Validation Report

SHREE NAKODA ISPAT LTD.

VALIDATION OF THE CDM-PROJECT:

SHREE NAKODA ISPAT LTD 12 MW BIOMASS POWER GENERATION PROJECT

Report No. 1099813

02 June 2010

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "Climate and Energy" Westendstr. 199 80686 Munich Germany	**TÜV SÜD Contract Partner:** TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 80686 Munich Germany TÜV SÜD South Asia / TÜV SÜD Group C-153/1, Okhla Industrial Area, Phase-1, New Delhi - 110 020 India
Project Participant (client): Shree Nakoda Ispat Ltd. Shankar Nagar, Near Railway station, Mowa Raipur, Chhattisgarh	**Project Site(s):** The project is located at longitude 21.36 and Latitude 81.65, Plot number 109, Phase II, Siltara Industrial Growth Centre, Siltara, Raipur, Chhattisgarh, (ref.http://wikimapia.org/3020917/Shree_Nakoda_Ispat_Ltd.)
Project Title: Shree Nakoda Ispat Ltd 12 MW Biomass power generation project	
Applied Methodology / Version: AMS I.D / Version 13	**Scope(s):** 1 **Technical area(s):** 1.2
First PDD Version: (Meth/ver-12) Date of issuance: 15-11-2007 Version No.: 01 Starting Date of GSP 13-12-2007 **Second PDD Version: (Meth/ver-13)** Date of issuance: 23-09-2008 Version No.: 03 Starting date of Re-GSP 12-11-2008	**Final PDD version:** Date of issuance: 02-06-2010 Version No.: 06
Estimated Annual Emission Reduction:	57, 525 tCO_2e
Assessment Team Leader: Bratin Roy	**Further Assessment Team Members:** Rajkumar Thakur, Sandeep Kanda, Supratik Dutta

Summary of the Validation Opinion:

☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology (ies) or the applied methodology version respectively.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

Abbreviations

AMS	Approved Methodology Small-scale
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Green-House Gas(es)
GSP	Global Stakeholder Process
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
IRR	Internal Rate of Return
SNIL	Shree Nakoda Ispat Ltd.
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
OM	Operational Margin
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM Executive Board (CDM-EB). The ultimate decision on the registration of a proposed project activity rests at the CDM-EB and the Parties involved.

The project activity discussed by this validation report has been submitted under the project title:

Shree Nakoda Ispat Ltd 12 MW Biomass power generation project

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM project activities the scope is set by:

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions and specific guidance by the EB published under http://cdm.unfccc.int
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the sectoral scope
- Applicable environmental and social impacts and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice

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

Once TÜV SÜD receives a first PDD version, it is made publicly available at the UNFCCC webpage and at TÜV SÜD's webpage for starting a 30 day global stakeholder process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP could be repeated) and the final PDD will form the basis for the final evaluation as presented in this report. Information on the first and the final PDD version is presented in page 1.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD cannot be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

2 METHODOLOGY

The project assessment applies standard auditing techniques to assess the correctness of the information provided by the project participants. The assessment is based on the "Clean Development Mechanism Validation and Verification Manual" version 01. The work starts with appointment of team covering the technical scope(s), sectoral scope(s) and relevant host country experience for evaluating the CDM project activity. Once the project is made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified and finally preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB "climate and energy" before submission to the CDM-EB.

In order to ensure transparency, assumptions are clear and explicitly stated; the background material is clearly referenced. TÜV SÜD developed a methodology-specific protocol customised for the project. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The validation protocol serves the following purposes:

It organises, details and clarifies the requirements a CDM project is expected to meet;

It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation and any adjustment made to the project design.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

Validation Protocol Table 1: Conformity of Project activity and PDD				
Checklist Topic / Question	**Reference**	**Comments**	**GSP PDD**	**Final PDD**
The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further sub-divided. The lowest level constitutes a checklist question / criterion.	*Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any **Request** has to be substantiated within this column*	*Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **Clarification Request (CR)** is used when the validation team has identified a need for further clarification. **Forward action request** to highlight issues related to project implementation that require review during the first verification.*	*Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented in the documentation .*

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	**Ref. to table 1**	**Summary of project owner response**	**Validation team conclusion**
If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.	*Reference to the checklist question number in Table 1 where the issue 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 discussion on and revision to project documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final PDD".*

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	**Id. of CAR/CR**	**Explanation of the Conclusion for Denial**
If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.	*Identifier of the Request.*	*This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion with a clear reference to the requirement which is not complied with.*

The completed validation protocol is enclosed in Annex 1 to this report.

