VALIDATION REPORT

VALIDATION OF THE DSCL SUGAR AJBAPUR COGENERATION PROJECT PHASE II

REPORT NO. BVQI/INDIA/60.49

REVISION NO. 03

BUREAU VERITAS QUALITY INTERNATIONAL HOLDING S.A.

VALIDATION REPORT

Date of first issue: 23rd December 2006	Project No.: 261834
Approved by: Ashok Mammen	Organisational unit: BVQI Holdings S.A.
Client: DCM Shriram Consolidated Ltd.	Client ref.: Sunil Mohan Radhakrishna

Summary:
BVQI Holding S.A.(BVC HOLDING S.A.) has made a validation of the DSCL Sugar Ajbapur Cogeneration Project Phase II located in village Ajbapur, District Lakhimpur-Kheri in the state of Uttar Pradesh a power capacity expansion project of M/s. DCM Shriram Consolidated Ltd. (Hereafter called "the project") located in village Ajbapur, District Lakhimpur-Kheri, State of Uttar Pradesh, 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 validation scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan (June 2006); ii) follow-up interviews with project stakeholders (August 2006); iii) resolution of outstanding issues and the issuance of the final validation report and opinion (February, 2007). The overall validation, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (BMS, September 2003), which were audited by the UN CDM Accreditation Team in December 2004.

The first output of the validation process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is BVQI HOLDING S.A.'s opinion that the project correctly applies the baseline and monitoring methodology correctly and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Report No.: BVQI /INDIA/60.49	Subject Group: GHG/CDM	
Report title: Validation of the DSCL Sugar Ajbapur Cogeneration Project Phase II of DCM Shriram Consolidated Ltd. at village Ajbapur, District Lakhimpur-Kheri, Uttar Pradesh, India		
Work carried out by: KH Sharma BG Bhat V Venkatchalam		
Work verified by: Ashok Mammen		
Date of this revision: 14th February 2007	Rev. No.: 03	Number of pages: 61

Indexing terms

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Abbreviations

BMS	BVQI HOLDING S.A. Management System
BVC	Bureau Veritas Certification India Private Limited
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CH_4	Methane
CL	Clarification Request
CO_2	Carbon Dioxide
DIS	Draft of International Standard
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
GHG	Green House Gas(es)
I	Interview
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organisation for Standardization
MoV	Means of Verification
MP	Monitoring Plan
NGO	Non Government Organisation
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change
DSCL	DCM Shriram Consolidated Ltd.
NRLDC	Northern Region Load Distribution Center

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1 INTRODUCTION

DCM SHRIRAM CONSOLIDATED LTD. (Hereafter called “the client”) has commissioned Bureau Veritas Quality International Holding S.A. (BVQI HOLDING S.A.) to validate its DSCL Sugar Ajbapur Cogeneration Project Phase II at Ajbapur village in Lakhimpur-Kheri District, the state of Uttar Pradesh, India (hereafter called “the project”).

This report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide consistent project operations, monitoring and reporting.

1.1 Objective

The validation serves as project design verification and is a requirement of all Client projects. The validation is an independent third party assessment of 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 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).

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.

1.2 Scope

The validation scope 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. BVQI HOLDING S.A. has, based on the recommendations in the Validation and Verification Manual (IETA/PCF, v. 3.3, 2004), 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 project activity is the expansion project of cogeneration unit at the DSCL Sugar-Ajbapur plant located in the district Lakhimpur-Kheri in central Uttar Pradesh, India. Two new boilers of each having pressure rating 87 Kg/Cm2 and 60 tonnes per hour are being installed. Electricity will be generated by 20 MW Extraction cum condensing steam turbine. The electricity generated will be exported through the 132 KV set-up station already installed for the phase I project. Turbine generator will be powered by the combustion of bagasse, produced in the Sugar Mill. Project thus targets to reduce GHG emissions by displacing the fossil fuel dominated electricity by biomass based renewable electricity. Electricity is exported to the nearest grid sub-station through this 132 kV supply line and fed into the Uttar Pradesh grid on way to Northern Region Grid of the country, India.

1.4 Validation team

Validation team was selected considering and evaluating the project description in PDD and other technical details. Team was strengthened with a specialist in electrical power sector, financial expert and other experienced engineers as Validators who have conducted the validation of similar projects and do not have any other constraints such as language for communication with stakeholders and employees at site.

The validation team consists of the following personnel:

Mr. K.H.Sharma	BUREAU VERITAS CERTIFICATION India	Team Leader, GHG Validator is a B.Tech (Chemical Engg.) graduate and has more than 25 years of experience in Chemical industries. He has been involved in validation of more than 15 CDM projects
Mr.B.G.Bhat	BUREAU VERITAS CERTIFICATION India	GHG Validator is a B.Tech. (Mechanical) graduate. He has extensive experience in Power Sector and has more than 25 years of experience in Energy & Manufacturing industries. He has been involved in validation of more than 15 CDM projects
Mr. V.Venkatchalam	BUREAU VERITAS CERTIFICATION India	Financial Analyst. He has been involved in assessment of financial analysis of several CDM projects.
Dr.Ashok Mammen	BUREAU VERITAS CERTIFICATION India	Internal Reviewer Ph.D (Oils & Lubricants), M.Sc. (Analytical chemistry, Over 20 years of experience in petrochemical sector. He has been involved validation / review of more than 50 CDM projects.

2 METHODOLOGY

The overall validation, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (BMS, September 2003), which were audited by the CDM Accreditation Team in December 2004.

In order to ensure transparency, a validation protocol was customised for the project, according to the Validation and Verification Manual (IETA/PCF, v. 3.3, 2004). 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 five tables. The different columns in these tables are described in Figure 1.

The completed validation protocol is enclosed in Appendix A to this report.

Validation Protocol Table 1: Mandatory Requirements			
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)** or a **Clarification Request (CR)** of risk or non-compliance with stated requirements. The CAR's and CR's are numbered and presented to the client in the Validation Report.	Used to refer to the relevant protocol questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent validation process.

Validation Protocol Table 2: Requirements 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 several 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). **Clarification Request (CL)** is used when the validation team has identified a need for further clarification.

Validation Protocol Table 3: Baseline and Monitoring Methodologies				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements of baseline and monitoring methodologies should be met. The checklist is organised in several 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). **Clarification Request (CL)** is used when the validation team has identified a need for further clarification.

Validation Protocol Table 4: Legal requirements				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The national legal requirements the project must meet.	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). **Clarification Request (CL)** is used when the validation team has identified a need for further clarification.

Validation Protocol Table 5 : Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 2/3**	**Summary of project owner response**	**Validation conclusion**
If the conclusions from the 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 Tables 2 or 3 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the validation team should be summarised in this section.	This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Tables 2/3, under "Final Conclusion".

Figure 1 Validation protocol tables

2.1 Review of Documents

The Project Design Document (PDD) submitted by DCM SHRIRAM CONSOLIDATED LIMITED and additional background documents related to the project design and baseline, i.e. Indian Law, Guideline for completing the Project Design Document (CDM-PDD) and the proposed new baseline and monitoring methodologies (CDM-NM) Version 6, Approved Consolidated Baseline and Monitoring Methodology ACM 0006 Version 4, 2 November 2006 indicated as "Consolidated baseline methodology for grid-connected electricity generation from biomass residues" is applied to project activity, Tool for demonstration and assessment of additionality Version 2 28 November 2005, Consolidate Baseline Methodology for Grid Connected Electricity generation from renewable sources ACM 0002 Version 06 19 May 2006, Kyoto Protocol, Clarifications on Validation Requirements Checked by a Designated Operational Entity i.e. BUREAU VERITAS QUALITY INTERNATIONAL HOLDING S.A. were reviewed.

The following documents were used as references to the validation work, in addition to internal BVQI HOLDING S.A. procedures: IETA/PCF – Validation and Verification Manual (v. 3.3, Mar 2004); ISO DIS 14064-3 - Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions; ISO DIS 14064-2 - Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

To address corrective action and clarification requests raised by BVQI HOLDING S.A., DSCL revised the PDD and resubmitted it on February 12, 2007.

The validation findings presented in this report relate to the project as described in the PDD, Version 4 on February 07, 2007.

2.2 Follow-up Interviews

On August 1, 2006 BVQI HOLDING S.A. performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of DSCL were interviewed (see References). The main topics of the interviews are summarised in Table 1.

Table 1 Interview topics

Interviewed organisation	Interview topics
DCM Shriram Consolidated Limited	• Commitment of organisation towards GHG emission reduction • Evidence of date of starting of project activity and CDM consideration • Checking the documentation of procurements of critical equipments such as Boilers & Turbines • Discussions on additionality and related evidences • Operation and maintenance management. • Power Purchase Agreements with state electricity board • Record keeping and QA/QC of data • Sensitivity towards local stakeholders and actions on their comments • Monitoring methodologies. • Barriers, IRR and confirmation of information • Project activity conformance with PDD details,

	• Calculations for GHG calculations and emission reduction • Proposed plan for Calibration of monitoring equipment • Proposed plan for GHG audits and review • Responsibility and authority of various persons • Governmental clearances and compliances
LOCAL Stakeholder Farmers, local stakeholders and Employees who have been given job	Interaction towards satisfaction of local stakeholders with respect to information sharing on CDM, infrastructure development and change in working conditions if any.
Consultants –DSCL Energy Services Company Limited Mr. Paramdeep Singh Mr. Charu Gupta	• Additionality, Baseline, Monitoring plan • Procedure for Operation & management of proposed project activity • Discussions on additionality and related evidences • Base line emissions and the emissions reduction

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation was to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for BVQI HOLDING S.A. positive conclusion on the project design.

