
VALIDATION REPORT

**Shree Chhatrapati Shahu Co-operative
Sugar Factory Ltd.**

**SHREE CHHATRAPATI SHAHU RE
PROJECT**

SGS Climate Change Programme

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SHREE CHHATRAPATI SHAHU RE PROJECT	SGS Climate Change Programme
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Summary

SGS India Pvt. Ltd., an affiliate of SGS United Kingdom Ltd. has made a validation of the CDM project activity "SHREE CHHATRAPATI SHAHU RE PROJECT", 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 project falls under small scale category and scope 1. Energy Industries (Renewable/ Non-renewable sources).

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

The overall validation process, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (UK.PP.12 issue 3 dated 19/01/2007).

The first output of the validation process is a list of Corrective Actions Requests and New Information Requests (CAR and NIR), presented in Annex 3 of this document. Taking into account this output, the project proponent revised its project design document.

In summary, it is SGS's opinion that the proposed CDM project activity correctly applies the baseline and monitoring methodology as mentioned in approved methodology adopted for the proposed project activity and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria.

Subject Group:		
CDM validation		Indexing terms
Work carried out by		
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Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO ₂	Carbon Dioxide
COP/MOP	Conference of parties serving as the meeting of parties to Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EIA	Environment Impact Assessment
FBC	Fluidized Bed Combustion
GHG	Green House Gas(es)
GWh	Giga watt hour
I	Interview
IPCC	Intergovernmental Panel on Climate Change
ISHC	International Stakeholder Consultation
kWh	Kilo watt hour
MEDA	Maharashtra Energy Development Agency
MoEF	Ministry of Environment and Forest
MoV	Means of Verification
MP	Monitoring Plan
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MW	Mega watt
MT	Metric Tonne
NIR	New Information Request
NGO	Non Government Organisation
NOC	No Objection Certificate
ODA	Official Development Assistance
PDD	Project Design Document
PLF	Plant Load Factor
PLR	Prime Lending Rate
UNFCCC	United Nations Framework Convention for Climate Change

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1 Introduction

1.1 Objective

Shree Chhatrapati Shahu Co-operative Sugar Factory Ltd. has commissioned SGS to perform the validation of the project: "SHREE CHHATRAPATI SHAHU RE PROJECT" with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

1.2 Scope

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

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

1.3 GHG Project Description

The proposed CDM project activity involves the installation of a new boiler and turbine generator at the sugar factory. This will enable the export of 7.43MW of electricity to the grid in the season and 10.69MW in the off-season. The project activity will establish a grid connection and the electricity supplied from the project activity, through the combustion of bagasse a renewable biomass material, would be expected to supplement existing and planned electricity generation from the grid, the majority of which is fossil fuel based. The project will result in replacing the fossil fuel which would have been used for producing the same quantity of power. The project activity is located at Kolhapur district of Maharashtra state in India.

Baseline Scenario:

Under the baseline scenario, there would have been more direct off-site emissions through burning of fossil fuel for producing the same amount of power that is supplied to the western grid.

With Project Scenario:

The project activity generates electricity and uses for in-house consumption and the rest is supplied to the western regional grid. The project activity enables supply of 7.43 MW and 10.69 MW in the on season and off-season respectively. This fulfils the electricity requirement which otherwise would have been fulfilled by generation from the western grid. Thus project activity replaces electricity generation from fossil fuel dominated western grid with generation of electricity from bagasse thus contributes to conservation of fossil fuel, a non-renewable natural resource and consequently reduces GHG

emissions.

Leakage:

As per the methodology AMS I D version 10 dated 23rd December 2006; applicable for the project activity, leakage is to be considered if the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity. However this is not the case for present project activity and hence no leakage is considered for the present CDM project activity.

Environmental & Social Impacts:

There are no negative environmental and social impacts expected with the project activity, the same has been cross-checked during local stakeholder consultation process by the local assessor during the validation site visit.

1.4 The names and roles of the validation team members

Name	Role
Mr. Sanjeev Kumar	Team Leader / Lead Auditor
Mr. Vikrant Badve	Assessor
Mr. Jimmy Sah	Local Assessor
Mr. Siddharth Yadav	Technical reviewer

Statement of Competence of team members are attached at Annex IV.

2 Methodology

2.1 Review of CDM-PDD and additional documentation

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

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

2.2 Use of the validation protocol

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

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

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

Checklist Question	Means of verification (MoV)	Comment	Draft and/or Final Conclusion
<i>The various requirements are linked to checklist questions the project should meet.</i>	<i>Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.</i>	<i>The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.</i>	<i>This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). New Information Request (NIR) is used when the validation team has identified a need for further clarification.</i>

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

2.3 Findings

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

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

information is required.

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:

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

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

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

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

2.4 Internal quality control

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

3 Determination Findings

3.1 Participation requirements

The host Party for this project is India. India has ratified the Kyoto protocol on 26th Aug 2002. A Letter of Approval from Indian DNA was not submitted by the project proponent. CAR (1) was raised asking project proponent to submit the Letter of approval from Indian DNA. Project proponent has received the Host country approval for the present project activity on 15th May 2007 issued by the Indian DNA (reference number 4/3/2007-CCC. This letter was checked and the project activity name indicated in the HCA and in section A.1 of the PDD was found same. CAR (1) was closed.

Project Proponent has identified United Kingdom as Annex 1 Participant country. The Letter of Approval from the UK DNA was received on 4th June 2007, the Letter of Approval has been submitted which was checked for the project activity name and found acceptable. Thus CAR (01) was closed.

3.2 Baseline selection and additionality

The project has applied baseline as mentioned in the small scale methodology AMS I D version 10 dated 23rd December 2006 for “Grid connected Renewable Electricity generation” as per Appendix B of the simplified modalities and procedures for small-scale CDM project activities. The project activity generates electricity from using bagasse as a fuel and thus replaces fossil fuel and contributes to conservation of fossil fuel, and fall under the category AMS I D of the appendix B.

The present CDM project activity will generate and use the electricity for in-house consumption and the rest will be supplied to the western regional grid. This will fulfil the electricity requirement which otherwise would have been fulfilled by the generation in the western grid which would be dominated by fossil fuel based power plants. The emission reductions achieved because of the project activity will be direct function of the amount of electricity supplied to the grid.

The project has adopted the Investment barrier for the present project activity which mentions the returns from the project activity along with the sensitivity analysis for the project activity. In order to get all the related documents on the basis of which the project was shown additional, CAR (13) was raised.

