
VALIDATION REPORT

Balrampur Chini Mills Limited

BCML HAIDERGARH BAGASSE CO-GENERATION PROJECT (INDIA)

SGS Climate Change Programme

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Summary

SGS India Pvt. Ltd., an affiliate of SGS United Kingdom Ltd. has made a validation of the CDM project activity "BCML Haidergarh Bagasse Co-generation Project (India)" by Balrampur Chini Mills Limited in Haidergarh, Uttar Pradesh state in India, 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 rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The scope of validation is the independent and objective review of the project design document, baseline study and monitoring plan and other relevant document of the project. The information in this document is reviewed against the criteria defined in the Marrakech Accords (Decision 17) and the Kyoto Protocol (Article 12) and subsequent guidance from the CDM Executive Board.

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

The first output of the validation process is a list of Corrective Actions Requests and New Information Requests (CAR and NIR), presented in Annex 2 of this document. Taking into account this output, the project proponent revised its project design document.

Subject:		
CDM validation		Indexing terms
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Technical review		
Mr. – Marco vander Linden	<input checked="" type="checkbox"/>	No distribution without permission from the Client or responsible organisational unit
Authorized signatory		
M. van der Linden	<input type="checkbox"/>	Limited distribution
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO ₂	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EIA	Environment Impact Assessment
GHG	Green House Gas(es)
MWh	Mega watt hour
I	Interview
IPCC	Intergovernmental Panel on Climate Change
ISHC	International Stakeholder Consultation
kWh	Kilo watt hour
MNES	Ministry of Non Conventional Energy Sources
MoEF	Ministry of Environment and Forest
MoV	Means of Verification
MP	Monitoring Plan
MT	Metric Tonne
NIR	New Information Request
PDD	Project Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention for Climate Change
UPPCB	Uttar Pradesh Pollution Control Board

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1. Introduction

1.1 Objective

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

1.2 Scope

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

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

1.3 GHG Project Description

The proposed CDM project activity is bagasse based power generation project for captive use in sugar manufacturing unit; located at Haidergarh, Uttar Pradesh state in India. The starting date of project activity was 28-10-2002 and the project is operating.

Baseline Scenario:

The electricity generated by project activity would have otherwise been generated by Northern Regional grid which is predominantly fossil fuel based.

With Project Scenario:

The project activity is generating electricity using bagasse as fuel. There is no associated anthropogenic emission of green house gases as the project activity will not use any amount of fossil fuel i.e. coal in power plant. The project displaces the power that would have otherwise been generated by Northern Regional grid which consists of power plants operating on a mix of hydro, nuclear and fossil fuels but are primarily fossil fuel based.

Leakage:

This was the new installation and the energy generating equipment was not transferred from another activity or the existing equipment was not transferred to another activity. So, no leakage is considered.

Environmental & Social Impacts:

According to Local assessor, there is no negative environmental and social impact reported or seen from project activity during the site visit or during the local stakeholder consultation carried out as a

validation protocol.

1.4 The names and roles of the validation team members

Name	Supplier	Role
Shivananda Shetty	SGS India	Team Leader / Lead Auditor
Sanjeev Kumar	SGS India	Assessor
Pankaj Mohan	SGS India	Local Assessor
Marco vander Linden	SGS the Netherlands	Technical reviewer

2. Methodology

2.1 Review of CDM-PDD and additional documentation

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

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

2.2 Use of the validation protocol

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

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

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

Checklist Question	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
<i>The various requirements are linked to checklist questions the project should meet.</i>	<i>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.</i>	<i>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.</i>	<i>This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.</i>

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

2.3 Findings

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

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

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

CAR

is issued, where:

- I. mistakes have been made with a direct influence on project results;
- II. validation protocol requirements have not been met; or
- III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

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

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

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

2.4 Internal quality control

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

3. Determination Findings

3.1 Participation requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26 August 2002. Initially, no Letter of Approval was provided and a CAR2 was raised. There was no Host country approval provided so this was kept open. CAR2 was open.

Annex 1 Party has been identified in the PDD and there was no letter of approval provided so CAR1 was raised. The project proponent provided the 'Letter of Approval' from a Annex I party and copy was obtained. The same was scanned and hence CAR1 was closed out.

3.2 Baseline selection and additionality

Originally the project had submitted a new methodology (NM0030 and NM0030-rev) for consideration by the Board. This methodology was rejected in EB16 but elements were used in the consolidated methodology ACM0002. However this methodology did not allow for biomass based projects. Following acceptance of the Board of ACM0006, the PP submitted a request for the amendment based on version 2 of ACM0006 in May 2006 (AM_REV_0013). This amendment was not accepted by the Board (EB 25). One of the reasons for the rejection was that the suggested amendment took "a very specific approach towards calculating EGy, which is not fully consistent with the broad applicability conditions of this methodology". The Methodologies Panel suggested that "Project participants may also consider to only claim emission reductions for using a more efficient boiler in the project case than in the reference plant (and thus not accounting for emission reductions due to a higher capacity and increased electricity / steam generation) and for using biomass that would otherwise be dumped and/or left to decay – thus not claiming emission reductions for biomass quantities that are diverted from feedstock uses to the project plant". Based on the conclusion of the Meth Panel, the project has applied the ACM0006 version 4 identifying two baseline scenarios. The selected scenarios are scenario 3 & Scenario 4.

Scenario 4 of ACM0006 refers to the use of a more efficient boiler compared to a reference plant which would have been built in the absence of the project. This was confirmed from the minutes of board meeting where the board members wanted to install sugar plant along with captive generation only. Under scenario 4, it is assumed that the project plant and the reference plant would be using the same quantity of biomass and therefore there would be no biomass that would have been dumped or left to decay. . Based on the suggestion of the Meth Panel as given above, it was accepted that a second scenario (scenario 3) was used by the project to account for extra biomass used in the project compared to the baseline scenario. As per scenario 4, the reference plant and the project plant should have the same thermal capacity. However it is assumed that under the baseline scenario, the reference plant would only have operated during the crushing season. The extra biomass consumption is therefore the result of operating the project plant for more days during the year. This extra biomass will be brought in from other plants. In line with the suggestion from the Meth Panel and to be conservative, no emission reductions will be claimed for the avoided emissions of the extra biomass that otherwise would have been dumped.