2.1 Appointment of the Assessment Team

According to the technical area(s), sectoral scope(s) and experiences in the national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body "climate and energy". The composition of an assessment team has to be approved by the Certification Body (CB) ensuring that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts:

Name	Qualification	Coverage of technical area	Coverage of sectoral scope	Host country experience
Bratin Roy	**ATL**	**-**	**-**	☑
Sandeep Kanda	GHG-A	☑	☑	☑
Supratik Dutta	-	**-**	**-**	☑
Rajkumar Thakur	-	**-**	**-**	☑

Bratin Roy is an Assessment Team Leader for CDM/JI projects and GHG auditor at TÜV SÜD South Asia, TÜV SÜD Group. He is also a lead auditor for quality, environment and occupational health and safety management system (according to ISO 9001, ISO 14001 and OHSAS 18001) and an auditor for CDM/JI projects at TÜV SÜD South Asia. He holds a master degree in environmental science. He is based in Pune, India. He has received extensive training in the CDM validation and verification processes. He has a vast consultancy and auditing experience in the filed of renewable energy like biomass power, hydropower and wind power.

Sandeep Kanda is an auditor for CDM/JI projects and energy and environment field expert at TÜV SÜD Industrie Service GmbH. He holds a master degree in energy systems engineering and also industrial safety and environmental management. Before joining the TÜV SÜD Industrie Service GmbH he has worked extensively on projects in energy sector, manufacturing industries, chemical industries and metal production. He has carried out energy audits and worked on development of CDM projects and methodologies in the aforementioned sectors.

Supratik Dutta in former times was appointed as a GHG auditor at TÜV SÜD South Asia, TÜV SÜD Group. He is also a certified lead auditor for environmental management systems (according to ISO 14001). He holds a post-graduate degree energy management. He has received extensive training in the CDM validation and verification process and participated already in several CDM project assessments.

Rajkumar Thakur was a GHG Auditor at TÜV SÜD South Asia and also a certified lead auditor for environmental management systems (according to ISO 14001). He holds a post-graduate degree in Energy Efficiency. Before joining TÜV SÜD South Asia, he worked on energy conservation, Renewable energy technology, cement blending and waste heat recovery projects. He has received extensive training in the CDM validation and verification processes and has participated in several CDM project assessments.

2.2 Review of Documents

A first version of the PDD was submitted to the DOE in November 2007. The first PDD submitted by the PP and additional background documents related to the project design and baseline were reviewed to verify the correctness, credibility and interpretation of the presented information, furthermore a cross check between information provided and information from other sources (calculation sheet) have been done as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

During the period between 9th and 10th January, 2008, TÜV SÜD performed physical site inspection and on-site interviews with project stakeholders to confirm relevant information and to resolve issues identified in the first document review. The table below provides a list of all persons involved in this context;

Name	Organisation
Mr. Virendra Goel	Director, Shree Nakoda Ispat Ltd (SNIL)
Mr. Amitabh Shome	Director (Technical),SNIL
Mr. Rajkumar Agarwal	Chartered Accountant, SNIL
Mr. V.K Duggal	Mitsubishi UFJ Securities, Consultant
Mr. Dinesh Agarwal	Mitsubishi UFJ Securities, Consultant

2.4 Further Cross-check

During the validation process, the audit team also cross checked information provided in the PDD and information from sources other than that provided by the PP. The audit team performed an independent background investigation through search over the internet. Reference(s) to available information related to similar projects or technologies as the CDM project activity has been made. The documentation has also been reviewed against the approved methodology applied to confirm the appropriateness of formulae and correctness of calculations.

2.5 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD`s conclusion on the project design. The CARs and CRs raised by TÜV SÜD were resolved during communication between the PP and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are documented in more detail in the validation protocol in annex 1.

The final PDD version-06 that was submitted in June 2010 serves as the basis for the final assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM, i.e. to achieve a reduction of anthropogenic GHG emissions and to contribute to a sustainable development.

2.6 Internal Quality Control

As final step of a validation the final documentation including the validation report and the protocol have to undergo an internal quality control by the CB “climate and energy”, i.e. each report has to be finally approved either by the head of the CB or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

After confirmation of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.

