-how necessary for construction and maintenance of a bagasse power plant and a system with electric irrigation pumps. However, as bagasse power plants had been used before the implementation of project, the presented technological barrier is not considered sufficient.

(c) *Barriers due to prevailing practice*: DNV acknowledges that it is not common practise in the Alagoas State, as demonstrated by the restricted number of sugar cane mills producing electricity to the grid, to generate electricity to be used for irrigation of sugar can fields using electricity pumps. Current practise is the irrigation using diesel fuel irrigation devices, which also was the practise at Uruba prior to the implementation of the project.

Given the barriers due to prevailing practice that the project faces, the project faces at least one of the barriers stipulated in Attachment A of the *Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activities* and it is thus sufficiently demonstrated that the project is not a likely baseline scenario.

Although the Attachment A to the Appendix B for Small Scale Projects does not require the application of step 0 of the "*Tool for the demonstration and assessment of additionality*" in order to demonstrate that CDM benefits were seriously considered in the decision to implement the project, DNV requested evidences that the CDM was seriously considered in the decision to implement the project. An analysis of the project dated of 04 October 2000, which mentioned the

benefits of the carbon credit market, was presented to demonstrate CDM benefits were considered in the decision to implement the project.

3.5 Monitoring Plan

The project applies the simplified monitoring methodology AMS-I.B.

The monitoring plan sufficiently specifies the monitoring requirements of the main project indicators. In accordance with AMS-I.B the monitoring parameters are the number of irrigation pumps, the annual operation hours and the installed capacity of each installed irrigation device. The resulting power requirement of the electric irrigation pumps is multiplied with an emission coefficient for a diesel irrigation pumps.

Details of the data to be collected, the frequency of data recording, its certainty, and format and storage location are described. The recording frequency of the data is appropriate for the project. Laginha Agro Industrial S.A. is responsible for the project management, monitoring and reporting project activities as well as for organising and training of the staff in the appropriate monitoring, measurement and reporting techniques.

3.6 Calculation of GHG Emissions

Project emissions are considered zero for this project.

Baseline emissions are calculated by multiplying the monitored power requirement of the electric irrigation pumps with the emission coefficient for diesel generator systems given in Table I.D of AMS-I.B *Mechanical energy for the user*. /6/

According to AMS-I.B, leakage should be considered if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. In order to demonstrate that the new equipment is not transferred from another activity, the final PDD includes the serial number and installation date of the irrigation pumps.

3.7 Environmental Impacts

Laginha Agro Industrial S.A. has an Environmental Operation License number 66/06 valid until 28 March 2008 for the Uruba mill.

3.8 Comments by Local Stakeholders

Local stakeholders were invited to comment on the project in accordance with the requirements of Resolution 1 of the Brazilian DNA. Comments by local stakeholders, such as the Municipal Government, the state and municipal agencies, the Brazilian forum of NGOs, neighbouring communities and the office of the attorney general, were invited. No comments were received.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

DNV published the PDD of the "João Lyra Bagasse cogeneration project" (Version 1 of September 2005) on the DNV's Climate Change web site (http://www.dnv.com/certification/ClimateChange) and Parties, stakeholders and NGOs were through the UNFCCC CDM web site invited to provide comments during a 30 days period from 16 September 2005 to 15 October 2005. No comments were received.

Since all elements of the "Uruba Renewable Irrigation Project" were already described in the PDD of the "João Lyra Bagasse cogeneration project", DNV did not consider it necessary to republish the PDD of the "Uruba Renewable Irrigation Project" and to again invite comments by Parties, stakeholders and NGOs.

5 VALIDATION OPINION

Det Norske Veritas Certification Ltd. (DNV) has performed a validation of the "Uruba Renewable Irrigation Project" at Uruba, located in Atalaia Municipality, Alagoas State, Brazil. The validation was performed on the basis of UNFCCC criteria for CDM project activities and relevant Brazilian criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project participants are Laginha Agro Industrial S.A. *and EcoSecurities Ltd. The participating Parties - Brazil as the host Party and the United Kingdom as Annex I Party - meet all relevant participation requirements.*

The "Uruba Renewable Irrigation Project" involves the acquisition of new electric irrigation devices and the construction and installation of a new grid alongside the sugar cane fields. The electricity used by the new electric irrigation devices is generated by a bagasse fired combined heat and power plant. Emission reductions are claimed from replacing diesel fuel irrigation devices with electric irrigation devices.