To show that the project activity itself is not the baseline, an Investment Barrier is used to demonstrate additionality together with technological & other barriers. The Investment, Technological, & other barriers mentioned in PDD were not clearly described and without any documentary evidences so CAR9 was raised. The project proponent replied by providing the documentary evidences for the Investment barrier, Technological barrier & other barriers. The documentary evidences provided by the Project proponent were reviewed. The documentary evidence provided is the Board note in which CDM consideration was discussed. This also contains the communication with the bank for the loan as well. The other documentary evidence was provided as financing details of the project. These were cross checked from the order copies of the power plant and it was found to be OK. The next

documentary evidence was provided by the project proponent as Bank rejection letter for the loan applied by the project proponent. This was also verified by seeing the original copy of application and subsequent reply by the bank for the rejection which included an assessment of the project, view on the sugar market and the bank's overall exposure to commodities sector. This was considered as major Investment barrier. All the other documentary evidences provided for Technological & Other barriers were also desk reviewed by the local assessor and found to be in order. The PDD was also rephrased. This was accepted and hence CAR9 was closed out.

The project was started on 28th October 2002 and it is operational. A CAR8 was raised to clarify about step 0 i.e. starting date of project activity. The project proponent replied by providing documentary evidence for starting date of project activity. This was reviewed by the local assessor and found to be in line with the letter showed during site visit along with the photographs. PDD was rephrased for starting date of project activity. The Project proponent submitted the new methodology NM0030 before 31st December 2005 which was later rejected by EB. Since the methodology was submitted by another DOE, this was confirmed from the UNFCCC website. The evidence was accepted and hence CAR8 was closed out.

Common practice analysis is not transparent in PDD and documentary evidences for table B.5 of PDD were also missing so CAR10 was raised. The project proponent replied by providing the documentary evidences and hard copy of the documents. The project proponent also told that out of 114 plants only 5 have High pressure boilers and all of them are under CDM only. These were verified by the local assessor and hard copy provided was also reviewed and found to be OK. Hence CAR10 was closed out.

Based on the evidences, calculations and the findings above, it was concluded that the project activity was not a likely baseline scenario and hence additional to any which would have been used in the absence of project activity.

3.3 Application of Baseline methodology and calculation of emission factors

The project has applied the Approved consolidated methodology for grid connected Electricity Generation from biomass residues ACM0006 version 4. It is a green field project and there was no power plant before installation of this plant in Balrampur chini mills Limited, Haidergarh Unit.

As discussed in section 3.2, the emission reductions have been determined by using two scenarios i.e. scenario 3 & Scenario 4 respectively. In the absence of project activity the reference plant would have generated that amount of electricity which is needed for captive use only. The amount of electricity generated would have been with low efficiency system due to which the biomass residue consumption will be more. The extra amount of biomass residue generated by the project proponent would have otherwise be left to decay or uncontrolled burning. This extra generation from using this extra biomass is exported to grid. There is no project emission related to usage of fossil fuel in power plant. The emission reductions are calculated as per selected scenarios.

Egy depends quantum of bagasse residues which would have been combusted in the reference plant in absence of the HCM project activity during the year y'. This would be the conservative approach to determine the emission reductions as the amount of biomass combusted in reference plant will be higher to generate the electricity. With the same amount of biomass the electricity generation will be higher due to high efficiency of the project activity.

Under scenario 4, a reference plant would have been installed in the absence of project activity. In accordance with the methodology, the efficiency of the reference plant is calculated. This calculation is based on the assumption that the reference plant would have been constructed with low pressure boiler and low electrical efficiency. The data along with the calculations were provided and checked.

A CAR4 was raised to clarify about the baseline emissions mentioned in the PDD. The project proponent rephrased the PDD and mentioned about the baseline emissions clearly. The proofs for the

same were also submitted and they were desk reviewed by the assessor and found to be OK. Hence, CAR4 was closed out.

The excel sheet of emission reductions was missing so to get it CAR5 was raised. The project proponent replied by providing the excel sheet of the calculation and it was checked by the assessor. The assessor felt that they are claiming for 3MW more electricity generation so this was again asked why they are doing this. The project proponent replied that the boiler installed was having capacity to generate more so new 3 MW plant was installed one year later. The certificate from the electrical safety inspector was checked to get the proof of the NOC. The pollution control board people had also not raised any queries as the boiler capacity was same. This was accepted and hence CAR5 was closed out.

The emission factor for the northern grid was mentioned as 915.71 in the PDD which was not substantiated with the documentary proofs and Excel sheet as well so CAR6 was raised. The project proponent replied by saying that the emission factor was calculated based on NREB Annual report and Performance review of thermal power plants and proofs are also provided for the same. Based on the available data it was discussed that the most conservative data available should have been used which would be the CEA data. The project participant accepted and made the necessary changes in the revised PDD and the emission factor was reduced to 0.7604. This was calculated as per ACM0002 taking average of three years of OM and current year BM. This is calculated ex-ante and will be fixed for whole crediting period. The excel sheet is revised as per new emission factor 0.7604. The annual emission reductions have also reduced from 70372.8 tonnes CO₂e / year to 58439.4 tonnes CO₂e / year. This was accepted and the proofs were verified by the hard copy of the data and found to be OK. This was accepted and hence CAR6 was closed out.

A CAR7 was raised to get the proof for Zero leakage. The project proponent replied by telling that the project activity will use the bagasse available from its own manufacturing facility. There is quantum of bagasse available in Uttar Pradesh and this is not harnessed till yet. The supporting document was also provided which was reviewed by local assessor and found to be in order and this was accepted. Hence CAR7 was closed out.

3.4 Application of Monitoring methodology and Monitoring Plan

The present CDM project activity uses monitoring methodology as described in ACM0006 version 04 for "Consolidated Baseline methodology for grid connected electricity generation from biomass residues" as per CDM project activities. The data to be collected in order to monitor emissions from the project activity is detailed in the project design document and the desk review showed that the monitoring plan is OK.

A CAR11 was raised to know why the PDD is not mentioning about data retrieval, Instruments used and remarks/comments. The project proponent replied by revising the PDD and mentioning about the data retrieval, Instrument used and remarks as well. This was accepted and hence CAR11 was closed out.