BVQI HOLDING S.A. raised sixteen CARS' and thirteen CL's during the process of validation, these were resolved after evaluating the corrective action response from Project Participant.

To guarantee the transparency of the validation process, the concerns raised are documented in more detail in the validation protocol in Appendix A.

3 VALIDATION FINDINGS

In the following sections, the findings of the validation are stated. The validation findings for each validation subject are presented as follows:

1) The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are summarised. A more detailed record of these findings can be found in the Validation Protocol in Appendix A.
2) Where BVQI HOLDING S.A. had identified issues that needed clarification or that represented a risk to the fulfillment of the project

objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Validation Protocol in Appendix A. The validation of the Project resulted in Corrective Action Requests and Clarification Requests.

3) The conclusions for validation subject are presented.

3.1 Project Design

The proposed project activity involves generation of electricity through biomass residues produced in Sugar manufacturing process and by rice husk procured from nearby area. The two high pressure boilers capable to produce steam of 60 TPH at a pressure of 87 Kg/Cm2 shall be run on the biomass residue i.e. Bagasse. Steam produced thus will be used for generating electricity in 20 MW turbine. The electricity will be exported to nearby electricity grid and will replace the electricity otherwise would have been produced by various fuels dominated by fossil fuel. The project activity is being installed in village Ajbapur of Lakhimpur-Kheri District in the state of Uttar Pradesh, India.

The technology employed is modern and proposes the use of automatically controlled processes and equipments. The current system of maintenance of equipment and record keeping indicates the management of the same to be efficient. Validation team has a view that this proposed project activity of generating and transferring the power by use of biomass residue is environmentally friendly process of reducing the GHG emissions. Technology with reference to prevailing Indian conditions is comparatively mature and efficient. It is observed during the site visit that the technical arrangements, management and expertise are evident to effectively attain the GHG emission reduction after the commissioning of the said project.

The project activity is undertaken by The DCM Shriram Consolidated Limited.

It is confirmed by DOE that there is evidence of CDM consideration before the start of the project activity. Resolution by Board of Directors dated is also an evidence for the consideration of CDM incentives. DOE confirmed relevant extracts from the Minutes of Meeting.
Consideration for incentive of CDM is also evident through various communications from GM of factory to the Director of Company. Communication indicated awareness about CDM and the project IRR was evaluated for review. Communication also indicated the guideline finalized for fixing minimum (20%) IRR for future projects. Evidence dated 20.10.2002 for the same is included in the attached list of documents.

In the absence of the project activity, electricity generated by the power plant would have been generated using a fossil fuel in a captive power plant or would have been procured from the grid that is dominated by fossil fuel based thermal power plants. Alternatively, the power would have been produced in other power plants.

BVQI HOLDING S.A. recognises that DCM Shriram Consolidated Limited Project is helping India fulfill its goals of promoting sustainable development. Specifically, the project is in line with host-country specific CDM requirements because it -

- Contributes towards meeting the electricity supply deficit in the state of Uttar Pradesh through the control of Northern Region Grid
- Improves micro-economic efficiency of the power sector through improved availability
- Avoids GHG emissions from fossil fuel burning
- Generates direct and indirect jobs in project maintenance

The Project Scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Certified Emissions Reductions (CERs) under the CDM, based on an analysis, presented through the revised PDD Version 4. The additionality has been appropriately demonstrated by use of the advised tool "Tool for demonstration and assessment of additionality" version 2, 28 November 2005. During the analysis the Step 2 has been chosen and the financial expert from the validation team has verified the correctness and appropriateness of IRR.
DOE has also confirmed of existence of barriers such as barriers related to bagasse availability, technological, Institutional risks, and uncertainty of tariff rates.

The project design is sound and the geographical (the project location) boundaries of the project are clearly defined.

3.2 Baseline

The DCM SHRIRAM CONSOLIDATED LTD. project activity is a Grid connected biomass residue fired power plant expansion project. Proposed project activity involves installation of two new biomass based power generation units and one 20 MW extraction cum condensing turbine. Installation for proposed project activity is next to existing biomass power generation unit fired with the same biomass residue i.e. Bagasse. The existing plant will continue to work after the installation and commissioning of the proposed project activity. DOE has confirmed that all the applicable conditions of "Consolidated Baseline Methodology for grid connected electricity generation from biomass residues" ACM 0006 Version 4 are met.

The proposed project activity of DCM Shriram Consolidated Ltd. will produce and export the electricity to the Northern Region Grid. The project activity is designed not to use any fuel for preparation for the preparation of biomass residues. DOE confirms that no such equipment used for preparation was found installed in the plant. The project activity of DSCL Sugar Cogeneration Project Phase II is a large-scale renewable energy supply grid-connected project activity in energy sector for scope number 1.

The emission reductions as per the ACM 0006 version 4, 02 November 2006 the version at the time of submission of the request for registration indicates the applicability of scenario 12 and scenario 10 for the proposed project activity. The total emission reduction as indicated in the methodology is the addition of emission reductions due to displacement of heat, due to displacement of electricity and the baseline emissions due to natural decay or burning of anthropogenic sources of biomass after subtracting of the project emission and the leakages. Emission reduction for displacement of electricity is the kWh produced by the proposed project multiplied by the emission coefficient. Emission reduction for displacement of heat is considered as nil since the proposed project efficiency for heat generation is more than the existing efficiency of heat generating equipment.

Methane emission is considered nil as the natural decay or uncontrolled burning of anthropogenic sources of biomass has been excluded as per scenario 10 requirements in case the biomass (rice husk) is procured externally. Adequate monitoring of parameters is considered and indicated in PDD.

The choice of this baseline methodology is considered applicable due to following prevailing situations:

It is concluded by DOE that based on the prevailing situations the northern region grid will remain carbon intensive during the ten-year crediting period. The emission coefficient has been determined based on actual power generated from all power generation sources in the northern regional grid and as monitored and published by the Central Electricity Authority for the period April 2003 to March 2005.

In line with approved and applicable methodology ACM 0006, there is sufficient demonstration of additionality based on the Stepwise analysis as recommended in ”Tool for the demonstration and assessment of additionality” Current version 2, 28 November 2005. The evaluation of Internal Rate of Return by the financial expert and existence of technological barriers, investment barriers, institutional barriers, Bagasse availability issues and the prevailing practice (considering the implementation level in the state facing the project) indicates the existence of additionality transparently and strongly.

Calculation of emission factor is transparently indicated by use of publicly available data from CEA, IPCC etc.

The revised PDD Version 4 dated February 07, 2007 clearly explains how the project is additional and is not part of the baseline scenario.

It is appropriately and systematically demonstrated that the project activity itself is not a likely baseline scenario due to the existence of investment, regulatory, technological and other barriers.

The project's additionality has been demonstrated through presenting mainly investment analysis occurring at various phases of project. DCM Shriram Consolidated Ltd. has made comparatively high incremental investment in high-pressure boilers, and has taken risk of high investment. Bagasse availability has been rightly attributed to the insufficient water sources for cultivation and diversion of Cane to manufacturers of Khandsari, a local product also derived from cane juice.

Institutional risks in the form of change of PPA conditions and the procurement tariff are also indicated to be derived from the past practices of uncertainty.

Validation team is of the opinion that the sustainability of project activity of DSCL Sugar Ajbapur Cogeneration Project Phase II and its dependence on securing the proposed carbon finance through sale of carbon credits has been satisfactorily demonstrated by providing relevant data and information.

The Project Scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Certified Emissions Reductions (CERs) under the CDM, based on an analysis, presented by the PDD, of regulatory, investment, technological and other barriers.

The application of the baseline methodology is transparent and conservative.

The project complies with the baseline requirements.

3.3 Monitoring Plan

The Project uses the following approved monitoring methodology

Title: "Consolidated monitoring methodology for grid-connected electricity from biomass residues" ACM 0006 / version 04 Sectoral scope 1.

Project uses amended version 04 of Approved consolidated monitoring methodology ACM 0006. This methodology is used in conjunction with the approved baseline methodology ACM 0006 (Consolidated baseline methodology for grid -connected electricity generation from biomass residues). Monitoring methodology requires monitoring of the parameters as per the applicable scenario. The scenario 12 is applicable for the project activity and accordingly the parameters are chosen.

It is indicated in PDD that in case of rice husk procurement externally the scenario 10 is applied and the monitoring plan includes the monitoring of biomass procured and used and EF for the most carbon intensive fuel will be taken from externally available public websites of CEA and IPCC.

DOE is of the opinion that the adopted monitoring methodology has been chosen based for scenario 12 and scenario 10 and the parameters identified are as per methodology ACM 0006.

The energy meters are indicated for calibration every year and this is indicated in the monitoring plan.

DOE assessed the procedures and actual practices of monitoring and measurement prevalent at the site and these were found meeting the practices outlined in PDD.