The project applies the simplified baseline methodology for the small-scale CDM project activity category I.B. - Mechanical energy for the user (AMS-I.B, version 08. AMS-I.B is applicable as the project supplies mechanical energy used on-site by the user and the aggregated installed renewable generation capacity at Uruba, including renewable generation capacity already installed prior to the project activity, is less than 15 MW

The baseline methodology AMS-I.B has been applied correctly and the assumptions made for the selected baseline scenario are sound. It is sufficiently demonstrated that the project is not a likely baseline scenario and that emission reductions attributable to the project are additional to any that would occur in the absence of the project activity.

The monitoring methodology AMS-I. B has been applied correctly. The monitoring plan sufficiently specifies the monitoring requirements of the main project indicators.

By displacing diesel fuel in the sugar cane field irrigation with renewable electricity, the project is in line with the current sustainable development priorities of Brazil.

Local stakeholder comments were invited according to the Brazilian DNA Resolution 1. No comment was received. Comments by Parties, stakeholders and NGOs have also been invited via the UNFCCC web-site. No comments were received.

In summary, it is DNV's opinion that the "Uruba Renewable Irrigation Project", as described in the revised and resubmitted project design document of 23 August 2006, meets all relevant UNFCCC requirements for the CDM and all relevant Brazilian criteria and correctly applies the baseline and monitoring methodology for the small-scale CDM project activity I.B (AMS-I.B, version 08). Hence, DNV will request the registration of the "Uruba Renewable Irrigation Project" as a CDM project activity.

Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of voluntary participation from the DNA of Brazil and the United Kingdom, including a confirmation by the DNA of Brazil that the project assists it in achieving sustainable development.

REFERENCES

Documents provided by the project proponent that relate directly to the project:

/1/ Laginha Agro Industrial S.A. and EcoSecurities Ltd Project Design Document for the "João Lyra Bagasse cogeneration project". Version 1 (September 2005)

/2/ Laginha Agro Industrial S.A. and EcoSecurities Ltd Project Design Document for the "João Lyra Bagasse cogeneration project". Version 2 (29 June 2006)

/3/ Laginha Agro Industrial S.A. and EcoSecurities Ltd Project Design Document for the "Uruba Renewable Irrigation Project". Version 1 (dated 23 August 2006)

/4/ João Lyra Group. Step 0 Evidence: Relatório de Viagem implementação do sistema de gestão ambiental ISSO 14001 e como negociar créditos de carbonos. (04 October 2000)

Background documents related to the design and/or methodologies employed in the design or other reference documents:

/5/ International Emission Trading Association (IETA) & the World Bank's Prototype Carbon Fund (PCF): Validation and Verification Manual. http://www.vvmanual.info

/6/ CDM Executive Board: Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories. AMS-I.B – "Mechanical energy for the user' for Type I – Renewable Energy Project, Version 08 of 03 March 2006.

/7/ CDM Executive Board: Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories: AMS-I.D –"Grid connected renewable electricity generation" for Type I – Renewable Energy Projects, Version 09 of 28 July 2006

/8/ CDM Executive Board: Attachment A to Appendix B of the "Simplified modalities and procedures for small-scale CDM project activities" - Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activities. Version 06 of 30 September 2005

Persons interviewed during the validation, or persons who contributed with other information that are not included in the documents listed above:

/9/ Luis Filipe Kopp - EcoSecurities

/10/ Marcelo Duque - EcoSecurities

/11/ Stella Walter - EcoSecurities

/12/ Pablo Fernandez - EcoSecurities

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APPENDIX A

VALIDATION PROTOCOL
FOR SMALL-SCALE CDM PROJECT ACTIVITIES

Table 1 Mandatory Requirement for Small Scale Clean Development Mechanism (CDM) Project Activities