A NIR12 was raised to know why the project emissions are not been considered in the monitoring plan. The project proponent replied by telling that there will be no usage of fossil fuel in the project activity and the same is supported by the letter from the supplier which states that there is no provision of usage of fossil fuel in the boiler. This was verified by the local assessor during site visit as there is no provision of firing fossil fuel in the boiler. The letter was also verified with the original copy. This was accepted and hence CAR13 was closed out.

NIR13 was raised to know about non-monitoring of leakage in monitoring plan. The project proponent replied by providing the parameters that will be monitored and leakage if any will be deducted from the baseline emissions. This was accepted and hence NIR13 was closed out.

NIR14 was raised to get clarity on QA/QC procedures. The project proponent clarified that the QA/QC

procedures have been defined as per methodology in revised PDD. This was accepted and verified with the methodology. Hence NIR14 was closed out.

3.5 *Project design*

The Project Design Document (PDD) was designed as per version 2 of guidelines laid for preparing PDD of large scale CDM project activity hence the format of the present PDD was checked against it.

The project was listed for comments on the UNFCCC website from 08-09-2006 till 07-10-2006. No comment was received during the subsequent period of web hosting.

CAR3 was raised to get the clarification on the project boundary which was not clearly described in the PDD. The project proponent replied by clearly describing the project boundary and the same was also checked during the site visit. The project is under construction stage so this can also be verified during verification stage. This was accepted and hence CAR3 was closed out.

The PDD was not following the project template correctly, Date & version number was missing so CAR18 was raised for the same. The project proponent provided the date & version number of the PDD in rephrased PDD so CAR18 was closed out.

NIR19 was raised to get the clarification on turbines of 20.25 MW & 3MW. 3 MW turbines were installed in year 2004. The project proponent replied by providing the consents of UPERC for 20MW and Electrical safety for 3MW. This was reviewed and found to be OK hence NIR19 was closed out.

NIR20 was raised to get the specifications of technology used. The project proponent provided the specification copies provided by the respective suppliers. These were cross checked with original copies. This was accepted and hence NIR20 was closed out.

NIR21 was raised to know that the technology will not be changed during the entire crediting period. The project proponent replied by providing the documentary evidence for the same and was verified with original copy of letter. Which was accepted and Hence NIR21 was closed out.

3.6 *Environmental Impacts*

The project proponent has obtained the consent to operate from the Uttar-Pradesh pollution control board.

A NIR15 was raised to get the proof of EIA is carried out as described in the PDD. The project proponent replied by providing the copy of EIA. This was checked and accepted. Hence NIR15 was closed out.

3.7 *Local stakeholder comments*

There was no information available on NOC received from stakeholders mentioned in PDD and media used to invite comments. NIR16 and NIR17 were raised seeking clarification on the issue. Responding to this client informed that the representatives of the village community were contacted on one to one basis. This was verified by the local assessor through meetings with some representatives during site visit. No adverse comment was received. NOC from UPPCB, UPERC, UPPCL & PPA was provided by the client. PDD was rephrased and hence NIR 16 and NIR17 were closed out.

Stakeholder consultation process is not required by regulations/laws in the host country. The client obtained "Consent to establish and operate" from State Pollution Control Board which is an indication of regulatory acceptance. The host country approval has been accorded to project activity by Ministry of Environment and Forests, the host country approval confirms that the project leads to sustainable development in India (annex4). These documents were desk reviewed and found to be OK.

4. Comments by Parties, Stakeholders and NGOs

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

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

The PDD and the monitoring plan for this project were made available on the SGS website <http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=139> and were open for comments from 8th September 2006 to 7th October 2006. Comments were invited through the UNFCCC CDM homepage.

4.2 Compilation of all comments received

The project was up loaded for International stakeholder consultation (ISHC) for a period of 30 days and received one comment.

Comment 1		19-09-06 10:05am
Name: rohit	City:	
Organisation:	Country:	

4.3 Explanation of how comments have been taken into account

One comment was received. There was no question so it was discarded.

Local stakeholder consultation was taken up as a validation protocol by the validator. It was found that there was no negative environmental impact reported or seen by the local assessor. The project activity helped them economically and also helped in providing good infrastructure facilities to the local people like roads etc. This project activity will help in reducing the power cuts in the area as told by local stakeholders. Overall the project activity has provided positive impacts to the environment and social development.

5. Validation opinion

SGS has performed a validation of the project “BCML Haidergarh Bagasse Co-generation Project (India) at Haidergarh Chini Mills limited, Haidergarh India”. The validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project will hence be recommended by SGS for registration with the UNFCCC.

SGS has received confirmation by the host Party that the project activity assists it in achieving sustainable development.

By utilizing bagasse for generation of electricity, the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the Investment barrier, 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. If the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions.

The validation is based on the information made available to SGS and the engagement conditions detailed in the report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence SGS can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

6. List of persons interviewed

Date	Name	Position	Short description of subject discussed
05-10-2006	Mr. Anil Gupta	Sr. General Manager (Power Plant)	Project proponents view on project activity and CDM funds. Technical description of project activity and baseline and data monitoring for project activity
06-10-2006	Mr. C M Baghwan	Senior Engineer (Power Plant)	Project boundary & Monitoring plan discussion.
06-10-2006	Mr. Gurdeep Singh	Farmer	Local stakeholder consultation
06-10-2006	Mr. Bajrang B Singh	Farmer	Local stakeholder consultation
06-10-2006	Mr. Awdesb Singh	Farmer	Local stakeholder consultation

7. Document references

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

- /1/ HCA letter given by MoEF, Government of India
- /2/ Modalities of communication
- /3/ PDD version1 dated 07-07-2006 (webhosted)
- /6/ PDD version 2 dated 30-01-2007 (Present)

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

- /1/ Pollution clearance certificate
- /2/ Power purchase agreement
- /3/ Proof of CDM consideration
- /4/ Turbine Purchase order
- /5/ Boiler purchase order
- /6/ Historic power generation data
- /7/ UPERC guideline for transmission line cost sharing
- /8/ UPPCL farmer compensation
- /9/ Excel sheet for baseline calculations
- /10/ Grid calculation supporting
- /11/ Boiler supplier letter for no fossil fuel usage
- /12/ Start date proof
- /13/ Proofs of data mentioned in barrier due to prevailing practices
- /14/ EIA copy
- /15/ Technology will not be changed- letter from project proponent.