It is concluded by DOE that the application of the monitoring methodology is transparent and conforms to mentioned methodology.

3.4 Calculation of GHG Emissions

The baseline emission sources considered are fossil fuel fired power plants connected to the relevant electricity system (grid). The relevant grid considered for the calculation of baseline emissions is the Northern region grid and not the state or the National grid. The reason for such exclusion of the latter grids is that in the host country i.e. India the control of electric supply is through regional grids. This decision is used subsequently for data compilation of regional grid participants and deciding the future planning.

The PDD clearly defines the project's spatial boundaries. It involves the energy generating equipments at the sugar plant including bagasse fuel storage, new cogeneration plant and auxiliaries, the means of transportation of biomass to the project site, existing boilers/turbines as well as all power plants connected to the Northern grid.

The projects components are clearly defined and described in the revised PDD version 04. During the visit on site the indicated information in PDD has been confirmed.
Details on the assumptions for the emission reduction calculations have been submitted and the formulae used are correctly applied.

Data for electricity production (EGhistoric) during the crushing season 2003-2004, 2004-2005 and 2005-06. Evidence for the same has been provided to the validation team.
Project emission estimations due to transportation are based on the additional biomass quantity needed according to the calculations done at the project planning stage.
Emission reductions or increase due to the displacement of heat can be estimated as zero. The annual average over the crediting period of the estimated reductions is 57034 tonnes of CO_2e.

With reference to scenario 12 of methodology, project does not lead to any leakage, however for scenario 10 the required provision for monitoring has been considered.

3.5 Sustainable Development Impacts

No significant environmental impacts have been identified from the project activity and this is in line with sustainable development policy guidelines of host country.

No harm to the ecological environment is envisaged and Organisation is complying with relevant statutory environmental norms and has been provided with the relevant consent by State Pollution Control Board.
In view of positive environmental impact, contribution towards the country's goal of sustainable development improvement in quality of life of most of the local population, the development and implementation of systems for installation and commissioning of Bagasse based electricity generation and export of the generated power were recommended by the DCM SHRIRAM CONSOLIDATED LTD. management.
The clearance of this CDM initiative by DCM SHRIRAM CONSOLIDATED LTD. would facilitate the process of sustainable energy production.

3.6 Comments by Local Stakeholders

Local stakeholder consultation meeting to discuss stakeholder concerns on the proposed Clean Development Mechanism (CDM) project–was conducted by DCM Shriram Consolidated Limited's for its grid-connected bagasse based power plant at Village Ajbapur, District Lakhimpur-Kheri in Uttar Pradesh state of India.

The stakeholders such as farmers, employees and persons living in nearby villages connected with various services viewed the DCM SHRIRAM CONSOLIDATED LTD.project as contributing to local environmental benefits and socio-economy.
Overall, there was agreement that the project activity was a beneficial project for local sustainable development. Validation team interviewed some of these local stakeholders present during the formal meeting held on 23.06.2006. The persons interviewed by validation team during site visit interactions endorsed these positive views for the project activity.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Validation of CDM projects, the Validator shall make publicly available the project design document and receive, within 30 days; comments from Parties, stakeholders, and UNFCCC accredited non-governmental organisations and make them publicly available.

BVQI HOLDING S.A. published the project documents on the UNFCCC CDM website (http://cdm.unfccc.int) on 25/06/2006 and invited comments within 24/07/2006 by Parties, stakeholders and non-governmental organisations.

No Comment was received from any individual within the commenting period.

5 VALIDATION OPINION

BVQI HOLDING S.A. has performed a validation of the DSCL Sugar Ajbapur Cogeneration Project Phase II in India. The validation was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan (June 2006); ii) follow-up interviews with project stakeholders (August 2006); iii) the resolution of outstanding issues and the issuance of the final validation report and opinion (February 2007).

By generating electricity from biomass residue the above mentioned project is likely to result in reductions of GHG emissions partially displacing electricity that would have otherwise been purchased from the grid. An analysis of the investment, regulatory and technological barriers demonstrate that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation (February 07, 2007 version 4) and the interviews has provided BVQI HOLDING S.A. with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

DOE has confirmed that the project proponents have used the Central Electricity Authority (CEA) data for emission factor published and available for CDM projects in host country India.

BVQI HOLDING S.A. has received a confirmation by the host Party (India) that the project contributes to Sustainable Development in India.

BVQI HOLDING S.A. hence recommends the DSCL Sugar Ajbapur Cogeneration Project Phase II Project for registration with the UNFCCC.

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

6 REFERENCES

Category 1 Documents:
Documents provided by DSCL Consolidated Limited that relate directly to the GHG components of the project.

1 Project Design Document Version 4, February 07, 2007

2	LOI for 20 MW turbine no. DSCL/IMP/AJB/2005 dated 11.05.2005 placed to M/s. Ameri Source, Pittsburgh, USA
3	LOI for one number Alternator DSCL/IMP/AJB/2005 dated 23.05.2005 placed to M/s. Ameri Source, Pittsburgh, USA
4	DNA Approval number F.No.4/13/2006-ccc dated 22nd December 2006 from host country India
5	DNA Approval number AL/15/2006 dated 5th September 2006 from participating country "UK"
6	Evidence of CDM consideration available through internal communication between GM (Factory) to Director. Period is from December 2004 to January 2005
7	Letter indicating internal benchmark of IRR (20%) for DSCL projects dated 20.10.2002
8	ISO 9001:2000 certificate for Ajbapur Sugar Complex and List of procedures
9	Evidence for starting date of project activity as the circular dated 09.05.05 for performing the start of activity on 11.05.2005 for Boiler IJT-1
10	Internal communication dated 10th July, 2006 decision for the completion of the 20 MW Power Plant by 15th November, 2006
11	Project Financials, February 2007 of DSCL Sugar Ajbapur Cogeneration Project Phase II (IRR)
12	Air Consent number 159/Consent (air) order/2004/42 dated 27.12.04 valid till 31.12.06
13	Water consent 0/Consent/Water (order)/2004/5/Lucknow dated 28.12.04 valid till 31.12.06
14	No Objection Certificate No.F04285 C-5/NON-361/06/06 dated 26.07.06 Issued by Uttar Pradesh Pollution Control Board, Gomtinagar, Lucknow allowing increase in capacity from 8000 TCD to 11000 TCD and increment of 20 MW in Power generation capacity.
15	Proceeding of Stake-holder meeting with farmers and other persons/residents-belonging to the area of Ajbapur Sugar Mill dated 23.06.2006
16.	Extracts from the Minutes of the Meeting of the Board of Directors held on 14.06.2005 indicating the CDM consideration duly endorsed by Company Secretary
17	Extracts from the Minutes of the Meeting of the Board of Directors held on 26.07.2005 indicating the CDM consideration duly endorsed by Company Secretary
18	Power Purchase Agreement between M/s. DSCL Sugar Ajbapur and Madhyanchal Vidyut Vitran Nigam Limited dated 01/03/2006 for a period of 5 years
19	Modalities for communicating with Executive board of UNFCCC dated 26.12.2006
20	Minutes of special board meeting of DCM Shriram Consolidated Limited, New Delhi conducted on 14.06.2005

Category 2 Documents:

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

1 Consolidated baseline methodology for grid-connected electricity generation from biomass residues ACM 0006 Version 04, 02 November 2006.
2 Consolidated monitoring methodology for grid-connected electricity generation from biomass residues ACM 0006 Version 04, 02 November 2006.
3 Guidelines for completing the PDD and the proposed new baseline and monitoring methodologies (CDM-NM) Version 6
4 Kyoto Protocol to the United Nations Framework Convention on Climate Change, United Nations, Dec 1997.
5 Consolidated baseline methodology for grid connected electricity generation from renewable sources ACM 0002 Version 6, 19 May 2006
6 "Tool for demonstration and assessment of Additionality" Version 2, 28 November 2006

Persons interviewed:

List persons interviewed during the validation, or persons that contributed with other information that are not included in the documents listed above.