Requirement	Reference	Conclusion	Cross Reference/ Comment
1. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3	Kyoto Protocol Art. 12.2	OK	Table 2, Section E.4.1 The PDD identifies EcoSecurities Ltd.(UK) as Annex I project participant.
2. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof	Kyoto Protocol Art. 12.2, Simplified Modalities and Procedures for Small Scale CDM Project Activities §23a	-	Table 2, Section A.3 Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written confirmation by the DNA of Brazil that the project assists in achieving sustainable development.
3. The project shall assist non-Annex I Parties in contributing to the ultimate objective of the UNFCCC	Kyoto Protocol Art. 12.2.	OK	Table 2, Section E.4.1
4. The project shall have the written approval of voluntary participation from the designated national authority of each party involved	Kyoto Protocol Art. 12.5a, Simplified Modalities and Procedures for Small Scale CDM Project Activities §23a	--	Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of voluntary participation from the DNA of the participating Parties.
5. The emission reductions should be real, measurable and give long-term benefits related to the mitigation of climate change	Kyoto Protocol Art. 12.5b	OK	Table 2, Section E.1 to E.4
6. Reduction in GHG emissions must be additional to any that would occur in absence of the project activity, i.e. a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity	Kyoto Protocol Art. 12.5.c, Simplified Modalities and Procedures for Small Scale CDM Project Activities §26	OK	Table 2, Section B.2.1
7. In case public funding from Parties included in Annex I	Decision 17/CP.7,	OK	The validation did not reveal any

Requirement	Reference	Conclusion	Cross Reference/ Comment
is used for the project activity, these Parties shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of these Parties.	CDM Modalities and Procedures Appendix B, § 2		information that indicates that the project can be seen as a diversion of ODA funding towards Brazil.
8. Parties participating in the CDM shall designate a national authority for the CDM	CDM Modalities and Procedures § 29	OK	The Brazilian designated national authority for the CDM is the Comissão Interministerial de Mudança Global do Clima. The DNA of the United Kingdom is the Department for Environment, Food and Rural Affairs.
9. The host Party and the participating Annex I Party shall be a Party to the Kyoto Protocol	CDM Modalities and Procedures § 30, 31b	OK	Brazil has ratified the Kyoto Protocol on 23 August 2002. The United Kingdom ratified the Kyoto Protocol on 31 May 2002.
10. The participating Annex I Party's assigned amount shall have been calculated and recorded	CDM Modalities and Procedures §31b	OK	The United Kingdom's assigned amount is 92% of its 1990 emissions.
11. The participating Annex I Party shall have in place a national system for estimating GHG emissions and a national registry in accordance with Kyoto Protocol Article 5 and 7	CDM Modalities and Procedures §31b	OK	The United Kingdom has in place a national registry and reports annually is most recent national GHG inventory.
12. The proposed project activity shall meet the eligibility criteria for small scale CDM project activities set out in § 6 (c) of the Marrakesh Accords and shall not be a debundled component of a larger project activity	Simplified Modalities and Procedures for Small Scale CDM Project Activities §12a,c	OK	Table 2, Section A.1
13. The project design document shall conform with the Small Scale CDM Project Design Document format	Simplified Modalities and Procedures for Small Scale CDM Project Activities, Appendix A	OK	The PDD is in line with the CDM-SSC-PDD (version 02 of 8 July 2005).
14. The proposed project activity shall confirm to one of	Simplified Modalities and	OK	Table 2, Section A.1.3, B and D

Requirement	Reference	Conclusion	Cross Reference/ Comment
the project categories defined for small scale CDM project activities and uses the simplified baseline and monitoring methodology for that project category	Procedures for Small Scale CDM Project Activities §22e		
15. Comments by local stakeholders are invited, and a summary of these provided	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22b	OK	Table 2, Section G
16. If required by the host country, an analysis of the environmental impacts of the project activity is carried out and documented	Simplified Modalities and Procedures for Small Scale CDM Project Activities §22c	OK	Table 2, Section F
17. Parties, stakeholders and UNFCCC accredited NGOs have been invited to comment on the validation requirements and comments have been made publicly available	Simplified Modalities and Procedures for Small Scale CDM Project Activities §23b,c,d	OK	The PDD "João Lyra Bagasse cogeneration project" (Version 1 of September 2005) has been published on http://www.dnv.com/certification/ClimateChange. Parties, stakeholders and NGOs have been – through the UNFCCC CDM website – invited to provide comments on the validation requirement from 16 September 2005 to 15 October 2005 No comments were received.