The project proponent has mentioned the investment with sensitivity analysis for the project activity. The benchmark for the project activity has been taken as prevailing PLR during the time of investment decision which was 11.5 %, this has been cross-checked by the local assessor against the bank document provided during the validation site visit. The project proponent has mentioned the IRR for the project activity both with and without CDM benefits. The IRR for the project activity without CDM benefits is 7.89 % while considering the CDM benefits it improves to 12.47%. While checking the investment and sensitivity analysis various assumptions like cost of bagasse as Rs. 1000/mt and the days of operation as 245 days which includes 180 days on-season and 65 off-season days; was also cross-checked during site visit and found acceptable. These assumptions were mentioned in the excel sheet giving the investment and sensitivity analysis.

The sensitivity analysis includes the effect on project IRR due to change in prices of biomass and due to change in days of operation. The excel sheet provides the breakage for days of operation for the number of on-season and off-season days. The calculations were checked by changing the price of biomass in the “Costs and Assumption” sheet and the days of operation in the “ER Electricity” sheet of the excel sheet. The values were cross-checked and found acceptable. The sensitivity analysis presents that project activity IRR without CDM benefits ranges minimum -7.99% to maximum of

11.03%. The least project IRR is when the price of bagasse is considered as Rs. 1200/mt and the number of days for operation are 180 days/year. The highest project IRR value in sensitivity analysis is 11.03% when the bagasse price is Rs. 800/mt and the number of days for operation is 250, still the value of IRR does not cross the benchmark value of 11.50%. Thus project proponent is bearing an investment risk by installing the project activity and hence it is additional.

The project proponent had initially mentioned that the old boilers used in the baseline project scenario would be sold in the market, but later they clarified with an undertaking that due to lack of potential buyers they have now decided to scrap the old boilers once the new boilers are commissioned and fully normalised. This was accepted and it will be checked further during verification that the boilers were scrapped.

Based on the above discussion it can be concluded that the project activity without CDM funds is not a financially viable alternative. Hence CAR (13) was closed.

CAR (09) was raised and project proponent was asked to discuss if any initial training was provided to the staff for the project activity. In response the project proponent provided the training certificates provided a list of company personnel who had been provided training for the project activity. This was acceptable and thus CAR (09) was closed.

The project proponent is claiming credits from 15th August 2007 or from date of registration whichever is later. The present project activity has chosen seven years renewable crediting period. This was verified during the discussion with the project proponent.

3.3 Application of Baseline methodology and calculation of emission factors

The present project activity was generating process steam and which is used for in-house consumption. The project has applied baseline methodology as mentioned in the small scale methodology AMS I D version 10 dated 23rd December 2006 for "Grid connected Renewable Electricity generation" as per Appendix B of the simplified modalities and procedures for small-scale CDM project activities.

It was mentioned in the PDD version 01 that the present project activity the Grid emission factor was calculated using the CEA data and the emission factor used was 0.934 tCO₂/MWh and the total emission reductions were 43,390 tonnes of CO_{2e} emission reductions per year. CAR (11) was raised and project proponent was clarified why CEA values have not been used and to provide the excel spread sheets for calculation of grid emission factor and emission reductions. The project proponent has submitted the excel sheets for calculation of emission reduction for the project activity. The excel sheets were checked for the values and assumptions used and were found acceptable. The rephrased version of PDD was checked for the emission reduction figure and same was found matched with excel spreadsheet figure; hence CAR (11) was closed.

The PDD version 1 under the section mentioned that installed capacity would be 12.5 MW while the export during the crushing season would be 7 MW while during the off-season it would be 10 MW, the project proponent under NIR (07) was asked to clarify the same. In response the project proponent clarified that the difference is due to the auxiliary consumption while the export values were estimated to be 7.43 MW during the crushing season and 10.69 MW during the off-season. The same has been mentioned in the revised PDD. Thus NIR (07) was closed.

The PDD version 1 did not mention about leakage due to transport of biomass for the project activity.

CAR (14) was raised and the project proponent was asked to discuss about leakage due to project activity and also mention the emissions if any fossil fuel is used for the project activity. In response the project proponent mentioned that no fossil fuel will be used for the project activity, while the emissions due to transport of biomass has been considered as project emissions and same had been indicated in the revised PDD. It was also checked that the project proponent has included biomass transport in the project boundary. The excel sheets for calculation of emissions due to transport of biomass has been checked and found acceptable. Also as per methodology AMS I D version 10 dated 23rd December 2006; leakage is to be considered when there is an equipment transfer from one place to another but this is not the case with present project activity hence no leakage from the transfer of equipment is not considered. Thus CAR (14) was closed.

3.4 Application of Monitoring methodology and Monitoring Plan

The present CDM project activity uses monitoring methodology AMS I D version 10 dated 23rd December 2006 for "Grid connected Renewable Electricity generation". The PDD clearly mentions that leakage is not consider in present project activity as methodology AMS I D version 10 mentions leakage due to project activity will be consider when there is an equipment transfer from one place to another but this is not the case with present project activity hence no leakage due to transfer of equipment for the project is considered. This was acceptable.

The project proponent did not mention the Quality Control and Quality Assurance procedures followed for the project activity. CAR (16) was raised and the project proponent was asked to submit the Roles and responsibility structure that would be followed for the project activity, also a clarification was sought as why the monitoring plan did not monitor the NCV of the biomass utilised for the project activity. The project proponent was also asked to clarify why the gross generation and auxiliary consumption of electricity were not included in the monitoring plan. In response the project proponent mentioned about the responsibility of Agrinergy for calculation of emission factor ex-post and clarified that the as co-firing would not be done in the project activity so they do not need to monitor the NCV of biomass used. The project proponent mentioned that they are ISO 9001:2000 certified and therefore they would have defined procedures for data recording. Thus CAR (16) was closed.

3.5 Project design

The PDD of the present project activity have been prepared in accordance with the guidelines for completing CDM-SSC-PDD version 04 and CDM-SSC-PDD template version 03.

It was found that section C.1.1 of version 01 of the PDD indicated 1st March 2006 as project activity starting date; but evidence for the same was not provided. CAR (10) was raised asking project proponent to provide an evidence for the starting date of the project activity. In response project proponent provided a copy of the letter of intent for the purchase of the Turbine Generator which mentioned the date as 9th January 2006 and same was mentioned in the revised PDD. The PDD was checked and the date mentioned was the same as mentioned on the intent for the purchase of the Turbine Generator. Thus CAR (10) was closed and 09th January 2006 was accepted as starting date for the project activity.

Operational lifetime of the project activity was mentioned as 20 years which was found acceptable after reviewing the project technology details mentioned in the purchase order of the project activity component. NIR (08) was raised asking project proponent to provide any documentary evidence that the present project technology will not be substituted or replaced by the more efficient technologies during the crediting period. Project proponent has submitted a letter of undertaking mentioning that the project technology will not be substituted or replaced by more efficient technology during the crediting period. This was accepted and NIR (08) was closed.