3 FINDINGS

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2.

3.1 Approval

The project participant is Shree Nakoda Ispat Ltd. (SNIL), from India (host country). The letter of approval (LoA) referenced as No.4/18/2007-CCC, dated 25th July 2008, from Indian Designated National Authority (DNA) has been received [IRL # 29]. TÜV SÜD received this letter from the project participant directly. The authenticity check of the submitted LoA has been done thorough the official website of Ministry of Environment and Forest (http://cdmindia.nic.in/cdmindia/projects/PCN_655_07.pdf). Thus TÜV SÜD concludes that the given one is authentic.

Furthermore, after checking the provided LoA, TÜV SÜD confirms that the letter refer to the precise proposed CDM project activity title is in-line with the title in the PDD "**Shree Nakoda Ispat Ltd 12 MW Biomass power generation project**".

The Host Country LoA also confirms that the proposed CDM project activity contributes to the sustainable development in India (host country). Based on the information given in the letter, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoA has been issued by the DNA, "National Clean Development Mechanism (CDM) Authority (Ministry of Environment and Forests)", India.

TÜV SÜD considers the requirements of the VVM (§§ 45-48) to be complied with.

The LoA does not specify a version number of the PDD or validation report.

3.2 Participation

The participant of the project activity has been approved, which is confirmed by the issued LoA.

The means of validation were equivalent to those described in section 3.1 in regard to the approval process of the project activity.

3.3 Project design document

As result of an in-depth review of the submitted documents TÜV SÜD can confirm that the PDD is compliant with relevant form and guidance by UNFCCC. The most recent version of the PDD form was used.

TÜV SÜD considers that the guidelines for the completion of the PDD in their most recent version have been followed. Relevant information has provided by the participants in the applying PDD sections. Completeness was assessed through the protocol included in Annex 1 of this report.

TÜV SÜD confirms that the included information sufficiently covers all relevant items, is accurate and provides the reader with a clear understanding of the nature of the project activity.

3.4 Project description

The proposed project activity involves the installation and operation of a grid connected 12MW biomass based power plant in the industrial facility of SNIL, located at Siltara, Raipur district in the state

of Chhattisgarh, India. The project activity will be connected to the Chhattisgarh State Electricity Board, which forms a part of the Western grid of India. The geographical coordinates of project site are 21 21' 36" deg N and 81 39' 6" deg E. The project activity would be used for captive power consumption at SNIL and export of surplus power to the grid. In the absence of the project activity the electricity requirement of the SNIL facility would be met by the existing waste heat recovery unit and grid supply. The project activity will be replacing the grid power.

The biomass based power plant will generate electricity by utilizing mainly rice husk. The plant and machinery of the project consists of a high-pressure steam turbine configuration will be used. To generate steam Circulating Fluidized Bed Combustion Boiler (CFBC) will be used. Other plant & equipment includes fuel conveyors, ash handling system, water treatment plant, compressed air plant, electrostatic propitiator etc. The proposed plant will have one Turbine which is of impulse, multistage, single cylinder with horizontally split casing and straight condensing type capable of generating 12 MW at 11 KV, 50 Hz, 0.8 Power factor at generator terminals.

The description of the recent situation, the project activity and the baseline as provided under section A of the PDD has been verified during the on-site visit and by reviewing the supporting documents and back-ground information accessible on publicly available sources (e.g. information on the Indian electricity grid). In particular the information, which is essential for the understanding of the activity, can be confirmed herewith.

The description of the project as per the PDD could be verified during the on-site audit:

The accuracy and completeness of the project description can be confirmed. The usage of biomass energy from the project activity to generate power prevents the GHG emissions associated with the grid electricity that would have been caused in the absence of the project activity. The estimated annual GHG emission reductions are **57, 525** tCO_2e.

The information presented in the PDD on the technical design is consistent with the actual planning and implementation of the project activity as confirmed by:

- review of data and information (see annex 2);
- An on-site visit has been performed and relevant stakeholder and personnel with knowledge of the project were interviewed;
- Finally information related to similar projects or technologies as the CDM project activity have been used.

In light of the above, TÜV SÜD confirms that the project description as included to the PDD is sufficiently accurate and complete in order to comply with the requirements of the CDM.

3.5 Baseline and monitoring methodology

3.5.1 Applicability of the selected methodology

As per the approved methodology AMS I.D, Version 13, "This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and **renewable biomass**, that supply electricity to and/or displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit". The project activity meets the applicability conditions of the approved methodology as the project is a new installation of biomass based power project.