Annex 1 Local assessment checklist

Project Specific criteria to be confirmed by Local Assessor

Questions be defined by team leader, Answer and Objective Evidence / Source of information / Persons Interviewed to be completed by Local Assessor; Compliance to be reviewed by Team Leader.

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Specifications mentioned in PDD for the CDM project activity.		PDD	Purchase orders of Boiler and turbine received from the project proponent mentioning the specification mentioned in the PDD.	Y	Y
Proof of calculation of Emission reduction mentioned in PDD		PDD	The excel sheet provided was checked and found that the excel sheet was not in order so modified and provided again. This was checked and found to be in order mentioning all the formulas used.	Y	Y
Fossil fuel co firing may be done or not.		PDD	The project proponent clarified that no fossil fuel will be co fired in the boiler and same was also supported by the letter from supplier. This was also verified during site visit by the local assessor.	Y	Y
Investment Barrier was not providing the proof of the barrier as mentioned in PDD.		PDD	The project proponent provided the proofs of the Investment barrier as loan rejection letter by the bank and also provided the loan proof which were cross verified by the local assessor and found to be OK.	Y	Y
Project boundary was not clearly described in PDD.		PDD	The project boundary is now clearly defined in revised PDD. This was also checked by local assessor during site visit.	Y	Y
Start date was not clearly mentioned in PDD.		PDD	Proof of start date is provided by the project proponent which was verified by the local assessor during site visit.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Monitoring Plan mentioned to be checked during site visit		PDD	The project activity is in operation so the physical verification was possible and this was verified during site visit. The monitoring plan of PDD was discussed at site and it was concluded that the project proponent will take care in implementing the final monitoring plan and also maintain the proper records of the same.	Y	Y
The datas mentioned in PDD were not clear and formula mentioned was also not clear to be discussed during site visit.		PDD	The historic data mentioned in the PDD was cross checked with the historical data and the formula mentioned was also discussed and found that it is taken from the methodology. It was also rephrased in PDD and is now more clear and easily understandable.	Y	Y
Copy of EIA is required to be obtained during site visit.		PDD	Proof of EIA is obtained from project proponent in the form of copy of the report.	Y	Y
NOC from Pollution control board		PDD	As the project activity is the new project activity and the consent to operate was obtained by the project proponent. This was checked during site visit.	Y	Y
PPA with UPPCL to be obtained.		PDD	Copy of PPA provided by the project proponent was cross checked and found to be OK.	Y	Y

Annex 2 Validation Protocol

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

REQUIREMENT	MoV	Ref	Comment	Draft finding	Final Conc I
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	DR	PDD	The project would assist Annex-1 Party/ies through the sale of CERs. Copy of Annex-1 party letter of approval needs to be provided.	CAR1	OK CAR1 closed.
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	DR	PDD	Copy of letter of approval from Indian DNA needs to be provided.	CAR2	OK CAR2 closed
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects		UNFCCC	India ratified the Kyoto Protocol on 26 th August 2002 and is allowed to participate. (http://unfccc.int/parties_and_observers/parties/items/2109.php)	OK	OK
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario	DR	PDD	The project activity result in reduction of GHG emissions as it uses Baggase as fuel for the generation of steam in the boilers which in turn results in generation of electricity.	OK	OK
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available		UNFCCC	The project is open for comments on the UNFCCC website from 08-09-2006 to 07-10-2006. http://www.sgsqualitynet.com/tradeassurance/ccp/projects/project.php?id=139	OK	OK
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance	DR	PDD	Pending CARs / NIRs	Pending	OK
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR	PDD	No ODA is utilized to be checked at site visit.	Site visit	OK

REQUIREMENT	MoV	Ref	Comment	Draft finding	Final Conc I
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?			Not Applicable	N/A	OK
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects			Not Applicable	N/A	OK
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment			Pending Closure of CARs / NIRs	Pending	OK
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?			Pending closure of CARs / NIRs	Pending	OK

Table 2 Baseline methodology(ies) (Ref: PDD Section B and Annex 3 and AM)

CHECKLIST QUESTION	Ref.	MoV *	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology	PDD	DR	The project meet all the applicability criteria listed in the methodology.	OK	OK
2.2 Is the project boundary consistent with the approved methodology	PDD	DR	The project boundary is not clear in the PDD.	CAR3	OK CAR3 closed
2.3 Are the baseline emissions determined in accordance with the methodology described	PDD	DR	The baseline emissions are not clearly determined in the PDD. The values mentioned in the PDD needs to be substantiated with the proofs for the same. The excel sheet to be provided by the project proponent. The emission factor determined for the grid needs to be substantiated with the documentary proofs and excel sheet as well.	CAR4 CAR5 CAR6	OK CAR4 closed OK CAR5 closed OK CAR6 closed

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.4 Are the project emissions determined in accordance with the methodology described	PDD	DR	The project emissions are not considered in PDD. To be checked at site visit.	Site visit	OK
2.5 Is the leakage op the project activity determined in accordance with the methodology described	PDD	DR	No leakage is considered. Proof for the same needs to be submitted.	CAR7	OK CAR7 closed
2.6 Are the emission reductions determined in accordance with the methodology described	PDD	DR	Pending CARs	Pending CARs	OK

Table 3 Additionality (Ref: PDD Section B5 and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Does the PDD follow all the steps required in the methodology to determine the additionality	PDD	DR	Yes, the PDD follow all the steps required in the methodology to determine the additionality.	OK	OK
3.2 Is the discussion on the additionality clear and have all assumptions been supported by transparent and documented evidence	PDD	DR	Documented evidences are to be provided by the Client for step 0. In Sub step 3a Investment barrier, Technological barrier and other barriers mentioned are not clear. Documentary evidence needs to be provided by the client. Common practice analysis is not transparent i.e. step 4a is not clear. Provide documentary evidence of the table B.5 mentioned in PDD.	CAR8 CAR9 CAR10	OK CAR8 closed OK CAR9 closed OK CAR10 closed