Table 2 Requirements Checklist

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
A. **Project Description** The project design is assessed.					
A.1. Small scale project activity It is assess whether the project qualifies as small scale CDM project activity.					
A.1.1. Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	/1/	DR	The project applies the simplified baseline methodology for selected small-scale CDM project activity category I.B. - Mechanical energy for the user (AMS-I.B, version 08). According to AMS-I.B "This category comprises renewable energy generation units" and "where generation capacity is specified, it shall be less than 15MW". Hence, the generation capacity of the project (the renewable energy generation capacity) must be less than 15 MW. The generation capacity added by the "João Lyra Bagasse cogeneration project" (Guaxuma and Uruba) is 19.312 MW (two bagasse cogeneration plants). However, the aggregated generation capacity (including the cogeneration plant installed at the two sites already before the project) is more than 15 MW and AMS-I.B requires that "To qualify as a small scale CDM project activity, the aggregate installed capacity after adding the new units...should be lower than 15 MW". The project, in its current form, does hence not qualify as small-scale CDM project activity.	~~CAR 1~~	OK
A.1.2. The small scale project activity is not a	/1/	DR	Although the original project acitivity "João Lyra		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
debundled component of a larger project activity?			Bagasse cogeneration project", which included both Guaxuma and Uruba units, the splitting of this project into two separate project activities does not represent a debundling. The "Uruba Renewable Irrigation Project" is 70 km away from "Guaxuma Renewable Irrigation Project".		
A.1.3. Does proposed project activity confirm to one of the project categories defined for small scale CDM project activities?	/1/	DR	The project is a "Mechanical energy for the user" (type I.B.) small-scale CDM projects activity as defined in the simplified modalities and procedures for small-scale CDM project activities		OK
A.2. Project Design Validation of project design focuses on the choice of technology and the design documentation of the project.					
A.2.1. Are the project's spatial (geographical) boundaries clearly defined?	/1/	DR	The project had initially three components that were located at the Uruba mill in Atalaia municipality, Laginha in União dos Palmares municipality and Guaxuma mill in Coruripe municipality, all in Alagoas State. The revised PDD considered only the site of Uruba.		OK
A.2.2. Are the project's system (components and facilities used to mitigate GHG's) boundaries clearly defined?	/1/	DR	According to AMS-I.B, version 08 of 03 March 2006, the total installed capacity of the projects shall not exceed 15 MW.		OK
A.2.3. Does the project design engineering reflect current good practices?	/1/	DR	The project design engineering reflects good practice through the use of the electric pumps for irrigation of cane fields BAU in the sugar cane industry in the Brazilian Northeast is using diesel fuelled pumps.		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
A.2.4. Will the project result in technology transfer to the host country?	/1/	DR	Not necessarily. The electric irrigation pumps are common in other regions of Brazil		OK
A.2.5. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period? Does the project make provisions for meeting training and maintenance needs?	/1/	DR	The project will require minimal additional training and project maintenance. Moreover, support from the manufacturer is assured.		OK
A.3. Contribution to Sustainable Development The project's contribution to sustainable development is assessed					
A.3.1. Will the project create other environmental or social benefits than GHG emission reductions?	/1/	DR I	Laginha Agro Industrial S.A. has several environmental initiatives on sugar cane cultivation which are linked to this project.		OK
A.3.2. Will the project create any adverse environmental or social effects?	/1/	DR	Not foreseen		OK
A.3.3. Is the project in line with sustainable development policies of the host country?	/1/	DR	Prior to the submission of this validation report to the CDM Executive Board, DNV will have to receive the written approval of voluntary participation from the DNA of Brazil, including a confirmation that the project assists it in achieving sustainable development.		
A.3.4. Is the project in line with relevant legislation and plans in the host country?	/1/	DR I	Laginha Agro Industrial S.A. has the Environmental Operation License 66/06 valid until 28 March 2008 for the Uruba mill.		OK