/1/ Mr. Naresh Paliwal- Sr. General Manager-DSCL
/2/ Mr. Pradeep Tyagi- General Manager-Technical- DSCL
/3/ Mr.S.K.Agnihotri- Additional General Manager- DSCL
/4/ Mr. Dinesh Sardana–Dy.General Manager Finance– DSCL
/5/ Mr. M.A.Samy – Sr.Manager-Power Plant- DSCL
/6/ Mr.Gurdial Singh- In-charge Quality Control- DSCL
/7/ Mr.D.K.Tiwari-H.O.D.-Electrical- DSCL
/8/ Mr.Anil Verma-Sr.Engineer-Electrical
/9/ Captain S.C.Lal-HOD-Administration- DSCL
/10/ Mr.Paramdeep Singh-DSCL Energy Services Company Limited
/11/ Mr.Charu Gupta-DSCL Energy Services Company Limited
/12/ Mr.Pramod Kumar Singh-Local Stakeholder
/13/ Mr.Sudhir Kumar Singh- Local Stakeholder
/14/ Mr. Rajesh Kumar Verma- Local Stakeholder

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Table 1 Mandatory Requirements for 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
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, Marrakesh Accords, CDM Modalities §40a	OK	Table 2, Section A.3
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 authorities of each party involved, including confirmation by the host party that the project activity assists it in achieving sustainable development	Kyoto Protocol Art. 12.5a, Marrakesh Accords, CDM Modalities §40a, §28, Annex 3 of the Resolução Interministerial 01/03	OK	Table 2, Section A.3.2 The project has received a letter of approval from Government of India and United Kingdom. Document contains all relevant elements defined in the document.
5. The emission reductions shall 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
6. Reduction in GHG emissions shall 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. 12.5c, Marrakesh Accords, CDM Modalities §43 and 44	OK	Table 2, Section B.3

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
7. Potential public funding for the project from Parties in Annex I shall not be a diversion of official development assistance	Marrakech Accords	OK	According to the information received by validation team, ODA is not contributing to financing of project. Refer A.4.5. of PDD
8. Parties participating in the CDM shall designate a national authority for the CDM	Marrakech Accords, CDM Modalities §29, UNFCCC website	OK	MOEF has been designated national authority for Host country, India
9. The host country shall be a Party to the Kyoto Protocol	Marrakech Accords, CDM Modalities §30, UNFCCC website	OK	Host country India has accessed Kyoto Protocol in August 2002
10. Comments by local stakeholders shall be invited, a summary of these provided and how due account was taken of any comments received	Marrakech Accords, CDM Modalities §37b	OK	Table 2, Section G
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out.	Marrakech Accords, CDM Modalities §37c	OK	Table 2, Section F
12. Baseline and monitoring methodology shall be previously approved by the CDM Methodology Panel	Marrakech Accords, CDM Modalities §37e	OK	Table 2, Section B.1.1 and D.1.1
13. Provisions for monitoring, verification and reporting shall be in accordance with the modalities described in the Marrakech Accords and relevant decisions of the COP/MOP	Marrakech Accords, CDM Modalities §37f	OK	Table 2, Section D
14. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	OK	Source http://cdm.unfccc.int/Projects/Validation

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
comments have been made publicly available			
15. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, CDM Modalities, §45 b, c, e	OK	Table 2, Section B.2
16. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, CDM Modalities, §47	OK	Table 2, Section B.2
17. The project design document shall be in conformance with the UNFCCC CDM-PDD format and fulfilled according to the guidelines for completing CDM-PDD, CDM-NMB, and CDM-NMM	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	OK	Project Design Document is in conformance with the current UNFCCC CDM PDD format Version 3 date 28th July 2006. Reference 1 to this validation protocol