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD	DR	The baseline selected represents the most likely baseline scenario among the possible scenarios. The baseline is the generation of power in the existing and / or new grid connected power plants.	OK	OK
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	PDD	DR	Pending CARs / NIRs	Pending	OK

Table 4 Monitoring methodology (PDD Section B6 and AM)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the applicability criteria listed in the monitoring methodology	PDD	DR	Yes, the PDD meet all the applicability criteria	OK	OK
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology	PDD	DR	The baseline emission is not monitored as per monitoring methodology. The monitoring does not mentions about data retrieval, instrument used, and Remarks/ Comments.	CAR11	OK CAR11 closed
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology	PDD	DR	There is no project emissions considered due to the project activity. Proof to be submitted for fossil fuel to be used or not.	NIR12	OK NIR12 closed
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology	PDD	DR	No leakage is considered documentary evidence for the same to be provided by client.	NIR13	OK NIR13 closed
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology	PDD	DR	QA / QC procedures are not mentioned in some places in monitoring plan.	NIR14	OK NIR14 closed

Table 5 Monitoring plan (PDD Annex 4)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD	DR	The project proponent claims that the project leads to sustainable development and environmental impacts are minimal. Pending CAR2.	Pending	OK
Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?			Not Applicable	N/A	OK
Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?			Not Applicable	N/A	OK
Will it be possible to monitor the specified sustainable development indicators?			Not applicable	N/A	OK
Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD	DR	Pending closure of CAR2 (Host country Approval)	Pending	OK
5.2 Project Management Planning					
Is the authority and responsibility of project management clearly described?	PDD	DR	The authority and responsibility of project management is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	Authority and responsibility for registration, monitoring, measurement is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for training of monitoring personnel?	PDD	DR	Training requirements for the project activity is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	Procedure for emergency preparedness is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for calibration of monitoring equipment?	PDD	DR	Yes, the calibration of monitoring equipments is clearly mentioned is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	Procedure for maintenance of monitoring equipments and installations is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for monitoring, measurements and reporting?	PDD	DR	The procedure for monitoring measurement and reporting is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	Day to day record handling procedure is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	Procedure for possible monitoring data adjustments and uncertainties is mentioned in section B.7.2 and referred in Annex4 of PDD..	OK	OK
Are procedures identified for review of reported results/data?	PDD	DR	Procedure for review of reported results is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	Procedure for internal audit is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	Procedure for performance review of Data before submission for verification internally and externally is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK
Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	PDD	DR	Procedures for corrective actions to provide more accurate future monitoring and reporting is mentioned in section B.7.2 and referred in Annex4 of PDD.	OK	OK

Table 6 Environmental Impacts (Ref PDD Section D and relevant local legislation)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	The analysis of environmental impacts are sufficiently described	OK	OK
Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	Project proponent got the EIA done. Proof to be submitted.	NIR15	OK NIR15 closed
Will the project create any adverse environmental effects?	PDD	DR	No, the project does not create any adverse environmental effects.	OK	OK
Are transboundary environmental impacts considered in the analysis?	PDD	DR	The transboundary environmental impacts are considered in the analysis described.	OK	OK
Have identified environmental impacts been addressed in the project design?	PDD	DR	Identified environmental impacts has been addressed in PDD	OK	OK
Does the project comply with environmental legislation in the host country?	PDD	DR	The project complies with the environmental legislation in the host country.	OK	OK

Table 7 Comments by local stakeholders (Ref PDD Section E)

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	List of stakeholders consulted is provided in the PDD. Documentary evidence needs to be provided.	NIR16	OK NIR16 closed
Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	Appropriate media been used to invite comments from local stakeholders. Documentary evidence needs to be provided.	NIR17	OK NIR17 closed
If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	Stakeholder consultation process is not required as per law. It was carried out as per CDM requirements.	OK	OK
Is a summary of the stakeholder comments received provided?	PDD	DR	Summary of stakeholder comments is clearly mentioned in PDD	OK	OK
Has due account been taken of any stakeholder comments received?	PDD	DR	Due account of stakeholder comments mentioned in PDD clearly.	OK	OK

TABLE 8 OTHER REQUIREMENTS

CHECKLIST QUESTION	Ref.	Mo v*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	The project does not apply the PDD template correctly. Date and version missing on page 2 section A.1 of PDD.	CAR18	OK CAR18 close d
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Pending CARs / NIRs	Pending	OK
8.2 Technology to be employed					
Does the project design engineering reflect current good practices?	PDD	DR	The project design engineering reflects current good practices. The project proponent has installed 20.25MW turbo generator and another of 3 MW later. Provide documentary evidences	CAR19	OK CAR19 close d
Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	The project uses a state of art technology. Provide evidence for the specifications of the technology used.	NIR20	OK NIR20 close d
Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	Not likely to be changed during the crediting period. Documentary evidence needs to be provided for the same.	NIR21	OK NIR21 close d
Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR	Training requirement is mentioned in the PDD clearly.	OK	OK
Duration of the Project/ Crediting Period					
Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	Project starting date is mentioned clearly in the PDD. Operational lifetime is clearly mentioned.	OK	OK

CHECKLIST QUESTION	Ref.	Mo V*	COMMENTS	Draft Concl	Final Concl
Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	The crediting time is clearly defined as fixed and it is 10 years. The start date for crediting period will be from 01/11/2003.	OK	OK
Does the project's operational lifetime exceed the crediting period	PDD	DR	The projects operational life time (20 years) exceeds the crediting period (10 years).	OK	OK

Annex 3 FINDINGS OVERVIEW

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

Description of table:

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

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

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

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
1	CAR	Annex-1 party letter of approval needs to be provided.	1.1
Date: 30 th January 2007 [Comment Client] The 'Supportive-1: Annex-1 party letter' has been provided.			
Date: 1 st March 2007 [Pankaj Mohan] [Comment Local Assessor] Annex-1 party letter received and found to be OK. CAR01 could be closed out.			
Date: 5 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR01 closed out.			

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
2	CAR	Letter of approval from Indian DNA needs to be provided.	1.2
Date: 30 th January 2007 [Comment Client] The 'Supportive-2: Letter of approval from Indian DNA' is yet to be provided.			
Date: 1 st March 2007 [Pankaj Mohan] [Comment Local Assessor] Indian DNA Approval not received yet.			
Date: 30 th March 2007 [Comment Client] The 'Supportive-2: Letter of approval from Indian DNA' is provided.			
Date: 30 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR2 closed.			