The PDD version 01 was not clear for the project boundary, it was not clear whether the total Western grid is considered in the project boundary or only western grid interconnection point is considered. CAR (15) was raised for the same. In response the project proponent revised the PDD and mentioned that the whole western grid is considered in the project boundary. Also project proponent has considered biomass transport within the project boundary. This was cross checked with the revised version of the PDD and found acceptable and thus CAR (15) was closed.

Project proponent in the PDD mentioned that project activity has not received any public funding from parties listed in Annex 1. NIR (02) was raised asking the project proponent to provide any documentary evidence that ODA was not used for the project activity. The project proponent has submitted an undertaking which states that no ODA was used for the project activity. This was acceptable and hence NIR (02) was closed.

3.6 Environmental Impacts

The project proponent in the PDD version 01 did not mention whether EIA has been carried for the project activity or not. CAR (12) was raised and the project proponent was asked to provide details whether EIA has been carried for the project activity or not, he was also asked to submit NOC form the MPCB required by the project activity. The project proponent in his response mentioned that Rapid EIA has been carried out for the project activity. The project proponent submitted the Consent to Operate provided by the MPCB. The consent was checked and found acceptable, thus CAR (12) was closed. Local stakeholder comments

3.7 Local stakeholder comments

The project activity involves setting up of 12.5 MW biomass based power project for electricity generation, which is used for in-house consumption and then the rest is exported to the western regional grid, the project proponent identified local administrative body, local population as local stakeholders for the project activity. NIR (03) was raised asking project proponent to clarify as who are the local stakeholders identified for the project activity by the project proponent. In response the project proponent mentioned that the local farmers supplying cane to the factor and the local municipality are the local stakeholders for the project activity and the summary of comments for the Local stakeholders meeting has been mentioned in the revised PDD. The revised PDD was checked for the comments and found acceptable. Thus NIR (03) was closed.

The PDD version 01 mentioned that the local stakeholders were intimated for the Local Stakeholder meeting by publishing a notice in local newspaper, the project proponent was asked to submit the copy of the newspaper clipping and NIR (04) was raised for the same. In response the project proponent provided the copy of the newspaper clipping which mentions about a local stakeholder consultation process to be carried out for the project activity. The summary of comments has also be mentioned which was cross-checked during discussions with the local stakeholder and found acceptable and hence NIR (04) was closed.

The PDD version 01 mentioned that a notice was published in the newspaper for inviting the comments from the public. NIR (05) was raised and the project proponent was asked to clarify whether publishing a public notice would suffice the need for local stakeholder consultation process. In response the project proponent clarified that not only the comment were invited but also a meeting of local stakeholders was carried out and the list of farmers interviewed was provided. The comments were cross checked during discussions with the stakeholders and found acceptable. Thus NIR (05) was closed.

The project proponent was asked to submit the copy of NOC from the local municipality as a evidence that the local body accepts the proposed project and CAR (06) was raised for the same. The project proponent in response provided a copy of NOC from Kagal Nagarparishad which mentions about the no objection for the proposed project activity. The NOC was checked and found acceptable, thus CAR (06) was closed.

4 Comments by Parties, Stakeholders and NGOs

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

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

The PDD and the monitoring plan for this project were made available on the SGS website <http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=236> and were open for comments from 22nd March 2007 to 20th April 2007. Comments were invited through the UNFCCC CDM homepage.

4.2 Compilation of all comments received

The project was up loaded for International stakeholder consultation (ISHC) for a period of 30 days and received no comment. Also no adverse comment received during local stakeholder consultation.

4.3 Explanation of how comments have been taken into account

No adverse comment was received for the project activity.

5 Validation opinion

SGS has performed a validation of the project: “SHREE CHHATRAPATI SHAHU RE PROJECT”. The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

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

By using bagasse as fuel for generation of electricity it leads to displacement of fossil fuel which would have otherwise been used. Thus the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the barrier analysis involving investment barrier which mentions the IRR for the project activity along with sensitivity analysis for the project activity demonstrates that the proposed project activity was 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. The project is still under construction stage. The project will likely achieve the estimated amount of emission reductions.

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

6 List of persons interviewed

Date	Name	Position	Short description of subject discussed
16/04/07	Mr. Ajit Kulkarni	Project proponent	Project additionality
16/04/07	Mr. D. R. Jadhav	Project incharge	Monitoring methodology for the project activity
16/04/07	Mr. Santosh Singh	Project Consultant	Project baseline and additionality
16/04/07	Mr. Dnyandeo S. Yejare	Local stakeholder	Local stakeholder consultation
16/04/07	Mr. Vilas Patil	Local stakeholder	Local Stakeholder consultation

7 Document references

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

/1/	Letter of Approval from Host Country
/2/	Letter of Approval from Annex 1 Country
/3/	Modalities of communication
/4/	PDD version 01 dated 17/02/2006
/5/	PDD version 02 dated 04/07/2007
/6/	PDD version 03 dated 25/07/2007
/7/	PDD version 04 dated 16/08/2007
/8/	IRR calculation and CER estimate

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

/1/	Letter of Indent to for purchase of turbo-generator for project activity
/2/	Bank Loan documents for the project activity
/3/	Consent to Establish from MPCB
/4/	PPA with MSEDCL
/5/	Letter of undertaking for no-use of ODA
/6/	List of Local Stakeholders interviewed
/7/	Declaration by the Local stakeholders
/8/	Copy of notice published in the newspaper
/9/	NOC from Kagal municipality
/10/	ISO certificate
/11/	Letter of Undertaking for no change in technology
/12/	Bagasse availability for the project
/13/	Training Certificates
/14/	Letter of Undertaking to scrap the old boilers