* MoV = Means of Verification, DR= Document Review, I= Interview

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
B. **Project Baseline** The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.					
B.1. Baseline Methodology It is assessed whether the project applies an appropriate baseline methodology.					
B.1.1. Is the selected baseline methodology in line with the baseline methodologies provided for the relevant project category?	/1/	DR	The project applies the simplified baseline methodology for the small-scale CDM project activity category I.B. - Mechanical energy for the user i(AMS-I.B, version 08)..		OK
B.1.2. Is the baseline methodology applicable to the project being considered?	/1/	DR	The aggregated generation capacity of the "João Lyra Bagasse cogeneration project" (Guaxuma and Uruba), including the cogeneration plant installed at the two sites already before the project. is more than 15 MW and AMS-I.B requires that "To qualify as a small scale CDM project activity, the aggregate installed capacity after adding the new units...should be lower than 15 MW". The project, in its current form, does hence not qualify as small-scale CDM project activity.	~~CAR 1~~	OK
B.2. Baseline Determination It is assessed whether the project activity itself is not a likely baseline scenario and whether the selected baseline represents a likely baseline scenario.					
B.2.1. Is it demonstrated that the project activity itself is not a likely baseline scenario due	/1/	DR	The additionality of the project is demonstrated by applying the barrier analysis described in		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
to the existence of one or more of the following barriers: investment barriers, technology barriers, barriers due to prevailing practice or other barriers?		I	Attachment A to the Appendix B of the simplified modalities and procedures for CDM small-scale project activities. The additionality of the project is demonstrated trough the analysis of the following barriers: (a) financial/economic barriers, (b) technological barriers and (c) barrier due to prevailing practice for the three following potential baseline scenarios: i) Continuation of current activities (without investments), ii) Continuation of current activities but increasing irrigation by using diesel pumps and iii) implementation of the project bagasse power plant and use part of the electricity to power new electric irrigation pumps. DNV's assessment of the presented barriers is as follows: (a) Financial/economic barriers: DNV was able to confirm that electric irrigation demands much more money for implementation and requires more time to be set up, with investments presenting a return only in the long term. The financial market in Brazil has also some restriction for long term investments as the Brazilian Prime Interest Rate (known as SELIC) are high, making long term investments not attractive for any sugar cane producers. However, considering that the price of the electricity generated from bagasse in the project activity will reduce operation costs associated with diesel fuel irrigation, this financial benefit can be considered sufficient to overcome the presented barrier. (b) Technological barriers: DNV was able to		

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			confirm that the implementation of new power plants to generate electricity for irrigation of the sugar cane fields using electric pumps in a poor region, like the agricultural area of the Alagoas State, has some restrictions considering the technical know-how necessary for construction and maintenance of a bagasse power plant and a system with electric irrigation pumps. However, as bagasse power plants had been used before the implementation of project, the presented technological barrier is not considered sufficient. (c) Barriers due to prevailing practice: DNV acknowledges that it is not common practise in the Alagoas State, as demonstrated by the restricted number of sugar cane mills producing electricity to the grid, to generate electricity to be used for irrigation of sugar can fields using electricity pumps. Current practise is the irrigation using diesel fuel irrigation devices, which also was the practise at Uruba prior to the implementation of the project. Given the barriers due to prevailing practice that the project faces, the project faces at least one of the barriers stipulated in Attachment A of the Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activities and it is thus sufficiently demonstrated that the project is not a likely baseline scenario. Although the Attachment A to the Appendix B for Small Scale Projects does not require the application of step 0 of the "Tool for the		