The assessment was carried out for each applicability criteria and included among others the compliance check of the local project setting with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources which sustain that applicability conditions are complied with.

The Methodology specific protocol included to the Annex 1 documents the assessment process, including the steps taken. The results on the compliance check as well as the relevant evidence are explicitly presented in annex 1.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the project activity.

Emission sources which are not addressed by the applied methodology such as due to transportation of biomass have been identified and it can be confirmed that they do not represent more than 10% of the total expected ER in compliance with the SSC guidelines. Further emissions not addressed by the methodology have not been identified.

3.5.2 Project boundary

The project boundary was assessed in the context of physical site inspection, interviews and based on the secondary evidence received on the design of the project.

The Project boundary includes the physical and geographical site of all power plants connected physically to the western grid as Chhattisgarh is a part of the Western grid. The project bounday is as per the methodology and the same has been validated based on the document review and on-site visit.

The most relevant documentation assessed in order to confirm the project boundary are following:

- Power Purchase Agreement with Chhattisgarh State Electricity Board [IRL#8];
- Consent to establish from Chhattisgarh Environment Conservation Board [IRL#9].

The same have been validated during the validation process using standard audit techniques, further details of any observation are transparently presented in the annex 1.

Hence TÜV SÜD confirms that the identified boundary and the selected sources and gases as documented in the PDD are justified for the project activity.

3.5.3 Baseline identification

The project applies the approved simplified baseline methodology for selected small-scale CDM project activity categories, category I.D – Renewable electricity generation for a grid (AMS-I.D) version 13. The installed capacity of the proposed project is 12 MW which is well below the qualifying limit of 15 MW for type I small scale projects. The selected baseline methodology, AMS-I.D, version 13, is applicable to the proposed project as the project generates electricity using biomass resource and it displaces the grid electricity. The identified baseline scenario, in line with the methodology AMS-I.D version 13, is the equivalent electricity that would in absence of the project activity, have been generated by the operation of the grid-connected thermal power plants belonging to the western regional electricity grid. As the project activity displaces and supplies electricity to the Chhattisgarh state electricity grid which forms a part of the western region electricity grid, the baseline for this project activity is a function of the generation mix of the western region grid. The selection of the western region grid as the grid system boundary for the project activity is in line with the recent EB guidance for large countries such as India.

The information presented in the PDD has been validated by a first document review of all the data, further confirmation based on the on-site visit and a final step by cross checking the information with similar relevant projects and/or technologies. The sources referenced in the PDD have been quoted correctly. The information was cross-checked based on verifiable and credible sources, such as:

- Power Purchase Agreement with Chhattisgarh State Electricity Board [IRL#8];
- Generation mix of the western region grid;
- The Central Electricity Authority, Ministry of Power, Government of India (CEA).

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions on calculations TÜV SÜD considers that the identified baseline scenario is reasonable.

TÜV SÜD confirms that all relevant CDM requirements, including relevant sectoral policies and circumstances, have been identified correctly taken into account in the definition of the baseline scenario.

A verifiable description of the baseline scenario has been included to the PDD.

In regard to item 86 of VVM, TÜV SÜD confirms that:

1. All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
2. All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
3. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
4. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
5. The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.5.4 Algorithm and/or formulae used to determine emission reductions

3.5.4.1 Baseline emissions

TÜV SÜD has assessed the calculations of project emissions, baseline emissions and leakage and emission reductions. Corresponding calculations were carried out based on calculation spreadsheets. The parameters and equations presented in the PDD and further documentation have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files.

For the calculation of the Baseline Emission Factor, option (a) – A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the “Tool to calculate the emission factor for an electricity system is chosen. The western grid has been considered as the baseline since the Project activity will replace use of fossil fuel by existing power plants in the grid for supply of power. The data provided by the Central Electricity Authority (CEA), under the Ministry of Power, Government of India, has been used in estimating the Operating & Build Margin for the Western grid, which is publically available.