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of Project Activity *The project design is assessed.*					
A.1. Title of the project activity, version number and date of the document	1	DR	Title of the Project activity: DSCL Sugar Ajbapur Cogeneration Project Phase II Version No. 01 and Date of document is 24/04/2006, Revised Version is 04 dated 07.02.2007	OK	OK
A.2. Description of the project activity					
A.2.1. Is the purpose of the project activity included?	1	DR I	A.2 indicates description of project activity. Purpose of the project activity is not defined in precise manner. Refer A.2.	CAR-1	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.2.2. Is the view of the project participants on the contribution of the project activity to sustainable development included?	1	DR	Yes. According to project participants, the project activity contributes to sustainable development through the following sustainable indicators stipulated by the Government of India. These indicators are as below: □ Contribution of social well-being. □ Contribution to economic well-being □ Contribution to environmental well-being. These indicators with reference to the DSCL project activity have been described in the A.2 of PDD. It is required to discuss how the social and economic contribution is related to the specific project activity.	CAR-2	OK
A.3. Contribution to Sustainable Development *The project's contribution to sustainable development is assessed.*					
A.3.1. Is the project in line with relevant legislation and plans in the host country?	-	DR I	Indian legislation allows use of either Fuel for the operations indicated in the project activity i.e. generation in power plant. The compliance with other relevant legislations e.g. Air & Water etc. consents related to UP Pollution Control Board etc. have been verified during site visit.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.3.2. Is the project in line with host-country specific CDM requirements?	-	DR I	Approval from Ministry of Environment & Forests (DNA) from host country India is granted vide their letter dated 26.07.2006, but this does not contain names of both project participants. Host country approval from UK is awaited. Refer CAR-4 for project participants.	CAR- 3	OK
A.3.3. Is the project in line with sustainable development policies of the host country?	-	DR I	Project proponents' view described in A.2 of PDD are in line with sustainable development policies of host country. DNA approval has been received from India dated 26.07.2006.	OK	OK
A.3.4. Will the project create other environmental or social benefits than GHG emission reductions?	-	DR I	The project is reported to contribute to sustainable development by GHG emission reduction and economical benefits.	OK	OK
A.4. Project participants					
A.4.1. Are Party (ies) and private and/or public entities involved in the project activity listed?	1	DR	Yes. There are three Private entities involved listed, these are (1) DCM Shriram Consolidated Limited (India) (2) DSCL Energy Services Company Limited (India), & (3) Agrinergy Limited. (UK) The involvement and conditions w.r.to these need be indicated in PDD and provided to DOE.	CAR-4	OK
A.4.2. Is the contact information provided in annex 1 of the PDD?	1	DR	Yes. Some of the field in the contact information provided in Annex 1 are not filled.	CAR-5	OK
A.4.3. Is this information indicated using the tabular format?	1	DR	Yes. The project participant information is indicated using the tabular format of the Annex 1 of PDD.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.5. Technical description of the project activity					
A.5.1. Location of the project activity					
A.5.1.1. Host country Party(ies)	1	DR	India	OK	OK
A.5.1.2. Region/State/Province etc.	1	DR	Uttar Pradesh State	OK	OK
A.5.1.3. City/Town/Community etc.	1	DR	District: Lakhimpur Kheri/ Village: Ajbapur	OK.	OK
A.5.1.4. Detailed description of the physical location, including information allowing the unique identification of this project activity.	1	DR	The project is located at Village Ajbapur, P.O. Mullapur District Lakhimpur Kheri in Uttar Pradesh, India. Unique identification of the project activity such as plot number/khasra no. is not indicated in PDD	CL-1	OK
A.5.2. Category of the project activity					
A.5.2.1. Is the category of the project activity specified?	1	DR	Scope1 is indicated Energy Industries (Renewable / non-renewable sources) is indicated.	OK	OK
A.5.2.2. Is it justified how the proposed project activity conforms to the project category selected?	-	DR	The proposed project activity is justified for the project category in section B.1.1	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.5.3. Technology to be employed *Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.*					
A.5.3.1. Does the project design engineering reflect current good practices?	-	DR I	Project Design engineering reflects good engineering practices. This is verified during site visit. Project activity has DCS control; GE turbine with four levels over speed control of T.G. e.g. Protech 203. Two Boilers are IJT make. Site visit and interactions there on indicate good project design engineering practices.	OK	OK
A.5.3.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	-	DR I	Project is confirmed to be of significantly better technology. Technology base and reliability of operational controls were evaluated during site visit and the same found of reasonably good level of automation and reliability.	OK	OK
A.5.3.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	-	DR I	Expected operational lifetime of the project activity is indicated to be 20 years. This was evaluated and verified during site visit.	OK	OK
A.5.3.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	-	DR I	System of identification of training needs and imparting the effective training has not been detailed in PDD. Organisation is ISO 9001:2000 and ISO 14001:2004 certified. Recognition of training need related to specific project activity need be provided.	CL-2	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.5.3.5. Does the project make provisions for meeting training and maintenance needs?	-	DR I	Same as in A.5.3.4.	-	OK
A.5.4. Brief statement of how anthropogenic emissions of GHG by sources are to be reduced by the proposed CDM project activity					
A.5.4.1. Is it stated how anthropogenic GHG emission reductions are to be achieved?	1	DR	Yes. The project activity would be generating electricity by substituting fossil fuel based electricity generation. The combustion of biomass has zero net emissions of carbon dioxide (CO2), due to the sequestration of produced CO2 by the plant. This would result in Carbon Di-oxide emission reduction by displacing electricity that would have been generated by fossil fuel. Refer A.4.4 of PDD.	OK	OK
A.5.4.2. Is the estimate of total anticipated reductions of tons of CO_2 equivalent provided?	1	DR	Yes. The estimated emission reductions over the 10-year fixed crediting period would be 570,340 tCO2e. Emission reduction calculations for the same need be provided and updation ensured as per recent available data of power plants. Refer A.4.4. of PDD.	CL-3	OK
A.5.4.3. Is this information indicated using the tabular format?	1	DR	Yes. The information on emissions reductions is indicated using the tabular format. Reference A.4.4. of PDD. Specific Year of emission reduction is not indicated.	CAR-6	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.5.5. Public funding of the project activity					
A.5.5.1. Is it indicated whether public funding from Parties included in Annex I is involved in the proposed project activity?	1	DR	The project will not receive any public funding from Parties included in Annex I. Refer A.4.5. of PDD.	OK	OK
A.5.5.2. If public funding is involved, is information on sources of public funding for the project activity provided in Annex 2, including an affirmation that such funding does not result on a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties?	1	DR	Not applicable since the ODA is not used for financing of project. Refer Annex 2 and section A.4.5 of PDD.	OK	OK
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. Are the title and the reference of the baseline methodology applicable to the project activity defined?	1 UNFCCC web site	DR I	Baseline methodology applied is ACM0006 named “Consolidated baseline methodology for grid connected electricity generation from biomass residues”. Version no.2 and date 3 February 2006 is not current.	CAR-7	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
B.1.2. Is the baseline methodology previously approved by the CDM Methodology Panel?	1	DR	Yes. It is UNFCCC Approved consolidated baseline methodology ACM 0006 Version 02. The current version is not indicated.	CAR-7	OK
B.1.3. Does the proposed project activity meet the applicability conditions of the methodology?	1	DR	Detailed Justification as per applicability requirements of the methodology is indicated in B.2. of PDD.	OK	OK
B.2. Description of how the methodology is applied in the context of the project activity					
B.2.1. Is the baseline methodology the one deemed most applicable for this project and is the appropriateness justified?	1 ACM 0004	DR	The applicability of approved methodology is indicated to be fulfilling the criteria indicated in Approved baseline methodology ACM0006. It's appropriateness and justification with reference to choice of baseline methodology and conclusion is indicated in PDD.	OK	OK
B.3. Description of how the anthropogenic GHG emissions by sources are reduced below those that would have occurred in the absence of the proposed project activity					
B.3.1. Is the proposed project activity additional?	1	DR	ACM 0006 requires stepwise assessment of additionality detailed in the "Tool for the demonstration and assessment of additionality". This is evident B.3. of PDD. There is no reference of Version no. and date for "Tool for the demonstration and assessment of additionality".	CAR-8	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
B.3.2. Are national policies and circumstances relevant to the baseline of the proposed project activity summarised?	-	I	There are no national policies and circumstances relevant to the baseline of the project activity summarised. These need be described or referred in PDD.	CL-4	OK
B.4. Description of the project boundary for the project activity					
B.4.1. Are the project's spatial (geographical) boundaries clearly defined?	1	DR	The spatial extent of the project boundary is clearly defined. Refer B.4. of PDD. Version no. of methodology followed is not the current one and hence this needs to be evaluated w.r.to latest version of ACM0006.	CAR-7	OK
B.4.2. Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly defined?	1	DR	Yes, these have been presented in the PDD and have been verified during site visit. Commissioning activities are under progress during site visit.	OK	OK
B.5. Details of the baseline and its development					
B.5.1. Is the date of completion provided?	1	DR	The date of completion of baseline study is indicated to be 24/04/2006.	OK	OK
B.5.2. Is contact information provided?	1	DR	Yes. Contact information for Mr. Ben Atkinson and Mr.Charu Gupta are provided in Annex 1. Tabular format has some blank spaces is interchanged. Refer Annex 1. Refer CAR-4	CAR-4	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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 and reasonable?	1	DR	The project activity staring date and the operational lifetime is clearly defined in Section C of PDD. Project activity starting date and Operational lifetime are indicated to be 11/05/2005 and 20 years respectively. Evidence of starting date is confirmed through internal circular for Bhumi Poojan.	OK	OK