Annex 1: Local Assessment

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conc I	Final Conc I
12.1 To get copy Host Country Approval (HCA) letter from Project Proponent.	PDD		The Host Country approval from Indian DNA reference no 4/3/2007-CCC has been submitted along with a Letter of Approval from the Annex 1 country UK.	Y	Y
12.2 No ODA has been used for this project and to be confirmed during site visit.	PDD Annex 2		The project proponent has submitted an Undertaking which mentions that no ODA was utilised for the project activity.	Y	Y
12.3 The notice published in the newspaper for inviting local stakeholders comment.	PDD E.1		A copy of notice is submitted	Y	Y
12.4 The regulatory approval (consent to establish and operate the project) from the Pollution Control Board is required to to verify that local/legal requirements have been met.	PDD		The project proponent has submitted the cosent to establish provided by the MPCB	Y	Y
12.5 Local stakeholders' comments are required to be verified for any adverse comment. MoM of stakeholder consultation meeting Due account of stakeholder comments received required to be verified..	PDD E.1, E.2 and E.3		A list of satkeholders interviewed for the project activity has been submitted along with the comments for the project activity.	Y	Y
12.6 Project design engineering documents from the technology supplier are required to be checked. Copy of offer made/ specifications given by technology supplier.	PDD A.4		Purchase order for the Turbine Generator and boiler has been provided	Y	Y
12.7. It is required to be checked whether the project technology used is likely to be substituted by other or more efficient technologies within the project period.	PDD C.1.2		The project proponent has provided an undertaking that the technology would not be changed during the	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conc I	Final Conc I
			crediting period.		
12.8 Proof that EIA is not required for the specific project activity.	PDD D.1		Rapid EIA has been conducted and documents for the same has been submitted	Y	Y
12.9 Proof for starting date of the project activity.	PDD C.1		The letter of Intent for Turbine generator has been provided as a evidence for start date of the project activity.	Y	Y
12.10 Quality Assurance (QA) and Quality Control (QC) procedures for data monitoring.	PDD B.7.2		The company is ISO 9001:2000 certified and a copy of the same has been submitted	Y	Y
12.11 Power purchase agreement between MSEDCL and Project proponent.	PDD B.5		The PPA has been provided for the project activity.	Y	Y
12.12 Financial analysis for the project activity. IRR sheet, excel files, assumption for IRR.	PDD B.5		IRR calculation sheet has been provided	Y	Y
12.13 Training module / material used during training programme for the employees.	PDD B.7.2		The project proponent has submitted a list of employees who had been provided with training for the project activity.	Y	Y
12.14 Details about the boilers to be decommissioned after the project activity is commissioned.	PDD		The project proponent has mentioned that the decomissioned boiler may be sold in the market.	Y	Y
12.15 Purchase agreement for bagasse during the off-season.	PDD		The project proponent has submitted the copy of availability of biomass with nearby sugar factory.	Y	Y
12.16 Kindly clarify the total requirement of biomass			The project proponent has clarified that there is additional consumption of 12518 MT of biomass as auxiliary fuel	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Conc I	Final Conc I
			consumption for project activity in addition to the baseline requirement of 27500 MT of biomass.		
12.17 Leakage due to transport, distance from the purchaser of bagasse.	PDD		The emissions from transport have been included as project emissions	Y	Y
12.18 Why CEA Data has not been used.	PDD B.5		The Project proponent has agreed to use ex-post determination of CEA values for the project activity.	Y	Y
12.19 kindly clarify the agreement with buyer of CER as mentioned in the PDD.			The project proponent has mentioned that they are in agreement with an Austrian buyer.	Y	Y

Annex 2: Validation Protocol

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

REQUIREMENT	Ref	Mo V	Comment	Draft finding	Final Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	PD D	DR	This is a bilateral project. And as per section A.3 project participants are 1. Shree Chhatrapati Shahu Co-operative Sugar Factory Ltd (India) 2. Agrinergy Ltd (UK) The project will assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3.	Y	Y
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily.	PD D	DR	The project activity will contribute to sustainable development. Host Country Approval from Indian Designated National Authority for project proponent and Letter of approval from UK is to be provided by the project participants.	CAR 1	Y CAR 01 closed
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and	PD D/U	DR /	India has ratified the protocol on 26 th August 2002 and is allowed to participate.	Y	Y

REQUIREMENT	Ref	Mo V	Comment	Draft finding	Final Concl
are allowed to participate in CDM projects.	NFC CC We b- site	UN FC CC We b- site	(http://unfccc.int/parties_and_observers/parties/items/2109.php) UK has ratified the protocol on 31 st May 2002 and is allowed to participate. http://maindb.unfccc.int/public/country.pl?country=GB		
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario.	PD D	DR	The project activity results in reduction of CO ₂ emissions by replacing conventional fossil fuel by Biomass (Bagasse) in this case for production of electricity.	Y	Y
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available.	PD D	DR /U NF CC C We b- site	The project was listed on UNFCCC website from 22 nd March 2007 to 20 th April 2007. http://cdm.unfccc.int/Projects/Validation/DB/5RL6J9AM0DSSV1H0O5UNF3GP6GIOFB/view.html The project is also listed on SGS climate change website from 22 nd March 2007 to 20 th April 2007. http://www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=236 Number of comments received during web-	Pending	Y

REQUIREMENT	Ref	Mo V	Comment	Draft finding	Final Concl
			hosting period - 0		
1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance.	PD D	DR	The guidelines for completing the PDD as per version 04 and the template version 03 has been followed , for completing the PDD for present project activity except some pending closure of CARs and NIRs	Pending	Y
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA.	PD D	DR	No ODA has been utilised for the project nor does it result in diversion of any such funds. Evidence for the same is to be provided by the project proponent.	CAR 2	Y CAR 2 closed
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?	PD D	DR	Not relevant as the project is not an AR project.	Not applicable	
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects	PD D	DR	This is an SSC project which comes under category AMS I-D and hence table 9 is applicable.	Pending CARs/NIRs	Y All CARs/NIRs closed
1.10 Is the current version of the PDD	PD	DR	The PDD for the present project activity is	Pending	Y

REQUIREMENT	Ref	Mo V	Comment	Draft finding	Final Concl
complete and does it clearly reflect all the information presented during the validation assessment?	D		complete and it does reflect all the required information clearly except closure of pending CARs / NIRs		All CARs/NIRs closed
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	PD D	DR	Pending CARs / NIRs	Pending	Y All CARs/NIRs closed

Table 2 **Baseline methodology/ies (Ref: PDD Section B and Annex 3 and AM) Normal CDM projects only**

Table 3 **Additionality (Ref: PDD Section B and AM) Normal CDM projects only**

Table 4 **Monitoring methodology (PDD Section B and AM) Normal CDM Projects only**

Table 5 **Monitoring plan (PDD Annex 4) Normal CDM Project activities only**

Table 6 **Environmental Impacts (Ref PDD Section D and relevant local legislation) Normal CDM Project Activities only**

Table 7 Comments by local stakeholders (Ref PDD Section E) All CDM Project Activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	The project proponent has mentioned that relevant stakeholders comprising of local stakeholders, national stakeholders and international stakeholders have been identified for the present CDM project activity but section E.1 of PDD does not mention identified local stakeholders for the project activity.	NIR 3	Y NIR 3 closed
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	The media used to communicate the local stakeholders is in the form of a notice published on 31 st January 2007 in Indian Express (Pune edition) and Daily Sakal (local newspaper). Evidence for the same is required to submit.	NIR 4	Y NIR 4 closed
7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	Stakeholder consultation process is not required as per regulation/laws in host country. No information was provided in the PDD regarding the local stakeholder meeting. Evidence is required to check regarding 'Comments received' for project activity. Evidence needs to be checked during site visit	NIR 5	Y NIR 5 closed
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	No comments have been received by the local stakeholders so, the summary of stakeholder comments is not provided.	Pending NIR 5	Y NIR 5 closed