In line with the methodology, the combined margin emission factor for the western grid of India has been calculated to be 0.7959 tCO_2/MWh; using a combined margin approach consisting 50% operating margin and 50% build margin approach. The operating margin has been determined to be 0.9982 tCO_2/MWh and the build margin to be 0.5938 tCO_2/MWh. The OM is calculated based on the simple OM approach using the generation weighted average emissions per electricity unit of all fossil-fuelled generating sources serving the system over a three year period of 2004-2005, 2005-2006 and 2006-2007; BM is calculated ex-ante based on the 20% most recent capacity additions in the grid based on net generation for the year 2006-2007. The input values to calculate emission factor as indicated in the PDD have been validated and found to be supported reasonably by evidences. Furthermore, the grid emission factor has been cross-checked with the database provided by CEA - “CO_2 Baseline Database for the Indian Power Sector User Guide - Version 3.0 Database”:

(http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm)

All documentation is correctly quoted and data is consistently transferred to the calculations. The sectoral/national circumstances are considered reasonable and the baseline methodology has been correctly applied.

The assumptions and data used to determine the emission reductions are listed in the PDD and all the sources have been checked and confirmed.

Based on the information reviewed it can be confirmed that the sources used are correctly quoted and interpreted in the PDD.

The values presented in the PDD are considered reasonable based on the documentation reviewed, further references and the result of the interviews.

The baseline methodology has been correctly applied following the requirements.

The estimated of the baseline emissions can be confirmed as the same have been replicated by the audit team using the information provided.

Detailed information on the verification of the parameters used in the equations can be found in the annex 1.

3.5.4.2 Project emissions

The project activity is a biomass power project and intends use of coal as fuel in-case of exigencies; the project emissions will be calculated in accordance with the "Tool to calculate project or leakage CO_2 emissions from fossil fuel combustion" Version 2. Further, as the emission due to use of fossil fuel for biomass transportation is less than 10%, hence no project emission has been considered against transportation of biomass.

3.5.4.3 Leakage

Since the project activity is a renewable Biomass power project and there are no energy generating equipment transfer involved from another activity, hence, no leakage has been considered from the Project activity.

3.5.4.4 Emission Reductions

In summary, as there are no leakage and project emission therefore no calculation has been conducted for the same. Only the baseline and the emission reduction calculations have been presented in the final PDD which are in line with the methodology and are deemed to be conservative.

3.6 Additionality

The additionality of the project activity has been demonstrated as per the Attachment A to Appendix B of simplified modalities and procedures for small-scale CDM project activities. The approach use in the PDD has been assessed first based on a document review, where following relevant documents have been reviewed:

- Early consideration of CDM (Board of Director resolution), [IRL#5];
- Detailed project report (DPR), [IRL#6].

On site the additionality has been discussed principally with Mr. Amitabh Shome, Director (Technical). The data, rationales, assumptions, justifications and documentation provided have been checked using local knowledge and sectoral and financial expertise. Furthermore, documents have been reviewed on-site (for details see annex 2).

3.6.1 Prior consideration of the clean development mechanism

The starting date of the project activity is determined to be 1st November 2006 [IRL#10], which is before 2nd August 2008 and also before the GSP. The original of the documentation presented has

been revised and cross check based on interviews with Mr. Amitabh Shome, hence the document can be considered appropriate to confirm the prior consideration. Since the start date was before the validation, information on the delay and early consideration of CDM was questioned and the response by the PP has been validated in accordance with EB-41, Annex-46, Para-5, as follows:

Activity	Supportive Documents	Auditor conclusion
Board approval for the project considering carbon credits, April 2006	Extract of Board resolution [IRL#5]	Verified, early CDM consideration
Issuance of purchase order, November 2006	Purchase order [IRL#10]	Verified, on-going CDM related activity.
Communications between Shree Nakoda Ispat with CDM consultants for appointment of CDM consultant for the project, November 2006	Copy of letters, E-mail communications [IRL#25,26,27]	Verified, on-going CDM related activity.
Signing of agreement & Appointment of Mitsubishi UFJ Securities as CDM consultant, January 2007	Email communication, Agreement copy [IRL#28]	Verified, on-going CDM related activity.
Date of stakeholder meeting, May 2007	Minutes of stakeholders meeting [IRL#21,22,23,24]	Verified, on-going CDM related activity.
Appointment of DOE, July 2007	Work order	---
HCA approval letter from Indian DNA, July 2008	Host Country Approval [IRL#29]	Verified, on-going CDM related activity
Re-GSP of the PDD, November 2008	https://cdm.unfccc.int/Projects/Validation/DB/00MQX9S5UCU9OOVYT8HPMUXYRSEO9K/view.html	---

The documentation submitted as proofs to justify these events demonstrated that the PP had indeed considered CDM since the start of the project activity and subsequently efforts were also being carried out towards the registration of the project as a CDM project. The delay in the CDM process has been attributed towards time taken in getting the Host Country Approval (HCA) due to pending environmental consent from local state government. Immediately after that project had to go for re-GSP as the the prevailing version of the applicable methodology – AMS.I.D/Version 12 got expired. Therefore, the project had to suffer a substantial delay.