C.1.2. 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)?	1	DR	Fixed crediting period is for the crediting length in years and months i.e. 10y 0 month. Refer C.2.2. of PDD. Fixed crediting period starting date is indicated to be 01/06/2006 in C.2.2.1. of PDD. Based on the site visit observation the project is yet to be commissioned.	CAR-9	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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 baseline methodology.*					
D.1.1. Is the monitoring methodology previously approved by the CDM Methodology Panel?	1	DR	Yes. Monitoring methodology ACM 0006 called 'Consolidated monitoring methodology for grid connected electricity generation from biomass residues' version 3 Date 19May 2006 is approved previously. Old version number 2 is indicated. This is also revised to version 4 before making request for registration.	CAR-10	OK
D.1.2. Is the monitoring methodology applicable for this project and is the appropriateness justified?	1	DR	The reasons for choosing this monitoring methodology and Justification for appropriateness are described. However this need be evaluated with the current monitoring methodology. Please refer D.1.1	CAR-10	OK
D.1.3. Does the monitoring methodology reflect good monitoring and reporting practices?	-	DR	Based on the formats available and the records being maintained it is observed that some formats for maintaining the data on daily and monthly basis pertaining to project monitoring are not evident.	CAR-11	OK
D.1.4. Is the discussion and selection of the monitoring methodology transparent?	-	DR	Yes. Refer D.1.3	-	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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?	-	DR I	The monitoring plan indicated in D.2.1. of the PDD for estimation of project emission is not as per AM0006/Version 03 19 May 2006. This needs to be corrected and evaluated w.r.to current version of methodology. New version of PDD need be considered for adoption.	CAR-12	OK
D.2.2. Are the choices of project GHG indicators reasonable?	-	DR	Refer D.2.1.	-	OK
D.2.3. Will it be possible to monitor / measure the specified project GHG indicators?	-	DR	Refer D.2.1	-	OK
D.2.4. Will the indicators give opportunity for real measurements of achieved emission reductions?	-	DR	Refer D.2.1	-	OK
D.2.5. Will the indicators enable comparison of project data and performance over time?	-	DR	Refer D.2.1	-	OK
D.3. Monitoring of Leakage *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?	-	DR	It is indicated to be Not applicable. This needs to be justified w.r.to current version of methodology	CAR-13	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.3.2. Have relevant indicators for GHG leakage been included?	-	DR	Refer D.3.1	-	OK
D.3.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	-	DR	Refer D.3.1	-	OK
D.3.4. Will it be possible to monitor the specified GHG leakage indicators?	-	DR	Refer 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?	-	DR	Monitoring Plan is not as evident in current version of methodology. Inclusion and exclusion of various parameters need be evaluated.	CAR-10	OK
D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	-	DR	Refer D.4.1	-	OK
D.4.3. Will it be possible to monitor the specified baseline indicators?	-	DR	Refer D.4.1	-	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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	The PDD describes the overall monitoring and control of project activity for General Manager. Effectiveness of a structured system for continuous implementation and Functional responsibility and authority for project management is not evident.	CL-5	OK
D.5.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	1	DR	Authority and responsibility for registration, monitoring, measurement and reporting is not clearly described.	CL-6	OK
D.5.3. Are procedures identified for training of monitoring personnel?	-	I	Procedures for training of monitoring personnel are not identified.	CL-7	OK
D.5.4. Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	-	I	Procedures for emergency preparedness for cases where emergencies can cause unintended emissions are not identified.	CL-7	OK
D.5.5. Are procedures identified for calibration of monitoring equipment?	-	I	Procedures for calibration of monitoring equipment are not identified.	CL-7	OK
D.5.6. Are procedures identified for maintenance of monitoring equipment and installations?	-	I	Procedures for maintenance of monitoring equipment and installations are not identified.	CL-7	OK
D.5.7. Are procedures identified for monitoring, measurements and reporting?	-	I	Procedures for monitoring, measurements and reporting are not identified.	CL-7	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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)	-	I	Procedures for control of records are not identified. Records related to day-to-day operations related to the specific project activity are not identified and provided.	CL-7	OK
D.5.9. Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	-	I	Procedures for dealing with possible monitoring data adjustments and uncertainties are not identified.	CL-7	OK
D.5.10. Are procedures identified for review of reported results/data?	-	I	Procedure for review or reported results/data is not identified.	CL-7	OK
D.5.11. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	-	I	Procedures for internal audits are not identified for GHG project compliance.	CL-7	OK
D.5.12. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	-	I	Procedures for project performance reviews and approval of data before submission internally or externally are not evidenced.	CL-7	OK
D.5.13. Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?	-	I	Procedures for corrective actions are not identified to provide for more accurate future monitoring and reporting.	CL-7	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
E. Calculation of GHG Emissions by Source *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. Predicted Project GHG Emissions *The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.*					
E.1.1. Are all aspects related to direct and indirect GHG emissions, including leakage, captured in the project design?	-	DR	Provide details of aspects related to direct and indirect GHG emissions i.e. Co-firing of Fossil fuel and biomass combustion.	CL-8	OK
E.1.2. Are the GHG calculations documented in a complete and transparent manner?	-	DR	Results are indicated. Detailed GHG calculations are not attached.	CAR-14	OK
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	-	DR	Yes. Refer E.1.2	-	OK
E.1.4. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	-	DR	Uncertainties in GHG emissions estimates are not addressed in the documentation.	-	OK
E.1.5. Have all relevant greenhouse gases and source categories listed in Kyoto Protocol Annex A been evaluated?	-	DR	The GHG gases and the source categories have not been listed or referred but the new PDD format will cover all these sources.	-	OK
E.1.6. Are uncertainties of external data sources for emissions reduction estimated?	-	DR	Since the external data is being taken from official sources, the Uncertainties are limited.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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.*					
E.2.1 Are potential leakage effects beyond the chosen project boundaries properly identified?	-	DR	It is indicated to be Not applicable. These need be evaluated w.r.to current version of methodology.	CAR-10	OK
E.2.2 Have these leakage effects been properly accounted for in calculations?	-	DR	Reference E.2.1	-	OK
E.2.3. Does the methodology for calculating leakage comply with existing good practice?	-	DR	Reference E.2.1	-	OK
E.2.4. Are the calculations documented in a complete and transparent manner?	-	DR	Reference E.2.1	-	OK
E.2.5. Have conservative assumptions been used when calculating leakage?	-	DR	Reference E.2.1	-	OK
E.2.6. Are uncertainties in the leakage estimates properly addressed?	-	DR	Reference E.2.1	-	OK
E.3. Baseline Emissions *The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.*					
E.3.1 Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for baseline emissions?	-	DR	Yes. The baseline boundaries are clearly defined.	OK	OK
E.3.2 Are the GHG calculations documented in a complete and transparent manner?	-	DR	E.6. GHG calculations are not attached with PDD	CL-9	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
E.3.3 Have conservative assumptions been used when calculating baseline emissions?	-	DR	Description and justification for conservative assumptions when calculating baseline emissions is evident in PDD. Same need to be verified by evaluation of GHG calculations	CL-10	OK
E.3.4 Are uncertainties in the GHG emission estimates properly addressed in the documentation?	-	DR	Uncertainties in the GHG emission are not addressed.	CL-11	OK
E.3.5. Have the project baseline(s) and the project emissions been determined using the same appropriate methodology and conservative assumptions?	-	DR	Yes. The project baseline(s) and the project emissions been determined using the same appropriate methodology.	OK	OK
E.4 Emission Reductions **Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.**					
E.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	-	DR	Yes. Refer E.6	OK	OK
F. Environmental and Social Impacts *Documentation on the analysis of the environmental and social impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.*					
Has an analysis of the environmental and social impacts of the project activity been sufficiently described?	PDD	I	Section F.1 of PDD. No negative environmental impacts are identified. Air emissions, Solid Waste disposal and discharge to water are described. Consent to operate under Air Act & Water Act has been obtained which includes the CDM activity.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	-	I	NO. At present EIA is not mandatory in India	OK	OK
Will the project create any adverse environmental or social effects?	-	I	No.	OK	OK
Are transboundary environmental and social impacts considered in the analysis?	-	I	No.	OK	OK
Have identified environmental and social impacts been addressed in the project design?	-	I	The environmental impacts have been addressed in the project design. Refer F.1.	OK	OK
Does the project comply with environmental legislation in the host country?	-	I	Compliance with reference to environmental legislation have been verified during site visit.	OK	OK
G. Stakeholder Comments *The validator should ensure that a stakeholder comments have been invited and that due account has been taken of any comments received.*					
Have relevant stakeholders been consulted?	-	DR I	Yes. The stakeholder meeting has been conducted on 23.06.2006 attended by local farmers. The minutes of the meeting of stake the project participant has maintained holders meeting.	OK	OK
Have local stakeholders used appropriate media to invite comments?	-	DR I	Local newspapers Hindustan (Hindi) dated 18.04.2006 has been used for inviting local stakeholders.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
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?	-	I	As per host country regulations it is not mandatory for stakeholder consultations.	OK	OK
Is a summary of the stakeholder comments received provided?	-	DR	The project participant has maintained the minute of stakeholders meeting.	OK	OK
Has due account been taken of any stakeholder comments received?	-	DR	Stakeholders have expressed positive comments on project activity. This is verified during site visit	OK	OK