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
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3	CAR	Project boundary is not clear	2.2
Date: 30 th January 2007			
[Comment Client] The project boundary has been defined clearly in the Revised PDD-Version 02.			
Date: 1 st March 2007 [Pankaj Mohan]			
[Comment Local Assessor] Revised PDD – Version 02 mentions the project boundary clearly. This is accepted and hence CAR03 could be closed out.			
Date: 5 th March 2007 [Sanjeev Kumar]			
[Acceptance and close out] OK CAR03 closed out.			

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
4	CAR	The baseline emissions are not clearly determined in the PDD. The values mentioned in the PDD needs to be substantiated with the proofs for the same.	2.3
Date: 30 th January 2007			
[Comment Client] The computation of baseline emissions has been explained to the Validator during site visit. The same has also been elaborated in the Revised PDD-Version 02. Documentary evidences for all the values used in the computation of baseline emissions have been provided as in 'Supportive-3: Data values for baseline emission computations'.			
Date: 5 th March 2007 [Pankaj Mohan]			
[Comment Local Assessor] Revised PDD elaborates the baseline emission calculations. It is claiming for 3MW which was installed later is not clear. Supportive -3 received and checked. CAR04 could not be closed out.			
Date: 17 th March 2007			
[Comment Client] The steam output of the boiler of the power plant has a capacity to generate more than 20MW power output. Therefore in order to utilise the steam (which otherwise would remain unutilised), the project activity entailed addition of a 3MW capacity Steam Turbine and Generator to the existing 20MW Steam Turbine and Generator of the Power Plant, which generates an average of 2.5MW of power. The 3MW Steam Turbine and Generator was installed on November, 04. The same has been reflected in the emission reduction calculations.			
Date: 20-3-2007 [Pankaj Mohan]			
[Comment Local Assessor] The explanation is accepted and CAR4 could be closed out.			
Date: 20-3-2007 [Sanjeev Kumar]			
[Acceptance and close out] OK CAR4 closed out			

Date:03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
5	CAR	The excel sheet for emission reductions to be provided by the project proponent.	2.3
Date: 30 th January 2007			
[Comment Client] The excel sheet for emission reductions has been provided.			
Date: 5 th March 2007 [Pankaj Mohan]			
[Comment Local Assessor] The excel sheet provided is checked. It is not clear that the CER for 3MW installed later is also claimed or not. Hence CAR05 could not be closed out.			
Date: 17 th March 2007			
[Comment Client] The steam output of the boiler of the power plant has a capacity to generate more than 20MW power output. Therefore in order to utilise the steam (which otherwise would remain unutilised), the project activity entailed addition of a 3MW capacity Steam Turbine and			

Generator to the existing 20MW Steam Turbine and Generator of the Power Plant, which generates an average of 2.5MW of power. The 3MW Steam Turbine and Generator was installed on November, 04. The same has been reflected in the emission reduction calculations.

Date: 20-3-2007 [Pankaj Mohan]

[Comment Local Assessor] The explanation is accepted and CAR5 could be closed out.

Date: 20-3-2007 [Sanjeev Kumar]

[Acceptance and close out] OK CAR5 closed out

Date:03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
6	CAR	The emission factor determined for the grid needs to be substantiated with the documentary proofs and excel sheet as well.	2.3

Date: 30th January 2007

[Comment Client] The computation of Northern Regional Grid Emission Factor and the documentary evidences for all the values used in the computation have been provided as in 'Supportive-4: Data values for computation of Northern Regional Grid Emission Factor'.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] The documentary evidences submitted were received. The excel sheet provided was also checked and it looks that the emission factor is on higher side and needs to be changed to CEA data

Date: 28th March 2007

[Comment Client] Changed to CEA data as 0.76 ex ante as per ACM0002. PDD revised accordingly along with excel sheet.

Date: 28th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK CAR6 closed out.

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
7	CAR	Proof for the zero leakage consideration needs to be submitted.	2.5

Date: 17th March, 07

[Comment Client] The HCM project activity claims for GHG emission reduction resulting from bagasse based power generation utilizing the bagasse generated in the HCM Sugar Plant.

Among the total bagasse generated at Haidergarh sugar plant, certain quantum of bagasse would have been utilised in the reference co-generation plant for generation of steam and power (B4) in absence of the HCM project activity and the balance quantity of bagasse of Haidergarh sugar plant would have been burned in an uncontrolled manner without utilizing it for energy purposes (B3) in absence of the HCM project activity.

Therefore in accordance with the methodology, the project proponent is required to establish that the portion of the bagasse quantity generated in the Haidergarh sugar plant, which otherwise would have been burnt in an uncontrolled manner without utilizing for energy purposes in absence of the HCM project activity (i.e. bagasse quantity corresponding to B3), does not result in increased fossil fuel consumption elsewhere. Since the HCM sugar plant is a greenfield power project, the bagasse generated at the HCM sugar plant was not available for use to other users. Therefore there is no diversion of bagasse with the implementation of the HCM project activity which may result in an increase in emissions from fossil fuel combustion at other sources with respect to the B3 quantity of bagasse generated in the HCM sugar plant.

Further bagasse residue is available in abundance in Uttar Pradesh (where the HCM project activity is undertaken) and only a small quantum of the generation is utilized for power generation in cogeneration systems. Therefore the potential for bagasse based power generation in Uttar Pradesh is still not harnessed (Documentary evidence for the same have been provided to the

validator) leaving a substantial quantum of bagasse residues remaining unutilized. This justifies the consideration of zero leakage emission for ex-ante computation of emission reduction resulting from the HCM project activity.

However, as mentioned in the PDD the same will be demonstrated on an ex-post basis as per the guidelines of the baseline methodology. Under circumstances wherein abundance supply of bagasse residues cannot be demonstrated, leakage emissions will be computed in line with the guidance of the baseline methodology and the same will be accounted for in the computation of emission reduction resulting from the HCM project activity.

Date: 20-3-2007 [Pankaj Mohan]

[Comment Local Assessor] The explanation is accepted and CAR7 could be closed out.