Hence the project complies with the requirements that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation.

3.6.2 Barrier analysis

As this is a small scale project, attachment A to appendix B has been used to demonstrate additionality. The project proponent has carried out an investment analysis to demonstrate the additionality of the project. It has been demonstrated that the project IRR without CDM revenue is less than the benchmark. The input values used in the investment analysis have been found to be valid and applicable at the time of the investment decision taken by the project participant. The suitability of all the parameters and assumptions used in the calculation of the investment analysis has been validated as follows:

Benchmark – The benchmark has been derived from the prime lending rate prevalent during the year 2006, provided by the Bank of Baroda, resulting in the average rate of 11.00%, increased by a spread of 0.00% to 3.00% (300 basis points) corresponding to the margin charged by the commercial banks [IRL#19]. Thus the benchmark taken as 12% is deemed to be appropriate for the project activity.

Total Investment cost – The total investment cost for the project has been taken from the Detailed Project Report (DPR) prepared for the 12 MW biomass based power project as INR 385 Million for fixed investments and INR 3.771 Million as margin money for working capital; thereby leading to a total project cost of INR 388.771 Million, i.e, around INR 32.4 Million/MW [IRL#6]. The stated values are realistic for the scale of the project. The value has been further validated based on the actual purchase orders related to the project and the tariff order issued by the Chhattisgarh State Electricity Regulatory Commission (CSERC) [IRL#42, 46, 48]. The appeal against the tariff order indicates a normative figure of project cost as INR 39 Million/MW taken by CSERC and estimate of INR 40 Million/MW indicated by Central Electricity Authority (CEA). Further, since the project is already commissioned therefore the actual purchase orders have been checked indicating the total fixed investment as INR 389.057 Million which is higher than the value referred as INR 385 Million for fixed investments in the DPR and the PDD [IRL#48]. Thus, based on the above the total investment cost can be confirmed by the DOE.

Operating expenditure (O&M) – The O&M values have also been taken from the DPR prepared for the project. The break-up of the O&M expense provided has been checked. The manpower costs have been separately presented. Based on the host country experience it can be confirmed that the 10% escalation taken in the manpower costs is reasonable. Further, the PP has provided the historical profit & loss statements to prove the more than 10% escalation in the manpower costs [IRL#43]. The O&M expense inclusive of manpower expenses increase from around 6.25% going up to about 20.11% of the project cost in the 20th year. The normative value of O&M expenses for biomass based power plants suggested by CSERC is 7% of the capital cost with further review after 2-3 years [IRL#42]. Thus in light of the above and the lower capital cost of the project the projected O&M costs are deemed reasonable in the context of the project activity. Further, since the project is already commissioned, the projected values have been checked with the available actual values. The O&M and Administration expenses exclusive of manpower cost for the first year of operation has been found to be INR 18.952 Million as compared to the projection of INR 16.19 Million used in the IRR calculation [IRL#51]. Also, from the salary paid records of the 1st year of plant operation, the total Manpower expenses is found to be INR 9.0859 Million as compared to the projected figure of INR 7.8975 Million used in the IRR calculation [IRL#52]. Thus, based on the above the O&M values can be confirmed by the DOE.

Power generation – The power generation as indicated in the DPR is expected to increase from 70% for the first six months increasing to 80% the next 12 months and then reaching to 85% onwards. In accordance with EB-48, annex-11, the PLF stated in the DPR is also confirmed by the certificate provided by the bank providing loan to the project activity [IRL#37]. The indicated value of PLF can be considered appropriate for the project activity.