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			demonstration and assessment of additionality" in order to demonstrate that CDM benefits were seriously considered in the decision to implement the project, DNV requested evidences that the CDM was seriously considered in the decision to implement the project. An analysis of the project dated 04 October 2000, which mentioned the benefits of the carbon credit market, was presented to demonstrate CDM benefits were considered in the decision to implement the project.		
B.2.2. Is the application of the baseline methodology and the discussion and determination of the chosen baseline transparent and conservative?	/1/	DR	See B.1.2		OK
B.2.3. Are relevant national and/or sectoral policies and circumstances taken into account?	/1/	DR	Yes		OK
B.2.4. Is the baseline selection compatible with the available data?	/1/	DR	Yes		OK
B.2.5. Does the selected baseline represent the most likely scenario describing what would have occurred in absence of the project activity?	/1/	DR	Yes		OK
C. **Duration of the Project / Crediting Period** It is assessed whether the temporary boundaries of the project are clearly defined.					
C.1.1. Are the project's starting date and operational lifetime clearly defined?	/1/	DR	The starting date of the project activity is September 2000, considering the start-up of the Uruba unit.		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
C.1.2. Is the assumed crediting time clearly defined (renewable crediting period of seven years with two possible renewals or fixed crediting period of 10 years with no renewal)?	/1/	DR	A renewable 7-year crediting period is selected, starting on 1 January 2001. The expected operational lifetime of the project is 21 years.		OK
***D.* Monitoring Plan** The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed.					
D.1. Monitoring Methodology It is assessed whether the project applies an appropriate monitoring methodology.					
D.1.1. Is the selected monitoring methodology in line with the monitoring methodologies provided for the relevant project category?	/1/	DR	The project applies the monitoring methodology AMS-I.B.		OK
D.1.2. Is the monitoring methodology applicable to the project being considered?	/1/	DR	The baseline emissions calculation is to be established according to the paragraph 6(a) of AMS-I.B which is based on the diesel fuel displaced annually which is calculated through the multiplication of the capacity of the irrigation devices times the hours of operation per year times the emission factor for diesel generator systems (table I.D.1 of the AMS-I.D). DNV requests the inclusion of the operation hours, capacity and number of the irrigation pumps in the monitoring plan.	~~CAR 2~~	OK
D.1.3. Is the application of the monitoring methodology transparent?	/1/	DR	Details of the data to be collected, the frequency of data recording, its certainty, and format and		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			storage location are described. The recording frequency of the data is appropriate for the project. Laginha Agro Industrial S.A. is responsible for the project management, monitoring and reporting project activities as well as for organising and training of the staff in the appropriate monitoring, measurement and reporting techniques		
D.1.4. Will the monitoring methodology give opportunity for real measurements of achieved emission reductions?	/1/	DR	See D.1.2		
D.2. Monitoring of Project Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.2.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?	/1/	DR	The project consists only of electric irrigation pumps powered by renewable (bagasse) generation plants and no project emissions are foreseen.		OK
D.3. Monitoring of Leakage If applicable, it is assessed whether the monitoring plan provides for reliable and complete leakage data over time.					
D.3.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	/1/	DR	According to the chosen methodologies, leakage should be considered if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. In order to clearly identify the new	~~CAR 3~~	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			equipments (devices), the serial numbers and installation dates of the electric irrigation devices are requested.		
D.3.2. Are the choices of leakage indicators reasonable?	/1//3/	DR	See D.3.1		OK
D.3.3. Will it be possible to monitor / measure the specified leakage indicators?	/1//3/	DR	See D.3.1		OK
D.3.4. Will the indicators give opportunity for real measurements of leakage effects?	/1//3/	DR	See D.3.1		OK
D.4. Monitoring of Baseline Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.4.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining baseline emissions during the crediting period?	/1/		The parameters established by the methodology are the number of irrigation pumps times annual operation hours and the emission coefficient for diesel fuel. Details of the data to be collected, the frequency of data recording, its certainty, and format and storage location are described. The recording frequency of the data is appropriate for the project. Laginha Agro Industrial S.A. is responsible for the project management, monitoring and reporting project activities as well as for organising and training of the staff in the appropriate monitoring, measurement and reporting techniques		OK
D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	/1/	DR	See B.2.2		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
D.4.3. Will it be possible to monitor / measure the specified baseline indicators?	/1/	DR	See B.2.2		OK
D.4.4. Will the indicators give opportunity for real measurements of baseline emissions?	/1/	DR	See B.2.2		OK
D.5. Project Management Planning It is checked that project implementation is properly prepared for and that critical arrangements are addressed.					
D.5.1. Is the authority and responsibility of project management clearly described?	/1/	DR I	Project management authority and responsibility are clearly described.		OK
D.5.2. Is the authority and responsibility for registration monitoring measurement and reporting clearly described?	/1/	DR I	Laginha Agro Industrial S.A. is responsible for the registration, measurement, reporting and archiving of monitoring data. Laginha Agro Industrial S.A. has appointed a specialist team responsible for energy conservation, and has an Environmental Management System certified as ISO 14001.		OK