Date: 20-3-2007 [Sanjeev Kumar]

[Acceptance and close out] OK CAR7 closed out

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
8	CAR	Documented evidences for step 0 to be provided by the project proponent.	3.2

Date: 17th March 2007

[Comment Client] The 'Supportive-5: Corporate documentation with regard to the HCM project activity related discussions at the Board Meeting' has been provided.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] The same has been provided. The project proponent also submitted the NM0030 in EB13 which was later rejected in EB16. This was done before 31st December 2005 and same has been verified from the website as well.

Date: 20th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK CAR8 closed out.

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
9	CAR	In Sub step 3a Investment barrier, Technological barrier and other barriers mentioned are not clear. Documentary evidence needs to be provided by the project proponent.	3.2

Date: 30th January 2007

[Comment Client] As stated in the PDD the project activity faced barriers related to investment, technology and other barriers related to managerial resources, organisational limitations and other institutional issues. The 'Supportive-5: Corporate documentation with regard to the Project activity related discussions at the Board Meeting' highlights the project related barriers to implementations.

The following evidences enclosed herein establish the concerns related to investment barriers:

'Supportive-6: Statement on financing details of the HCM project activity

'Supportive-7: Variations in the BCML's Cash Flow statement, Cost of Production and average realization due to seasonal income flows.'

'Supportive-8: Sugar cane price is pre-decided by government; sugar price is set as per the quota; no plans for sugar decontrol;'

'Supportive-9: Bank rejection letter demonstrating Investment barriers'

The following evidences enclosed herein establish concerns related to institutional barriers:

'Supportive-10: Financial conditions of state electricity boards in India' which includes sections from the Governance Reforms : planning.up.nic.in/annualplan0203/part1/chap-08.htm and Indian Power Sector Reforms Update (2002)

The following evidence enclosed herein establishes concerns related to managerial barriers:

'Supportive-11: Managerial resource for the project activity' details the new recruitments for the

project activity with higher compensations.
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] Supportive 6, 8, 9, and 10 provided are OK but the supportive 7 & 11 are not in accordance with the requirement. Please also tell how CDM played a role in overcoming the barriers mentioned and provide evidence for the same. CAR09 could not be closed out.
Date: 17 th March, 07 [Comment Client] Supportive 7 has been certified by BCML and enclosed herein The Supportive 11 has been certified by the concerned personnel and enclosed herein.
Date: 20-3-2007 [Pankaj Mohan] [Comment Local Assessor] The explanation is accepted and CAR9 could be closed out.
Date: 20-3-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR9 closed out

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
10	CAR	Common practice analysis is not transparent i.e. step 4a is not clear. Provide documentary evidence of the table B.5 mentioned in PDD.	3.2
Date: 30 th January 2007 [Comment Client] The following evidences enclosed herein establish the common practice scenario: 'Supportive-12: Common practice assessment			
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] Reply is not adequate and it is not providing any justification on Common practice analysis. CAR10 could not be closed out.			
Date: 17 th March, 07 [Comment Client] At the time of HCM project activity implementation, the potential for bagasse based co-generation in Uttar Pradesh was 1000 MW out of which only 46.5 MW was commissioned till 31 st December 2002. (The supportive on Renewable Energy in India substantiates the same). This proves that bagasse based co-generation was not a common practice in Uttar Pradesh at the time of inception of the HCM project activity. Further out of 114 Sugar Mills only 5 Mills have opted for high pressure configuration boilers in the cogeneration plant and all 5 Mills have undertaken the same under the CDM. The five plants are: (1) Balrampur Chini Mills Limited of BCML at Balrampur, (2) Haidergarh Chini Mills of BCML at Haidergarh, (3) Triveni Engineering & Industries Limited at Deoband, (4) Dalmia Sugars Limited at Shahjahanpur and (5) Mawana Sugars Limited at Meerut. The U.P. Sugar Mills Cogen Association has also acknowledge Haidergarh Chini Mills commissioned in the year 2003 which is the first fully integrated high pressure sugar cum cogeneration power plant in the State of Uttar Pradesh.			
Date: 20-3-2007 [Pankaj Mohan] [Comment Local Assessor] The explanation is accepted and CAR10 could be closed out.			
Date: 20-3-2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR10 closed out			

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
11	CAR	The baseline emission is not monitored as per monitoring methodology. The monitoring does not mention about data retrieval, instrument used, and Remarks/ Comments.	4.2
Date: 30 th January 2007			

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[Comment Client] The computation of baseline emissions has been elaborated in the Revised PDD-Version 02 following the guidance of the methodology. All the parameters required to be monitored for the purpose of determination of baseline emissions alongwith their relevant information (like data retrieval system, instrument used and Remarks/ Comments) are furnished in the Revised PDD-Version 02 following the guidance of the Approved Consolidated Monitoring Methodology ACM0006/ Version 04.
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] Revised PDD version 02 mentions the monitoring of baseline parameters as per methodology and also mentions about the data retrieval system, Instruments used and Remarks / Comments. This was accepted and hence CAR11 could be closed out.
Date: 5 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR11 closed out.

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
12	NIR	There is no project emissions considered due to the project activity. Proof to be submitted for fossil fuel to be used or not.	4.3
Date: 30 th January 2007 [Comment Client] As per the methodology, project emissions from HCM project activity can only result from <u>On-site fossil fuel and electricity consumption due to the HCM project activity</u> - There is no fossil fuel consumption either at the HCM power plant or at the project site that can be attributed to the HCM project activity. Furthermore the conveyor system for transportation of bagasse residues from HCM sugar plant and from the stock yard area to the boiler site will consume electricity generated in the HCM power plant which will utilize bagasse residues as the only fuel source. Therefore there will not be any project emissions from this source. The same has been verified during site validation. <u>Off-site transportation of biomass residues</u> - As per the guidance of the Meth Panel (F-CDM-AM-Rev_Resp_ver 01 - AM_REV_0013), the bagasse residues sourced from other units of BCML are excluded and hence the project proponent will not claim for any emission reductions resulting from the usage of outside bagasse residues for generation of energy in the HCM project plant. Therefore the emissions from transportation of bagasse residues from other units of BCML are not considered as project emissions. <u>Combustion of biomass residues for electricity and/or heat generation</u> - The justification for exclusion of this emission source is elaborated in Revised PDD-Version 02. <u>Storage of biomass residues</u> - The justification for exclusion of this emission source is elaborated in Revised PDD-Version 02.			
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] The justification provided in the revised PDD along with the meth panel response is found to be OK. This was accepted and hence NIR12 could be closed out.			
Date: 5 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR12 closed out.			