Power tariff – The tariff has also been taken from the DPR as 3.80 INR/KWh for 75% firm power and 1.00 INR/KWh for 25% in-firm power. These values have been cross-checked from the price paid in historical records of electricity imports by SNIL from the Chhattisgarh State Electricity Board (CSEB), power purchase agreement and the price received for the in-firm power [IRL#38, 39, 40]. The project is expected to result in saving in the energy charges as the existing contract demand with the grid would not be lowered. Further, the past 3 year CSERC tariff orders indicate that there has been a reduction in the tariff rate from 2005-2008 [IRL#44]. The tariff assumed in the project takes into account the demand charges and thus is on the higher side. In light of the same despite the escalation taken in the other costs (O&M costs etc.) the indicated values of tariff can be considered appropriate for the project activity.

Biomass price – The biomass price taken as 1400 INR/ton is also indicated in the DPR and has been verified against the various supplier quotations and found to be conservative [IRL#6, 20]. The supplier quotations indicate a higher value of biomass price (around INR 1800-1900 per ton). Also, in the recent tariff order issued by Chhattisgarh State Electricity Regulatory Commission (http://cserc.gov.in/pdf/25-2009%20final.pdf) the fact of the price rise of Biomass (Rice Husk) in the region has been acknowledged and accepted. The Commission has also given an indication of landed cost of biomass as INR 1615 per ton [IRL#53]. Thus, the indicated value of biomass price can be deemed appropriate and conservative in context of the project activity.

Specific fuel consumption – The specific fuel consumption has been taken as 1.2 tons of biomass per MWh. This is a calculated value based on the equipment specifications and the calorific value of the biomass. The calculation and assumptions used for arriving at the specific fuel consumption has been checked and has been found to be correct and appropriate. Further as the project is already commissioned therefore the projected value has been checked from the actual available one year data from March 2009 till February 2010. It has been found that based on the actual gross power generation fuel consumption and the calorific value of the fuel the average specific fuel consumption comes to around 1.22 tons/MWh [IRL#50, 54]. Thus, the indicated value of specific fuel consumption as 1.2 tons/MWh can be deemed appropriate and conservative in context of the project activity.

Auxiliary consumption – The auxiliary consumption of the biomass plant is assumed as 10% of the gross electricity generated from the biomass power plant. This is deemed acceptable in the context of the project activity. The auxiliary consumption could also be checked from the connected auxiliary load to the power plant. Further as the project is already commissioned therefore the actual auxiliary consumption data available from March 2009 till February 2010 has been checked. It has been found that based on the record of 1st year of operation of biomass power plant, the auxiliary consumption is coming out to be 13.33% of the gross electricity generated during the period [IRL#54]. Thus, the indicated value of auxiliary consumption as 10% of the gross electricity generated can be deemed appropriate and conservative in context of the project activity.

Utilities (water) price – The water price taken as 8000 INR/day (800 Litres per day procured at INR 10 per Litre) has been verified against the various supplier quotations and found to be conservative [IRL#6, 45]. The supplier quotations indicate higher value of water price of around INR 50 – 60 per Litre [IRL#45]. Thus, the indicated value of water price can be deemed appropriate and conservative in context of the project activity.

Depreciation – The depreciation rates assumed in IRR analysis were earlier based on straight line depreciation rate as per Company Act which has been revised to the rates as per Income tax act. The depreciation rates are confirmed to be applied correctly and as per the Indian Income Tax Act [IRL#49].

Tax rate – All the taxes are confirmed to be applied correctly and as per the Indian Income Tax Act.

Based on the data in the DPR the project IRR without CDM revenue has been estimated to be 10.74%; while the project IRR including the CDM revenue is 17.99 % which shows that the proposed project is not financially viable without CDM revenue. The investment analysis has been performed for 20 years considering annual operational costs, taxes, total investments and revenue from power generation. All the taxes are confirmed to be applied correctly and as per the Indian Income Tax Act.

Sensitivity analysis – The sensitivity analysis has been carried out for 10% variation in following key parameters: power generation, fuel cost, fixed investment cost (i.e, total investment cost excluding the margin money for working capital) and O&M costs.

- The IRR crosses the benchmark at 10% increase in PLF and 10% decrease in fuel cost or initial investment cost. Nevertheless, these situations are deemed unlikely.

A 10% increase in PLF would mean achieving a PLF of almost 93.5%, which is considered difficult to be sustained in the long run in context of the project activity. A certificate from the boiler manufacturer has also been submitted which clearly states that with rice husk as a fuel the efficiency of the system will not be more than 85% [IRL#12].