D.5.3. Are procedures identified for training of monitoring personnel?	/1/	DR I	Laginha Agro Industrial S.A. is responsible for the project management, monitoring and reporting project activities as well as for organising and training of the staff in the appropriate monitoring, measurement and reporting techniques.		OK
D.5.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	/1/	DR I	See D.5.3.		OK
D.5.5. Are procedures identified for calibration of monitoring equipment?	/1/	DR I	See D.5.3.		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
D.5.6. Are procedures identified for maintenance of monitoring equipment and installations?	/1/	DR I	See D.5.3.		OK
D.5.7. Are procedures identified for monitoring, measurements and reporting?	/1/	DR I	See D.5.3.		OK
D.5.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	/1/	DR I	See D.5.2.		OK
D.5.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	/1/	DR I	See D.5.2.		OK
D.5.10. Are procedures identified for internal audits of GHG project compliance with operational requirements as applicable?	/1/	DR I	See D.5.3.		OK
D.5.11. Are procedures identified for project performance reviews?	/1/	DR I	See D.5.3.		OK
D.5.12. Are procedures identified for corrective actions?	/1/	DR I	See D.5.3.		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
E. **Calculation of GHG emission** It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.					
E.1. Project GHG Emissions The validation of ex-ante estimated project GHG emissions focuses on transparency and completeness of calculations.					
E.1.1. Are all aspects related to direct and indirect project emissions captured in the project design?	/1/	DR	The project consists only on electric irrigation pumps powered by renewable bagasse co-generation plants and no project emissions are foreseen.		OK
E.2. Leakage It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed and estimated ex-ante.					
E.2.1. Are leakage calculation required for the selected project category and if yes, are the relevant leakage effects assessed?	/2/	DR	According to the chosen methodologies, leakage should be considered if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. In order to clearly identify the new equipments (devices), the serial numbers and installation dates of the electric irrigation devices are requested.	~~CAR 3~~	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
E.2.2. Are potential leakage effects properly accounted for in the calculations (if applicable)?	/1//3/	DR	See E.2.1		OK
E.2.3. Do the methodologies for calculating leakage comply with existing good practice (if applicable)?	/1//3/	DR	See E.2.1		OK
E.2.4. Are the calculations documented in a complete and transparent manner and (if applicable)?	/1//3/	DR	See E.2.1		OK
E.2.5. Have conservative assumptions been used (if applicable)?	/1//3/	DR	See E.2.1		OK
E.2.6. Are uncertainties in the leakage estimates properly addressed (if applicable)?	/1//3/	DR	See E.2.1		OK
E.3. Baseline GHG Emissions The validation of ex-ante estimated baseline GHG emissions focuses on transparency and completeness of calculations.					
E.3.1. Are the baseline emission boundaries clearly defined and do they sufficiently cover sources for baseline emissions?	/1/	DR	The baseline emission includes orginally the two plants located in the Uruba mill in Atalaia municipality and the Guaxuma mill in Coruripe municipality, all in Alagoas State. The revised PDD considered only the site Uruba.		OK
E.3.2. Are all aspects related to direct and indirect baseline emissions captured in the project design?	/1/	DR	Yes		OK
E.3.3. Have all relevant greenhouse gases and sources been evaluated?	/1/	DR	The project considers only emission reductions related to CO_2 emitted by the diesel irrigation pumps displaced by electric pumps powered by		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
			renewable energy (bagasse).		
E.3.4. Do the methodologies for calculating baseline emissions comply with existing good practice?	/1/	DR	See D.1.2		OK
E.3.5. Are the calculations documented in a complete and transparent manner?	/1/	DR	See E.3.4		OK
E.3.6. Have conservative assumptions been used?	/1/	DR	See B.2.2.		OK
E.3.7. Are uncertainties in the baseline emissions estimates properly addressed?	/1/	DR	See B.2.2		OK
E.4. Emission Reductions Validation of ex-ante estimated emission reductions.					
E.4.1. Will the project result in fewer GHG emissions than the baseline case?	/1/	DR	The project is expected to reduce CO_2 emissions to the extent of 28 644 tCO2e during the first renewable 7-year crediting period.		OK
***F.* Environmental Impacts** It is assessed whether environmental impacts of the project are sufficiently addressed.					
F.1.1. Does host country legislation require an analysis of the environmental impacts of the project activity?	/1/	DR I	Laginha Agro Industrial S.A. has an Environmental Operation License number 66/06 valid until 28 March 2008 for the Uruba mill.		OK
F.1.2. Does the project comply with environmental legislation in the host country?	/1/	DR	See F.1.1		OK
F.1.3. Will the project create any adverse environmental effects?	/1/	DR	See F.1.1		OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl.	Final Concl.
F.1.4. Have environmental impacts been identified and addressed in the PDD?	/1/	DR	See F.1.1		OK
G. **Comments by Local Stakeholder** Validation of the local stakeholder consultation process.					
G.1.1. Have relevant stakeholders been consulted?	/1/	DR I	Local stakeholders were invited to comment on the project in accordance with the requirements of Resolution 1 of the Brazilian DNA. Comments by local stakeholders, such as the Municipal Government, the state and municipal agencies, the Brazilian forum of NGOs, neighbouring communities and the office of the attorney general, were invited. The comments sent by the local stakeholders should be sent to DNV.	~~CL 1~~	OK
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	/1/	DR	See G.1.1		OK
G.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/	DR	See G.1.1		OK
G.1.4. Is a summary of the comments received provided?	/1/	DR	See G.1.1		OK
G.1.5. Has due account been taken of any comments received?	/1/	DR	See G.1.1		OK