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Provide the copy of NOC from the local municipality.	CAR 6	Y CAR 6 closed
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	No comments have been received, so no action has been taken. Evidence for the same is required to be checked during the site visit.	Pending NIR 5 and CAR 6	Y Closed

Table 8 Other requirements All CDM project activities

CHECKLIST QUESTION	Ref .	MoV *	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PD D	DR	The project correctly applies the PDD template version 03.	Y	Y
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified.	PD D	DR	The PDD address the specific requirements	Y	Y
8.2 Technology to be Employed					
8.2.1 Does the project design engineering reflect current good practices?	PD D	DR	The project design reflects current good practices. Evidence is required to be provided for same. As per section A.2 of PDD the maximum export from project activity is 10 MW while the turbine capacity is 12.5 MW. Please clarify why there is difference in these two.	NIR 7	Y NIR 7 closed
8.2.2 Does the project use state of the art	PD	DR	The project uses high pressure configuration	Site visit	Y

CHECKLIST QUESTION	Ref	MoV	COMMENTS	Draft Concl	Final Concl
technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	D		for production of electricity using bagasse as a fuel. Evidence for the technology used needs to be checked during the site visit.		Evidence Provided
8.2.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PD D	DR	The Project technology will not be substituted by other or more efficient technologies during the crediting period. Evidence needs to be provided by the project proponent.	NIR 8	Y NIR 8 closed
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PD D	DR	The PDD mentions training being provided to the staff. Evidence for the same is required	CAR 9	Y CAR 9 Closed
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?	PD D	DR	The starting date of the project is clearly mentioned but the proof of the same is to be provided by the project proponent. The operational lifetime is clearly defined as 20 years.	CAR 10	Y CAR 10 Closed
8.3.2 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)?	PD D	DR	The crediting time is clearly defined as 7 years. But it was not clear how many times it will be renewed. It is renewable crediting period which is selected and it is reasonable.	Site visit	Y



CHECKLIST QUESTION	Ref .	MoV *	COMMENTS	Draft Concl	Final Concl
8.3.3 Does the project's operational lifetime exceed the crediting period.	PD D	DR	The projects operation lifetime is 20 years, this exceeds the first phase of renewable crediting period of 7 years.	Y	Y

Table 9 Additional requirements for SSC project activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
9.1 Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP.7 on the modalities and procedures for the CDM?	PDD	DR	The present CDM project activity is Shree Chhatrapati Shahu Renewable Energy Project in Maharashtra. The installed capacity of turbine is 12.5 MW which is less than 15 MW, and hence, It qualifies as a small scale CDM project activity as defined in paragraph 6 (c) of decision 17/CP .7	Y	Y
9.2 The project conforms to one of the categories listed in Appendix B to Annex II to Decision 21/CP8.	PDD	DR	Yes, AMS I-D version 10, 23 rd December 2006	Y	Y
9.3 The small scale project activity is not a debundled component of a larger project activity?	PDD	DR	The Small scale project activity is not a debundled component of a larger project as mentioned in the PDD. To be checked during the site visit.	Site visit	Y
9.4 PDD has been prepared in accordance with appendix A of Annex II to Decision 21/CP8	PDD	DR	The PDD has been prepared in accordance with the PDD template version 03, except for some pending CARs/NIRs	Pending	Y All CARs/NIR s closed
9.5 The project uses a simplified baseline and monitoring methodology specified in Appendix B. If not, they may propose changes to the meths or a new SSC	PDD	DR	The project uses simplified baseline and monitoring methodology AMS I-D. This is as per Appendix B.	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
project category					
9.6 Are the emission reductions determined in accordance with the methodology described?	PDD	DR	The Excel spreadsheet of the calculations needs to be provided by the project proponent. Why CEA data is not used for calculating the emission factor for grid needs to be explained.	CAR 11	Y CAR 11 Closed
9.7 Is there any bundling of SSC activities into one PDD? If so, does the monitoring plan consider sampling of activities? Refer to para 19 of Annex II. Also, note bundling provisions in SSC Briefing Note and SSC meths I C / I D and III D and Para 22e of Appendix B.	PDD	DR	There is no bundling of SSC activities into one PDD.	Y	Y
9.8 Is EIA required by host party? If not, none is required irrespective of SHC. If yes, has one been performed consistent with local requirements?	PDD	DR	The PDD does not discuss whether EIA has been carried or not for the present project activity. Provide a copy of Consent to Establish. Provide a copy of NOC from MPCB	CAR 12	Y CAR 12 Closed
9.9 The project results in emission reductions that are additional in accordance with the following requirements: <ul style="list-style-type: none"> (Para 26) The project is additional if emissions are reduced below those in the absence of the project. 	PDD	DR	The project will generate electricity using bagasse which is a renewable energy source and supply the same amount to western regional grid which is dominated by fossil fuel based power	Y	Y

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
<ul style="list-style-type: none"> (Para 27) Simplified baseline can be used; if not, baseline proposed shall cover all gases, sectors and sources listed in Annex A to the KP (Para 28) One or more barriers as detailed in attachment A to Appendix B to Annex II will be used to demonstrate that the project would not proceed without the CDM 			<p>plants. This will result in replacing the grid power generated mainly from fossil fuel based thermal power plants by the bagasse. Thus emissions will reduce below those would have been in the absence of the present project activity.</p> <p>The simplified baseline as per AMS.I.D version 10 dated 23rd December 2006 has been used for the project activity.</p> <ul style="list-style-type: none"> What was the operational lifetime of the decommissioned boilers and what will their future after decommissioning. Please explain more about pre-project activity scenario in section B.4 of PDD. Evidence is required for the days of operation (season days) considered in Emission reduction calculations, PLF, Bank PLR and cost of bagasse as mentioned in the PDD. Assumptions along with the excel sheet of IRR calculations is to be provided by the project proponent. PPA with MSEDCL is to be provided. Details of Agreement with the government buyer of certified emission reductions. 	<p>Y</p> <p>CAR 13</p>	<p>Y</p> <p>Y</p> <p>Evidence provided CAR 13 closed</p>