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
13	NIR	documentary evidence for not monitoring the leakage to be provided by client.	4.4
Date: 30 th January 2007 [Comment Client] Please refer to CAR 7 for the justification of not considering leakage emissions in HCM project activity.			

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However, as per the requirement of the methodology, the quantity of bagasse residues for which leakage cannot be ruled out, will be monitored annually on an ex-post basis and the leakage emissions, if applicable, will be considered and deducted.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] This is accepted and Hence NIR13 could be closed out.

Date: 20th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK NIR13 closed out

Date: 03-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
14	NIR	QA / QC procedures are not mentioned in monitoring plan.	4.5

Date: 30th January 2007

[Comment Client] The QA/QC procedures for all the parameters to be monitored during the crediting period of the HCM project activity are explained in the Revised PDD-Version 02.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] Revised PDD version 02 received is mentioning the QA/QC procedures. This was accepted and Hence NIR14 could be closed out.

Date: 5th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK NIR14 closed out.

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
15	NIR	Project proponent got the EIA done. Proof to be submitted.	6.2

Date: 30th January 2007

[Comment Client] The 'Rapid Environmental Impact Assessment' study report for the sugar plant and the co-generation plant of Haidergarh Chini Mills has been provided. Please refer to 'Supportive-13: Rapid Environmental Impact Assessment study report'.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] Supportive 13 provided as REIA report is found to be OK and hence NIR15 could be closed out.

Date: 5th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK NIR15 closed out.

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
16	NIR	Documentary evidence i.e. NOC needs to be provided from stakeholders mentioned in PDD.	7.1

Date: 30th January 2007

[Comment Client] The stakeholder consultation letters (for e.g., NOC from UPPCB, Approval from UPERC, PPA with UPPCL) have been provided. Local people were also consulted during site validation. Please refer to 'Supportive-14: Stakeholder Consultation Letters'.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] The approvals, NOC's provided are found to be OK. The local stakeholder consultation MOM is not provided along with the other documentary proofs. Hence NIR16 could not be closed out.

Date: 17th March, 07.

[Comment Client] The stakeholders have been consulted verbally and they have been positive about the project activity. The validator also conducted the stakeholder consultation and the

people have appreciated BCML's efforts. Comments from the U.P. Sugar Mills Cogen Association have also acknowledge BCML's project endeavour.

Date: 20-3-2007 [Pankaj Mohan]

[Comment Local Assessor] The explanation is accepted and NIR16 could be closed out.

Date: 20-3-2007 [Sanjeev Kumar]

[Acceptance and close out] OK NIR16 closed out

Date:04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
17	NIR	Appropriate media been used to invite comments from local stakeholders. Documentary evidence needs to be provided.	7.2

Date: 30th January 2007

[Comment Client] The process of stakeholder consultation was initiated by BCML by verbally communicating and sharing salient information of the HCM project activity with the identified stakeholders. The relevant section in the PDD has been revised accordingly. Please refer to the Revised PDD-Version 02.

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] The reply is OK as this was also verified by the local assessor during site visit by interviewing some of the local people. NIR17 could be closed out.

Date: 5th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK NIR17 closed out.

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
18	CAR	The project does not apply the PDD template correctly. Date and version missing on page 2 section A.1 of PDD.	8.1.1

Date: 30th January 2007

[Comment Client] The template of the Revised PDD-Version 02 follows the "Project Design Document Form (CDM-PDD) - Version 03.1" and the same has been developed as per the "Guidelines for completing the Project Design Document (CDM-PDD) and the Proposed New Baseline and Monitoring Methodologies (CDM-NM)/ Version 06.1".

Date: 5th March 2007 [Pankaj Mohan]

[Comment Local Assessor] The revised PDD version 2 is applying the PDD template version 3.1 correctly. This is accepted and hence CAR18 could be closed out.

Date: 5th March 2007 [Sanjeev Kumar]

[Acceptance and close out] OK CAR18 closed out.

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
19	CAR	The project proponent has installed 20.25MW turbo generator and another of 3 MW later. Provide documentary evidences	8.2.1

Date: 30th January 2007

[Comment Client] The following documentary evidences (Supportive-15) on installation of the 20 MW and 3 MW turbo-generators are provided:

"Consent for 20 MW Captive/ Co-generation Capacity" issued by Uttar Pradesh Electricity Regulatory Commission.

"Consent for installation of 3 MW Turbo-generator Set" issued by Department of Electrical Safety,

Government of Uttar Pradesh.
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] The supporting provided for 20 MW is OK but the 3MW it is not mentioned in any of the pollution consents. The 3MW plant is given permission by department of electrical safety to install it. This is accepted. Hence CAR19 could be closed out.
Date: 20 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK CAR19 closed out

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
20	NIR	Provide evidence for the specifications of the technology used.	8.2.2
Date: 30 th January 2007 [Comment Client] The specifications for the turbo-generators and the boiler, as provided by the respective suppliers, have been provided (Supportive-16).			
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] The supportive provided is found to be OK. Hence NIR20 could be closed out.			
Date: 5 th March 2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR20 closed out.			

Date: 04-10-2006

Raised by: Pankaj Mohan

No.	Type	Issue	Ref
21	NIR	Provide evidence for technology will not be changed during the crediting period.	8.2.3
Date: 30 th January 2007 The technology for steam and power generation with bagasse residues at the HCM project plant will not change during the crediting period. The same can be verified at any time during the crediting period.			
Date: 5 th March 2007 [Pankaj Mohan] [Comment Local Assessor] The reply is not in line with the query raised as we need documentary evidence that Technology will not change during the entire crediting period. NIR21 could not be closed out.			
Date: 17 th March,07. [Comment Client] The same has been provided.			
Date: 20-3-2007 [Pankaj Mohan] [Comment Local Assessor] The explanation is accepted and NIR21 could be closed out.			
Date: 20-3-2007 [Sanjeev Kumar] [Acceptance and close out] OK NIR21 closed out			

Observations:

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