TABLE 3 BASELINES AND MONITORING METHODOLOGIES ACM0006

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Baseline Methodology					
1. 1. Applicability					
1.1.1. Does the project activity uses no other biomass types other than biomass residues facility?	2	DR I	Yes. The PDD has included bagasse and rice husk.	OK	OK
1.1.2. Are these biomass residues are predominant fuels used in the project plant?	2	DR I	Bagasse and Rice husk are the predominant fuels used in the project plant.	OK	OK
1.1.3. Are some fossil fuels co fired in the project plant?	2	DR I	No, fossil fuels are not co-fired in the project plant.	OK	OK
1.1.4. Shall the project result in an increase of the processing capacity of raw input (e.g. sugar, rice, logs, etc.) or in other substantial changes (e.g. product change) in this process;		DR I	No increase in processing capacity is due to project plant.	OK	OK
1.1.5. Is the biomass used by the project facility stored for more than one year?		I	No the biomass used in the project facility is not stored for more than one year.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1.1.6 Is a significant energy quantity, except from transportation of the biomass, are required to prepare the biomass residues for fuel combustion, i.e. projects that process the biomass residues prior to combustion (e.g. esterification of waste oils)?		I	No energy quantity is used for the preparation of biomass residue.	OK	OK
1.1.7. Is the methodology for the combinations of project activities and baseline scenarios identified in Table 1 indicated in ACM 0006 Version 3.		DR I	Project uses applicable Baseline Scenario 12 and 10. Also refer CAR-7 and CAR-10	-	OK
1.1.8 Is the baseline methodology used in conjunction with the approved consolidated monitoring ACM0006 "Consolidated monitoring methodology for grid-connected electricity generation from biomass residues".		DR I	Current Version no. Is not referred. Refer CAR-7	CAR-7	OK
1. 2. Project boundary					
1.2.1. Does the project boundary include the CO2 emissions from on-site fuel consumption of fossil fuels, co-fired in the biomass power plant	2	DR I	No. There is no fossil fuel used in Boilers. This is verified during site visit.	OK	OK
1.2.2. Does the project boundary include the CO2 emissions from off-site transportation of biomass that is combusted in the project plant.	2	DR	Yes. This is verified during site visit.	OK	OK
1.2.3. Does the spatial extent of the project boundary encompasses the power plant at the project site the means for transportation of biomass to the project site (e.g. vehicles) and all power plants connected physically to the electrical system that the CDM power plant is connected to.		DR I	Yes.	OK	OK
1.2.3. Does the project boundary includes the emissions as per Table 2 of methodology.	2	DR	Provide emissions as per Table 2 of methodology.	CAR-15	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1.3. Identification of alternative baseline scenarios					
1.3.1. Is the baseline scenario chosen as per Table 1 of ACM0006 Version 3	2	DR	Current Version is not refered or indicated in PDD.	CAR-7	OK
1.3.2. Has the most plausible baseline scenario for the power generation indicated from P1 to P6?		DR I	Yes. P4 is considered most plausible base line scenario and is used for power generation.	OK	OK
1.3.2. In case the proposed project activity is the cogeneration of power and heat, have the project participants defined the most plausible baseline scenario for the generation of heat indicated from H1 to H8?	2	DR I	Yes, H4 is used.	OK	OK
1.4. Additionality					
1.4.1. Was the additionality of the project activity demonstrated and assessed using the latest version of the “Tool for demonstration and assessment of addiotionality”?	2	DR	Yes. Version no. Is not the current one.	CAR-7	OK
1.5 Project Emissions					
1.5.1. Are the project emissions determined according to Table 2 of ACM 0006 Version 3	2	DR	No, Table 2 of the ACM0006 for determination of project emissions is not used.	CL-12	OK
1.5.2. Does the value for oxidation factor come from a reliable source?	2	DR	Yes. The value for oxidation factor is taken from IPCC.	OK	OK
1.6. Baseline Emissions					
1.6.1. Were the baseline emissions determined considering the efficiency of heat and power generation equipments ?	2	DR	Yes. Efficiency is being considered as the power generated is being directly measured whereas in case of heat the efficiency of generation equipment is included.	OK	OK
1.6.2. Were the Emissions Factor for displaced electricity calculated as in ACM0002?	2	DR	Yes. Emission factor for displaced electricity is calculated as per ACM0002.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1.7. Leakage					
1.7.1. Were the leakage emissions determined?	2	DR	Leakage emissions are considered to be nil.	OK	OK
1.8. Emission Reduction					
1.8.1. Did the emissions reductions were determined according to the formula $ER_y = BE_{y-} - PE_y$?	2	DR	Yes.	OK	OK
1.8.2. Were all values chosen in a conservative manner and was the choice justified?	2	DR I	Emission factor set / used by PP for emission reduction is not conservative. CEA emission factor published and publicly available for 2004-05 is 0.75 whereas EF used by PP is 0.924.	CAR-16	OK
2. Monitoring Methodology					
2.1. Applicability					
2.1.1. Is the monitoring methodology in conjunction with Consolidated Monitoring Methodology for grid connected electricity generation from biomass residues ACM0006 Version3?	2	DR I	Yes. Refer Car-7 and CAR-10	-	OK
2.2. Monitoring Methodology					
2.2.1. Is electricty generation from project activity being monitored?	2	DR I	Yes. This is verified during site visit. Refer data sheet for 13 and 14th June,2006.	OK	OK
2.2.2. Is the monitoring of data evident for recalculation of operating margin as per ACM0002?	2	DR	It was ex-ante determination of Emission factor. This has been changed to ex-post subsequently and host country government 's data of CEA data is used for calculating emission reductions.	OK	OK
2.2.3. Is the monitoring of data evident for recalculation of build margin as per ACM0002?	2	DR	Data is taken from CEA and from Regional Electricity Board.	OK	OK
2.2.4. If applicable is the data needed to calculate, carbon dioxide emissions from fuel combustion due	2	DR	Fossil fuel is not being used. This is verified during site visit.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
to co-firing fossil fuels used in the project plant or in boilers operated next to the project plant or in boilers used in the absence of the project activity being monitored?			site visit.		
2.2.5. If applicable is the data needed to Calculate methane emissions from natural Decay or burning of biomass in the absence of the project activity being monitored?	2	DR	No. Data is not needed to be calculated for methane emissions as indicated in ACM0006. Justification for exclusion is also indicated in PDD.	OK	OK
2.2.6. If applicable is the data needed to calculate leakage effects from fossil fuel consumption outside the project boundary being monitored?		DR	No data needed to calculate leakage effects from fossil fuel consumption outside the project boundary	OK	OK
2.3. Quality Control (QC) and Quality Assunrance (QA) Procedures					
2.3.1. Did all measurements use calibrated measurement equipment that is regularly and checked for its functioning?	2	DR	There is no reference for use of the measurement through calibrated equipments.	CL-13	OK
2.3.2. Are all parameters indicated in the QA/QC table as indicated in ACM0006?		DR	Yes, all five parameters are indicated in the QA/QC table indicated in ACM0006. Current version number is to be ensured.	CAR-10	OK
2.3.3 Is the exclusion of parameters not indicated for QA/QC justified?		DR	There is no exclusion of parameters for QA/QC.	OK	OK