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<ul style="list-style-type: none"> It is not mentioned whether any loan has been taken for the project activity. If yes please provide documents for the same. 		
9.10 Leakage is calculated according to the provisions of the SSC methodologies in Appendix B.	PDD	DR	As there is no equipment transfer from any other location, as per SSC methodology AMS I-D no leakage is being considered, but the PDD mentions buying of bagasse during the off-season, hence project emissions due to transport of bagasse needs to be discussed. Also emissions due to use of fossil fuel needs to be monitor and considered in the calculations.	CAR 14	Y Evidence provided for no sell of old boilers CAR 14 Closed
9.11 The project boundary shall be constructed in accordance with the requirements of the SSC meths in Appendix B.	PDD	DR	Project boundary for present project activity mentioned in the PDD is not clear it needs to be more explicit. It is not clear whether total Western grid is considered in the project boundary or only western grid interconnection point is considered.	CAR 15	Y CAR 15 Closed
9.12 The Monitoring plan shall be consistent with the requirements of the SSC methodology in Appendix B and shall provide for the collection and archiving of data needed to determine project emissions, baseline emissions and leakage.	PDD	DR	<p>Management structure is not provided, Roles and responsibility of the personnel's involved in the project activity is not clear.</p> <p>The monitoring plan does not include monitoring of the quantity and NCV of bagasse and other fossil fuels that will be used in the project activity.</p> <p>Monitoring plan does not include leakage</p>	CAR 16	Y CAR 16 Closed

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>monitoring. Leakage due to transportation and fossil fuel use is not considered in the monitoring plan.</p> <p>The monitoring plan does not monitor the Gross electricity generated and Auxiliary consumption. Please clarify.</p> <p>The grid emission factor also needs to be monitored.</p>		
9.13 The monitoring plan shall present good monitoring practice appropriate to the circumstances of the project activity.	PDD	DR	Annex 4 of the PDD mentions this section has been left blank on purpose. Please clarify.	CAR 17	Y CAR 17 Closed
9.14 If project activities are bundled, separate monitoring plan shall be prepared for each of the activities or an overall plan reflecting good monitoring practice will be prepared, consistent with the above requirements.	PDD	DR	The project is not a bundled project activity.	Y	Y

Table 10 Additional requirements for AR projects – Not applicable

Table 11 Additional requirements for SSC AR projects – Not applicable

Table 12 Additional information to be verified by local assessors / Site visit – Separate File attached

Annex 3: Overview of Findings

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
01	CAR	Host country approval from the Indian DNA, and a letter of approval from UK is required to be submitted by the project proponent for the project activity.	1.1
Date: [Response from project developer]25/4/2007 The HCAs are awaited in May..			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] Provide a copy of the same.			
Date: [] [Response from project developer]2/7/2007 HCA from India and UK have been obtained and submitted to the DOE.			
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] The HCA from Indian DNA reference no is 4/3/2007- CCC and a letter of Approval from the UK DNA has been submitted, the name mentioned on the letter of approval is the same as mentioned in the section A.1 of the PDD. Thus CAR can be closed. [Acceptance and close out] OK, Sanjeev Kumar [25/07/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
02	CAR	Evidence is required to be submitted by the project proponent for no use of ODA for the specific project activity.	1.7
Date: [Response from project developer]25/4/2007 This has been provided at the time of Site visit.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] No such document provided, kindly provide the same.			
Date: [Response from project developer] The same has now been provided.			
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] A letter of undertaking has been provided by the project proponent that mentions that no ODA was used for the project activity, it was checked and is acceptable thus CAR can be closed. [Acceptance and close out] OK Sanjeev Kumar [25/07/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
03	NIR	Section E.1 mentions local stakeholders but it does not identify who are the local stakeholders for the specific project activity.	7.1
Date: [Response from project developer]25/4/2007 The local stakeholders include the farmers supplying sugar cane to the sugar factory and the local municipality. A list of farmers was provided at the time validation site visit.			

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] A list of farmers which form the local stakeholders have been submitted but the same is not mentioned in the PDD. Kindly clarify.
Date: [Response from project developer]2/7/2007 The comments from the stakeholders have now been mentioned in the PDD.
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] The revised PDD was checked and it mentions the summary of stakeholder comments under section E.2, during the site visit the comments were cross-checked by discussion with the stakeholders and the comments were found acceptable. NIR can be closed.
[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
04	NIR	A copy of the newspaper clipping dated 30 th January 2007 which contains notice published for local stakeholders meeting is required to be submitted by the project proponent.	7.2
Date: [Response from project developer]25/4/2007 A copy has been provided at the time of validation site visit.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] The newspaper clipping dated 1 st February 2007 has been provided, but the PDD mentions the date as 30 th January, kindly clarify the same.			
Date: [Response from project developer]2/7/2007 The notice was published in Marathi newspaper on 30th January 2007 and it was published on 1st February 2007 in the English newspaper and the same has been indicated in the PDD.			
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] The revised PDD mentions that the notice was published in both Marathi and English newspaper on 30 th January 2007 and 1 st February 2007 respectively, thus NIR can be closed.			
[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
05	NIR	The local stakeholder meeting was not carried out, but a notice was published in the newspapers. Publishing a notice in the newspaper does not suffice the need for the stakeholders meeting. Kindly clarify the same.	7.3
Date: [Response from project developer]25/4/2007 It was clarified during the validation site visit that the stakeholder meeting was carried and details regarding the same have been provided.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] The project proponent has conducted a stakeholder meeting for the project activity, and list of farmers has been submitted. During the site visit it was cross-checked during discussions with the farmers and no negative comments were found. NIR can be closed			
[Acceptance and close out]. OK Sanjeev Kumar [19/06/2007]			

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Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
06	CAR	A copy of NOC from the local municipality is required to be submitted by the project proponent for the specific project activity.	7.4
Date: [Response from project developer]25/4/2007 A copy of the NOC was provided during the validation site visit.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] A copy of NOC from Kagal Municipality has been provided and is acceptable. CAR can be closed.			
[Acceptance and close out] OK Sanjeev Kumar [19/06/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
07	NIR	The PDD mentions the turbine for the present project activity is of 12 MW capacity while the export is only of 10 MW, please explain why there is a difference.	8.2.1
Date: [Response from project developer]25/4/2007 The difference is due to the auxiliary consumption. The net power available to export will be lower from the rating of the turbine as some power will be consumed by the auxiliaries in the power plant			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] During site visit it was observed that the amount of electricity estimated to be exported to the grid would be 10.6 MW while PDD mentions 10 MW. Kindly clarify.			
Date: [Response from project developer]2/7/2007 The factory will export 7.43MW during season and 10.69MW during off-season. This has now been made clear in the PDD.			
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] The revised PDD mentions the same under section A.2 and is acceptable. NIR can be closed.			
[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
08	NIR	The project proponent requires submitting evidence that the technology will not be changed during the crediting period.	8.2.3
Date: [Response from project developer]25/4/2007 An undertaking will be provided saying the technology will not be changed during the crediting period.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] Kindly provide the same.			
Date: [Response from project developer] The same has been provided now.			
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor]			

A letter has been provided which mentions that the technology will not be changed during the crediting period for the project activity. This was acceptable, NIR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
09	CAR	The project proponent requires submitting the evidence for training provided to the staff.	8.2.4

Date: [\[Response from project developer\]25/4/2007](#)

[During the validation site visit the training certificate was provided to the DOE.](#)

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]

The project proponent has submitted a list of members that have been given training for the project activity. This is acceptable and CAR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [19/06/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
10	CAR	The project proponent needs to submit an evidence to confirm the start date of the project activity.	8.3.1

Date: [\[Response from project developer\]25/4/2007](#)

[A copy of the letter of intent for the purchase of the turbine generator has been provided during the validation site visit as an evidence for the start date of the project.](#)

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]

The copy of letter of intent for the purchase of the Turbine Generator mentions the date as 09/01/2006 but the PDD under section C.1.1 mentions the starting date as 01/03/2006. Kindly clarify which date is considered as the starting date of the project activity.