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report corrective action requests and requests for clarification	Ref. to Table 2	Summary of project participants' response	Final conclusion
CAR 1 The aggregated generation capacity of the "João Lyra Bagasse cogeneration project" (Guaxuma and Uruba), including the cogeneration plant installed at the two sites already before the project. is more than 15 MW and AMS-I.B requires that "To qualify as a small scale CDM project activity, the aggregate installed capacity after adding the new units...should be lower than 15 MW". The project, in its current form, does hence not qualify as small-scale CDM project activity.	A.1.1 B.1.2	The two units Guaxuma and Uruba included in the "João Lyra Bagasse cogeneration project" have been separated and are now presented as two separate project activities., i.e. "Guaxuma Renewable Irrigation Project" and the "Uruba Renewable Irrigation Project".	AMS-I.B is applicable to the "Uruba Renewable Irrigation Project" as the project supplies mechanical energy used on-site by the user and the aggregated installed renewable generation capacity at Uruba, including renewable generation capacity already installed prior to the project activity, is less than 15 MW. Although the original project acitivity "João Lyra Bagasse cogeneration project", which included both Guaxuma and Uruba units, the splitting of this project into two separate project activities does not represent a debundling. The "Uruba Renewable Irrigation Project" is 70 km away from "Guaxuma Renewable Irrigation Project". This CAR is therefore closed.
CAR 2 The baseline emissions calculation is to be established according to the paragraph 6(a) of AMS-I.B which is based on the diesel fuel displaced annually and which is calculated through the multiplication of the capacity of the irrigation devices times the hours of operation per year times the emission factor for diesel generator systems (table I.D.1 of the AMS-I.D). DNV requests the inclusion of	D.1.2	The PDD was modified in order to attend this request.	The revised PDD evidences on section D.3 Table 6, the monitoring parameters according to the AMS-I.D. This CAR is therefore closed.

Draft report corrective action requests and requests for clarification	Ref. to Table 2	Summary of project participants' response	Final conclusion
the operation hours, capacity and number of the irrigation pumps in the monitoring plan.			
CAR 3 According to the chosen methodologies, leakage should be considered if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. In order to clearly identify the new equipments (devices), the serial numbers and installation dates of the electric irrigation devices are requested.	D.3.1 E.2.1	The PDD was modified in order to clarify this issue. In order to be transparent and conservative, the purchase year has been used to evidence the new equipment..	The PDD was revised (section B.2.2) to DNV's satisfaction. This CAR is therefore closed
CL 1 Local stakeholders were invited to comment on the project in accordance with the requirements of Resolution 1 of the Brazilian DNA. Comments by local stakeholders, such as the Municipal Government, the state and municipal agencies, the Brazilian forum of NGOs, neighbouring communities and the office of the attorney general, were invited. The comments sent by the local stakeholders should be sent to DNV	G.1.1	To date, no comments have been received.	This CL is considered closed

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