Table 4 Legal requirementes**CHECKLIST QUESTION**	**Ref.**	**MoV***	**COMMENTS**	**Draft Concl**	**Final Concl**
1. Legal requirements					
1.1. Is the project activity environmentally licensed by the competent authority?	Consent to establish	DR	Yes. The project activity is environmentally licensed by the UPPCB, the competent authority.	OK	OK
1.2. Are the conditions of the environmental license being met?	Consent to establish	DR	Yes. Environmental license conditions are being complied.	OK	OK
1.3 Are the conditions of the Designated National Authority being met?	Approval by DNA	DR	DNA approval from host country India is received and submitted to DOE, DSCL Energy Services Company Limited a project participant is not included in DNA approval of host country. DNA approval from UK needs to be provided.	CAR-3	OK

Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-1 A.2 indicates description of project activity. Purpose of the project activity is not defined in precise manner. Refer A.2.	A.2.1. / Table 2	The project proposes to reduce GHG emissions by displacing the fossil fuel dominated grid based electricity with biomass based renewable electricity. Details provided in section A.2. of the PDD. The PDD revision date is 07/02/2007.	Response to CAR-1 is satisfactory and hence the Corrective Action Request is closed.
CAR-2 Yes. According to project participants, the project activity contributes to sustainable development through the following sustainable indicators stipulated by the Government of India. These indicators are as below: □ Contribution of social well-being. □ Contribution to economic well-being □ Contribution to environmental well-being. These indicators with reference to the DSCL project activity have been described in the A.2 of PDD. It is required to dicuss how the social and economic contribution is related to the specific project activity.	A.2.2./ Table 2	The contribution of the project activity with reference to the employment generated and economic development of the area has been provided in section A.2. of the PDD.	Response to CAR-2 is satisfactory and the Corrective Action Request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-3 DNA approval from host country India is received and submitted to DOE. DNA approval from UK needs to be provided.	A.3.2./Table 3 2 & 1.3/ Table 4	The project has received the DNA approval from host country India and UK. The approvals have been sent to validators. New DNA approval from India dated 22.12.2006 includes name of both project participants.	DNA approval from UK is evident. Response to CAR-3 is found satisfactory and hence the Corrective Action Request is closed.
CAR-4 Yes. There are three Private entities involved listed, these are (1) DCM Shriram Consolidated Limited (India) (2) DSCL Energy Services Company Limited (India), & (3) Agrinergy Limited. (UK) The involvement and conditions w.r.to these need be indicated in PDD and provided to DOE.	A.4.1./ Table 2	DCM Shriram Consolidated Ltd. is the project owner, and DSCL Energy Services Company Ltd. and Agrinergy Ltd. are CDM project developers. Details have been provided in the PDD.	Response to CAR-4 is found satisfactory and hence the Corrective Action Request is closed.
CAR-5 Yes. Some of the field in the contact information provided in Annex 1 are not filled.	A.4.2./ Table 2	The information is not available for empty fields and these have been marked with a dash.	Response to CAR- 5 is found satisfactory and the Corrective Action Request is closed.
CAR-6 Yes. The information on emissions reductions is indicated using the tabular format. Reference A.4.4.1 of PDD. Specific Years of emission reduction are not indicated.	A.5.4.3./ Table 2	The specific year of estimated emissions reductions have been provided in the PDD.	Response to CAR-6 is found satisfactory and hence the Corrective Action Request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-7 Yes. Baseline methodology applied is ACM0006 named "Consolidated baseline methodology for grid connected electricity generation from biomass residues". Version no.2 and date 3 February 2006 is not current.	B.1.1./ Table 2	Approved consolidated baseline methodology ACM0006 Version 04, 02 November 2006 "Consolidated baseline methodology for grid-connected electricity generation from biomass residues" is applied to the project activity. The PDD revision date is 07/02/2007.	Response to CAR-7 is found satisfactory and hence the Corrective Action Request is closed.
CAR-7 Yes. It is UNFCCC Approved consolidated baseline methodology ACM 0006 Version 02. The current version is not indicated.	B.1.2./ Table 2	UNFCCC approved consolidated baseline methodology ACM0006 version 04 02 November 2006, the current version has been used.	Response to CAR-7 is found satisfactory and hence the Corrective Action Request is closed.
CAR-7 The spatial extent of the project boundary is clearly defined. Refer B.4. of PDD. Version no. of methodology followed is not the current one and hence this needs to be evaluated w.r.to latest version of ACM0006.	B.4.1./ Table 2	The spatial extent of the project boundary is in agreement with the latest methodology ACM0006 version 04-02 November 2006. The details have been provided in section B.3 of the PDD.	Response to CAR-7 is found satisfactory and hence the Corrective Action Request is closed.
CAR-7 Current Version no. Is not referred.	1.1.8./ Table 3	The monitoring methodology has been used in agreement with the current version of ACM0006 i.e. version 04-02 November 2006	Response to CAR-7 is found satisfactory and hence the Corrective Action Request is closed.
CAR-7 Current Version no. Is not referred. in PDD.	1.3.1/Table 3 & 1.4.1./ Table 3	The version has been updated to 04.	Response to CAR-7 is found satisfactory and hence the Corrective Action Request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-8 ACM 0006 requires stepwise assessment of additionality detailed in the "Tool for the demonstration and assessment of additionality". This is evident B.3. of PDD. There is no reference of Version no. and date for "Tool for the demonstration and assessment of additionality".	B.3.1./ Table 2	"Tool for the demonstration and assessment of additionality", version 02 28 November 2005 has been used to demonstrate additionality.	Response to CAR-8 is found satisfactory and hence the Corrective Action Request is closed.
CAR-9 Fixed crediting period is for the crediting length in years and months i.e. 10y 0 month. Refer C.2.2. of PDD. Fixed crediting period starting date is indicated to be 01/06/2006 in C.2.2.1. of PDD. Based on the site visit observation the project is yet to be commissioned.	C.1.2./ Table 2	The project commissioning date has been rescheduled and details have been provided to validators during site visit.	With the requirement that starting of crediting period needs to be after the registration of CDM project activity. This need be considered accordingly. Response to CAR-9 is found satisfactory and hence the Corrective Action Request is closed.
CAR-10 Yes. Monitoring methodology ACM 0006 called 'Consolidated monitoring methodology for grid connected electricity generation from biomass residues' version 3 Date 19May 2006 is approved previously. Old version number 2 is indicated.	D.1.1./ Table 2	The monitoring methodology ACM0006 version 04 02 November 2006 has been used.	Response to CAR-10 is found satisfactory and hence the Corrective Action Request is closed. At the time of closure the version 03 is also changed to version 4 hence required changes have been done accordingly.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-10 The reasons for choosing this monitoring methodology and Justification for appropriateness are described. However this need be evaluated with the current monitoring methodology. Please refer D.1.1	D.1.2./ Table 2	The monitoring methodology ACM0006 version 04-02 November 2006 has been used.	Response to CAR-10 is found satisfactory and hence the Corrective Action Request is closed.
CAR-10 Monitoring Plan is not as evident in current version of methodology. Inclusion and exclusion of various parameters need be evaluated.	D.4.1./ Table 2	The monitoring plan has been established in agreement with ACM0006 version 04-02 November 2006 and the details have been provided in section B.6.1 of the PDD.	Response to CAR-10 is found satisfactory and hence the Corrective Action Request is closed.
CAR-10 It is indicated to be Not applicable. These need be evaluated w.r.to current version of methodology.	E.2.1./ Table 2	The leakage effects have been updated w.r.t. ACM0006 version 04-02 November 2006 in sections B.6.1 of the PDD.	Response to CAR-10 is found satisfactory and hence the Corrective Action Request is closed.
CAR-10 Yes, all five parameters are indicated in the QA/QC table indicated in ACM0006. Current version number is to be ensured.	2.3.2. /Table 3	The QA/QC procedures are as per current methodology ACM0006 version 04-02 November 2006	Response to CAR-10 is found satisfactory and hence the Corrective Action Request is closed.
CAR-11 Based on the formats available and the records being maintained it is observed that some formats for maintaining the data on daily and monthly basis pertaining to project monitoring are not evident.	D.1.3./ Table 2	The formats for data monitoring as per current methodology have been established and details provided to validators.	Response to CAR-11 is found satisfactory and hence the Corrective Action Request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-12 The monitoring plan indicated in D.2.1. of the PDD for estimation of project emission is not as per AM0006/Version 03 19 May 2006. This needs to be corrected and evaluated w.r.to current version of methodology. New version of PDD need be considered for adoption.	D.2.1./ Table 2	The monitoring plan for the project is designed as per current version (version 04-02 November 2006) of ACM0006 and has been put in section B.7.1 of the PDD.	Response to CAR-12 is found satisfactory and hence the Corrective Action Request is closed.
CAR-13 It is indicated to be Not applicable. This needs to be justified w.r.to current version of methodology i.e. Version 3.	D.3.1./ Table 2	The leakage effects have been updated w.r.t. ACM0006 version 04-02 November 2006 in sections B.6.1 of the PDD.	Response to CAR-13 is found satisfactory and hence the Corrective Action Request is closed.
CAR-14 Results are indicated. Detailed GHG calculations are not attached.	E.1.2./ Table 2	The detailed calculations as per ACM0006 version 04-02 November 2006, have been provided to the validators.	Response to CAR-14 is found satisfactory and hence the Corrective Action Request is closed.
CAR-15 Provide emissions as per Table 2 of methodology.	1.2.3./ Table 3	The emissions provided are as per table 2 of ACM0006 version 04-02 November 2006	Response to CAR-15 is found satisfactory and hence the Corrective Action Request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CAR-16 Emission factor set / used by PP for emission reduction is not conservative. CEA emission factor published and publicly available for 2004-05 is 0.75 whereas EF used by PP is 0.924.	Table 3 1.8.2	Whilst the previous emission factor was determined as per the ACM0002 guidelines using published data, this has now been changed to the CEA published data for the purposes of calculating estimated CERs. However we do believe that whilst the CEA CEF is conservative it is not transparent. We therefore do not expect to be forced to follow a CEA number during the ex-post calculation of the CEF but saying this we are willing to use CEA or any other appropriate calculation by a national body if it is deemed to meet the requirements of the methodology and is acceptable to the DOE and EB at the time of verification.	Response to CAR-16 is found satisfactory and hence the Corrective Action Request is closed.
CL-1 The project is located at Village Ajbapur, P.O. Mullapur District Lakhimpur Kheri in Uttar Pradesh , India. Unique identification of the project activity such as plot number/khasra no. is not indicated in PDD	A.5.1.4./ Table 2	The khasra no. of the project activity has been put in section A.4.1.4 of the PDD.	Response to CL-1 is found satisfactory and hence the clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-2 System of identification of training needs and imparting the effective training has not been detailed in PDD. Organisation is ISO 9001:2000 and ISO 14001:2004 certified. Recognition of training need related to specific project activity need be provided.	A.5.3.4./ Table 2	The system for identification of training needs and imparting the effective training has been detailed in section A.4.3. of the PDD.	Response to CL-2 is found satisfactory and hence the clarification request is closed.
CL-3 Yes. The estimated emission reductions over the 10-year fixed crediting period would be 756,260 tCO2e. Emission reduction calculations for the same need be provided and updation ensured as per recent available data of power plants. Refer A.4.4.1. of PDD.	A.5.4.2./ Table 2	The emission reductions have been estimated as pet the recent available data of power plants and published through CEA in host country. The value has been estimated as 570,340 tCO2e over the 10-year fixed crediting period. The details have been provided to the validators.	Response to CL-3 is found satisfactory and hence the clarification request is closed.
CL-4 There are no national policies and circumstances relevant to the baseline of the project activity summarised. These need be described or referred in PDD.	B.3.2./ Table 2	There are no national policies relevant to the baseline and the sugar factories in India are not required to install high pressure boilers for grid based electricity generation. This has been mentioned in section B.5. in sub-step 1-b of PDD.	Response to CL-4 is found satisfactory and hence the clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-5 The PDD describes the overall monitoring and control of project activity for General Manager. Effectiveness of a structured system for continuous implementation and Functional responsibility and authority for project management is not evident.	D.5.1./ Table 2	The detailed monitoring plan has been established and included in the PDD in section B.7.1 and B.7.2. It gives the details of functional responsibility and authority.	Response to CL-5 is found satisfactory and hence the clarification request is closed.
CL-6 Authority and responsibility for registration, monitoring, measurement and reporting is not clearly described.	D.5.2./ Table 2	The GM of the Plant is responsible for the CDM Project management. This is evident in section B.7.2 of the PDD. Hence the GM is responsible for monitoring, measurement and reporting.	Response to CL-6 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for training of monitoring personnel are not identified.	D.5.3./ Table 2	The training needs of the monitoring personnel have been identified and the details are provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for emergency preparedness for cases where emergencies can cause unintended emissions are not identified.	D.5.4./ Table 2	The emergency situations have been identified during site visit. The details have been included in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed. Identification of emergency situations has been included.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-7 Procedures for calibration of monitoring equipment are not identified.	D.5.5./ Table 2	*"The meters used for data recording will be calibrated annually as per the current practice and they will be maintained as per the instructions provided by their suppliers.*" The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for maintenance of monitoring equipment and installations are not identified.	D.5.6./ Table 2	*"The meters used for data recording will be calibrated annually as per the current practice and they will be maintained as per the instructions provided by their suppliers.*" The details have been provided in section B.7.2 of the PDD.	Response to CL-7is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for monitoring, measurements and reporting are not identified.	D.5.7./ Table 2	*"The organisation structure along with the associated responsibilities has been established."* The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for control of records are not identified. Records related to day-to-day operations related to the specific project activity are not identified and provided.	D.5.8./ Table 2	*"The organisation structure along with the associated responsibilities has been established."* The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-7 Procedures for dealing with possible monitoring data adjustments and uncertainties are not identified.	D.5.9./ Table 2	*"The meters used for data recording will be calibrated annually as per the current practice and they will be maintained as per the instructions provided by their suppliers. Hence there are no uncertainties or adjustments associated with data to be monitored."* The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedure for review or reported results/data is not identified.	D.5.10./ Table 2	"The reports will be verified by the plant GM and the DSCL management will review them during quarterly review meetings." The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for internal audits are not identified for GHG project compliance.	D.5.11./ Table 2	Procedure for internal audits has been established. The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-7 Procedures for project performance reviews and approval of data before submission internally or externally are not evidenced.	D.5.12./ Table 2	"The reports will be verified by the plant GM and the DSCL management will review them during quarterly review meetings." The details have been provided in section B.7.2 of the PDD.	Response to CL-7 is found satisfactory and hence the clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-7 Procedures for corrective actions are not identified to provide for more accurate future monitoring and reporting.	D.5.13./ Table 2/ Table 2	*"The audit team will enlist the modifications / corrective actions required, if any, in more accurate monitoring and reporting."* The details have been provided in section B.7.2 of the PDD.	Revised PDD mentions these to be enlisted by the audit team. Response to CL-7 is found satisfactory and hence the clarification request is closed.
CL-8 Provide details of aspects related to direct and indirect GHG emissions i.e. Co-firing of Fossil fuel and bio-mass combustion.	E.1.1./ Table 2	No fossil fuel will be co-fired with biomass in the project plant. This is evident in section B.6.1.	Site visit interactions and the arrangements confirm the statement. Response to CL-8 is found satisfactory and hence the clarification request is closed.
CL-9 E.6. GHG calculations are not attached with PDD	E.3.2./ Table 2	The GHG calculations have been provided to validators.	GHG calculations have been received and the same is found and consistent with values provided in PDD. Response to CL-9 is found satisfactory and hence the clarification request is closed.
CL-10 Description and justification for conservative assumptions when calculating baseline emissions is evident in PDD. Same need to be verified by evaluation of GHG calculations.	E.3.3./ Table 2	The same assumptions have been used to estimate the GHG emissions.	Response to CL-10 is found satisfactory and hence the clarification request is closed.
CL-11 Uncertainties in the GHG emission are not addressed.	E.3.4./ Table 2	There are no uncertainties related to GHG emissions, since data from reliable sources is used.	Response to CL-11 is found satisfactory and hence the clarification request is closed.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 2/3/4	Summary of project owner response	Validation team conclusion
CL-12 No, Table 2 of the ACM0006 for determination of project emissions is not used.	1.5.1. / Table 3	Table 2 of ACM0006 version 04-02 November 2006 has been used to determine the project emissions. Refer section A.4.4. of PDD.	Revised PDD includes the details as indicated in Table 2 of the ACM 0006 for determining project emission. Response to CL-12 is found satisfactory and hence the clarification request is closed.
CL-13 There is no reference for use of the measurement through calibrated equipments.	2.3.1. / Table 3	Refer section B.7.2. of the PDD.	Calibration of equipments is indicated to be on yearly frequency. It is indicated that this practice is followed currently. Response to the CL-13 is found satisfactory and the Clarification request is closed.

1- GUIDELINES FOR COMPLETING CDM-PDD – Version 06
2- APPROVED CONSOLIDATED BASELINE AND MONITORING METHODOLOGY FOR GRID-CONNECTED ELECTRICITY GENERATION FROM BIOMASS RESIDUES ACM0006 – Version 04 – 02 November 2006
3- APPROVED CONSOLIDATED METHODOLOGY ACM0002 – Version 06 – 19 May 2006
4- TOOL FOR THE DEMONSTRATION AND ASSESSMENT OF ADDITIONALITY – Version 02 – 28 November 2005