Date: [\[Response from project developer\]2/7/2007](#)

This was an error and the same has been corrected.

Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor]

The revised PDD mentions the start date of the project activity as 09/01/2006 and is acceptable. CAR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
11	CAR	The grid emission factor has been calculated using the data from the CEA, but the grid emission factor is higher than that provided by the CEA in their database version 1.1, it is required to explain why the grid emission factor mentioned by the CEA has not been used which was calculated on the conservative side. The project proponent requires to submit the excel sheets for calculating the emission reductions due to project activity.	9.6

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Date: [Response from project developer]25/4/2007 The final spreadsheets will be submitted.
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] Kindly submit the same.
Date: [Response from project developer]2/7/2007 The spreadsheets have been submitted.
Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor] The project proponent has agreed to use ex-post determination of Grid emission factor for the project activity. The Grid emission factor used for calculation of CERs has been taken from the CEA database where the combined emission factor for western grid is 0.81 tCO ₂ /MWh. Thus CAR can be closed.
[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
12	CAR	The PDD does not discuss whether EIA had been carried or not for the present project activity. Please clarify the same. Provide copies of consent to establish and NOC form MPCB.	9.8
Date: [Response from project developer]25/4/2007 A rapid EIA documents was provided at the time of the validation site visit along with the application letter for EIA. This has been mentioned in the modified PDD. Consent to establish has been given by the pollution control board and a copy of the same was provided during the validation site visit.			
Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] A copy of EIA has been submitted and no negative impacts have been envisaged by the project activity. The consent to establish by MPCB has been provided and is acceptable. CAR can be closed.			
[Acceptance and close out] OK Sanjeev Kumar [19/06/2007]			

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
13	CAR	<ul style="list-style-type: none"> What was the operational lifetime of the decommissioned boilers and what will their future after decommissioning. Please explain more about pre-project activity scenario in section B.4 of PDD. Evidence is required for the days of operation (season days) considered in Emission reduction calculations, PLF, Bank PLR and cost of bagasse as mentioned in the PDD. Assumptions along with the excel sheet of IRR calculations is to be provided by the project proponent. 	9.9

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		<ul style="list-style-type: none"> • PPA with MSEDCL is to be provided. • Details of Agreement with the government buyer of certified emission reductions. • It is not mentioned whether any loan has been taken for the project activity. If yes please provide documents for the same. 	
<p>Date: [Response from project developer]25/4/2007</p> <ul style="list-style-type: none"> • The decommissioned boilers have not exceeded their operational lifetime but would be replaced by more efficient high pressure boilers. The decommissioned boilers will be sold in the market. • The guidance from EB for the small scale PDD requires to specify the baseline for the project activity. We have further mentioned that the sugar factory remains self sufficient in power. • The Detailed project report outlines the expected days of operation and the PLF for the sugar factory and the same has been provided at the validation site visit. The loan sanction document was provided during the site visit mentions bank PLR. The price of bagasse for the financial analysis has been assumed to be Rs 1000/ton based on the market conditions. This assumption is reasonable as the price of bagasse has varied from around Rs 750 to Rs 1400 per ton in the past depending on the weather and the demand. • The spreadsheet detailing the IRR analysis will be provided to the DOE. • A copy of the EPA (Energy Purchase Agreement) has been provided to the DOE during the validation site visit. • Project Proponent are in a agreement with the buyer from the Austrian government. • The loan details have been given in the loan sanction letter provided from the Bank during the site visit. 			
<p>Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor] Kindly provide the remaining documents.</p>			
<p>Date: [Response from project developer] The spreadsheet detailing IRR and other calculations is attached.</p>			
<p>Date: [09/08/2007] [Jimmy Sah] [Comments from Local Assessor]</p> <p>The IRR calculation sheet has been provided, it was checked for the assumptions used and is found acceptable.</p> <p>Bank loan documents have been provided which mentions the loan of 3000 lacs, the project proponent during discussion has mentioned that they are in agreement with the buyer from Austrian government.</p> <p>Also consider leakage if the boilers will be sold out in the market.</p>			
<p>Date: [Response from project developer] 09/08/2007</p> <ul style="list-style-type: none"> • The decommissioned boilers have not exceeded their operational lifetime but would be replaced by more efficient high pressure boilers. The decommissioned boilers will be scrapped. 			
<p>Date: [16/08/2007] [Jimmy Sah] [Comments from Local Assessor]</p> <p>The project proponent has submitted an undertaking which states that the old boiler would be scrapped after the operations from the new boiler would be normalised. The project proponent initially had considered the idea of selling the boilers but due to lack of potential buyers they have</p>			

now decided to scrap the old boilers. This will be verified during the verification to ensure that the old boilers have been scrapped as indicated in the undertaking.

[Acceptance and close out] OK Sanjeev Kumar [16/08/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
14	CAR	The PDD does not discuss about the leakage due project activity and project emissions due to transport of bagasse for the project activity. The PDD does not mention about emissions due to use of fossil fuel if any.	9.10

Date: [Response from project developer] No fossil fuels will be used however details on the leakage due to transportation will be provided later.

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]
Kindly provide the same.

Date: [Response from project developer]2/7/2007
The PDD now mentions emissions from transportation and the calculations have been indicated.

Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor]
The calculations for emissions from transport have been considered as project emissions as the biomass transport is included in the project boundary and the same is also mentioned in the PDD. CAR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
15	CAR	The project boundary for the present project activity is not clear as mentioned in the PDD. It is not clear whether total Western grid is considered in the project boundary or only western grid interconnection point is considered. A block diagram in this case will be appreciated.	9.11

Date: [Response from project developer]25/4/2007
The project boundary has now been made clear in the PDD. Total western grid is considered for the project activity.

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]
Kindly provide the revised PDD.

Date: [Response from project developer]2/7/2007
The revised PDD is attached.

Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor]
The revised PDD mentions the boundary clearly, CAR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
16	CAR	<p>The PDD for the present project activity does not mention about management structure, Roles and responsibility of the personnel's involved in the project activity.</p> <p>The monitoring plan does not include monitoring of the quantity and NCV of bagasse and other fossil fuels that will be used in the project activity.</p> <p>Monitoring plan does not include leakage monitoring. Leakage due to transportation and fossil fuel use is not considered in the monitoring plan.</p> <p>The monitoring plan does not monitor the Gross electricity generated and Auxiliary consumption. Please clarify.</p> <p>The grid emission factor also needs to be monitored.</p>	9.12

Date: [Response from project developer]25/4/2007

The management structure has been detailed in the PDD.

As per point 13 of AMS1D version 4, monitoring of quantity and NCV of bagasse is required only if co-firing is done. The project neither plan to use any other fuels including fossil fuels nor there is any provision for fuel handling other than bagasse. The evidence for the same was provided during validation site visit showing specification from the boiler manufacturer.

Gross electricity generated and auxiliary consumptions are not included in the monitoring plan because the emission reductions are calculated based on export of power. However the plant maintains records of power generation and auxiliary consumption. The factory has a Quality Management System certificate ISO:9001-2000 and therefore they have well defined procedures for data recording.

Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]

Kindly provide the revised PDD.

Date: [Response from project developer]2/7/2007

The revised PDD is attached.

Date: [25/07/2007] [Jimmy Sah] [Comments from Local Assessor]

The factory is ISO certified and hence they have well defined procedures for data recording which was cross-checked during site visit and found acceptable. CAR can be closed.

[Acceptance and close out] OK Sanjeev Kumar [25/07/2007]

Date: 10th April 2007

Raised by: Sanjeev Kumar/Vikrant Badve

No.	Type	Issue	Ref
17	CAR	Annex 4 of the PDD mentions that the section has been left blank on purpose. Please explain the same.	9.13
<p>Date: [Response from project developer]25/4/2007</p> <p>The section can be left blank on purpose if the relevant information has already been included in the PDD earlier. We have documented the monitoring plan in section B.7.2 in detail and therefore Annex 4 has been left blank.</p>			
<p>Date: [19/06/2007] [Jimmy Sah] [Comments from Local Assessor]</p> <p>The PDD mentions about the monitoring procedure under section B.7 and thus it is acceptable. CAR can be closed.</p>			

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[Acceptance and close out] OK Sanjeev Kumar [19/06/2007]

Annex 4: Statement of Competence of Validation Team

Statement of Competence

Name: Sanjeev Kumar

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

Validation

Verification

- | | | |
|------------------------|-------------------------------------|-------------------------------------|
| - Local Assessor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Lead Assessor | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Assessor | <input type="checkbox"/> | <input type="checkbox"/> |
| /Trainee Lead Assessor | | |

Scopes of Expertise

- | | |
|--|-------------------------------------|
| 1. Energy Industries (renewable / non-renewable) | <input checked="" type="checkbox"/> |
| 2. Energy Distribution | <input checked="" type="checkbox"/> |
| 3. Energy Demand | <input checked="" type="checkbox"/> |
| 4. Manufacturing | <input checked="" type="checkbox"/> |
| 5. Chemical Industry | <input type="checkbox"/> |
| 6. Construction | <input type="checkbox"/> |
| 7. Transport | <input type="checkbox"/> |
| 8. Mining/Mineral Production | <input type="checkbox"/> |
| 9. Metal Production | <input type="checkbox"/> |
| 10. Fugitive Emissions from Fuels (solid,oil and gas) | <input type="checkbox"/> |
| 11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride | <input type="checkbox"/> |
| 12. Solvent Use | <input type="checkbox"/> |
| 13. Waste Handling and Disposal | <input type="checkbox"/> |
| 14. Afforestation and Reforestation | <input type="checkbox"/> |
| 15. Agriculture | <input type="checkbox"/> |

Approved Member of Staff by Siddharth Yadav Date: 16th May 2007

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Member of SGS Group (Société Générale de Surveillance)

Statement of Competence

Name: Vikrant Badve

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

Validation

Verification

- Local Assessor ☒
- Lead Assessor ☐
- Assessor ☐
- / Trainee Lead Assessor

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☒
2. Energy Distribution ☒
3. Energy Demand ☒
4. Manufacturing ☒
5. Chemical Industry ☐
6. Construction ☒
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☐
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Marco van der Linden

Date: 29-12-06

Statement of Competence

Name: Jimmy Sah

SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

Validation

Verification

- Local Assessor ☒
- Lead Assessor ☐
- Assessor ☐
- / Trainee Lead Assessor

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) ☐
2. Energy Distribution ☐
3. Energy Demand ☐
4. Manufacturing ☐
5. Chemical Industry ☐
6. Construction ☐
7. Transport ☐
8. Mining/Mineral Production ☐
9. Metal Production ☐
10. Fugitive Emissions from Fuels (solid,oil and gas) ☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride ☐
12. Solvent Use ☐
13. Waste Handling and Disposal ☐
14. Afforestation and Reforestation ☐
15. Agriculture ☐

Approved Member of Staff by Siddharth Yadav Date: 23-05-07

Statement of Competence

Name:Siddharth Yadav

SGS Affiliate:SGS United Kingdom Ltd.

Status

- Product Co-ordinator ☒
- Operations Co-ordinator ☐
- Technical Reviewer ☒
- Expert ☒

Validation

Verification

- Local Assessor ☐
- Lead Assessor ☒
- Assessor ☒
- / Trainee Lead Assessor

Scopes of Expertise

- | | |
|--|-------------------------------------|
| 1. Energy Industries (renewable / non-renewable) | <input checked="" type="checkbox"/> |
| 2. Energy Distribution | <input type="checkbox"/> |
| 3. Energy Demand | <input type="checkbox"/> |
| 4. Manufacturing | <input checked="" type="checkbox"/> |
| 5. Chemical Industry | <input type="checkbox"/> |
| 6. Construction | <input type="checkbox"/> |
| 7. Transport | <input checked="" type="checkbox"/> |
| 8. Mining/Mineral Production | <input checked="" type="checkbox"/> |
| 9. Metal Production | <input type="checkbox"/> |
| 10. Fugitive Emissions from Fuels (solid,oil and gas) | <input type="checkbox"/> |
| 11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride | <input type="checkbox"/> |
| 12. Solvent Use | <input type="checkbox"/> |
| 13. Waste Handling and Disposal | <input checked="" type="checkbox"/> |
| 14. Afforestation and Reforestation | <input type="checkbox"/> |
| 15. Agriculture | <input type="checkbox"/> |

Approved Member of Staff by Marco van der Linden

Date: 24-04-07

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