The IRR crosses the benchmark at 10% decreased fuel price. The decrease in fuel prices is deemed unlikely as it has been verified with the rice husk price trend for the period 2006 to 2008. Benchmark is crossing at INR 1260 per ton of biomass. This scenario however is considered not likely to occur, because the biomass price generally is expected to increase due to an increased biomass market and an increased demand. Significant fuel price escalations are evidenced by a trend analysis, been carried out on the basis of various quotations received by SNIL for purchase of rice husk from March 2006 to December 2008 [IRL#20]. Furthermore a cross-check of public available information shows that actual fuel prices have a tendency of price increase every year. The recent tariff order issued by Chhattisgarh State Electricity Regulatory Commission (http://cserc.gov.in/pdf/25-2009%20final.pdf) presents the fact of price rise of Biomass (Rice Husk) in the region. The Commission has also given an indication of landed cost of biomass as INR 1615 per ton [IRL#53].

Also, the IRR crosses the benchmark at 10% decrease in the fixed investment cost. This too is deemed unlikely in the context that the fixed investment cost i.e, around INR 32.1 Million/MW is already lower than the normative figures indicated in the CSERC tariff order as INR 39 Million/MW and estimate of INR 40 Million/MW indicated by CEA [IRL#6, 42, 46]. Further, since the project is already commissioned therefore the actual purchase orders have been checked indicating the total fixed investment as INR 389.057 Million which is higher than the value referred in the DPR and the PDD [IRL#48]. Thus, 10% decrease in the initial investment cost is an unlikely scenario.

The sensitivity analysis indicates that the benchmark is not crossed for the variation of O&M costs thereby indicating that the economic un-attractiveness is robust to reasonable variations in the critical assumptions.

In light of the above investment analysis, based on submitted documentation, argumentation and further cross checks from publicly available sources the project activity has thus been validated as an additional project.

3.7 Monitoring plan

The monitoring plan given in the PDD is as per the methodology AMS I.D/ Version 13. It includes all the parameters to arrive at the estimation of the baseline emissions and there by emission reductions. The selected monitoring methodology is deemed to be the most applicable for this project. The application of the monitoring methodology is transparent. As the calculation of the emission factor is based on an ex-ante approach, the monitoring will involve;

- gross electricity generation
- auxiliary power consumption
- net electricity supplied to the plant or grid
- quantity of biomass used in the plant
- quality of biomass fuel
- quantity of fossil fuel used

The baseline emission is being calculated as the product of the net electricity generated from biomass and the combined margin grid emission factor of the western regional grid, which is fixed ex-ante for the crediting period.
Direct emissions due to usage of coal consumption during non-availability of biomass i.e. incase of exigencies to the project site is considered as project emissions. The availability of surplus biomass in the region will be monitored every year during the crediting period. The electricity meters and weigh bridge meters will be calibrated as per the manufacturer's standards. The net electricity sup-

plied to the plant or grid will be cross checked against the production plant data. Quantity of fuel consumed will be cross-checked against the finance records. Information on accuracy levels of measurement instruments is included in the revised PDD. Recording frequency and archiving methods are considered being reasonable and appropriate as well.

No leakage is evident in the project activity as per the applied methodology.

TÜV SÜD confirms that the monitoring plan described in the PDD is in compliance with the requirements in the applied methodology.

3.8 Sustainable development

The project will lead to sustainable development through employment generation, generation of clean energy The project activity does not result in any negative impacts on environment The project has received the host country approval letter which indicates that the project will contribute to the sustainable development in India [IRL#7].

3.9 Local stakeholder consultation

Relevant stakeholders have been consulted for the project. Appropriate media, i.e., local newspaper has been used to invite the local stakeholders for a meeting. There were no adverse comments received for the project. The stated information in the PDD has been validated based on the submitted documents as follows:

1. Invitation for stakeholder consultation meeting in the local newspaper [IRL # 21]
2. Minutes of meeting of the stakeholder consultation meeting [IRL # 22,23]

As a result, TÜV SÜD considers the applied process for the local stakeholder consultation as adequate and appropriate.

3.10 Environmental impacts

The proposed project activity contributes to generation of green power and is expected to benefit the economic development of a backward region. Thus, the project activity is expected to have only beneficial impacts and no adverse impacts are foreseen. The proponent has conducted rapid environmental impact assessment study in accordance with the Ministry of Environment and Forests, Government of India. The detailed Environmental Impact Assessment report, prepared by Anacon Laboratories Pvt. Ltd. has been verified by TUV-SUD.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, stakeholders and non-governmental organisations during a period of 30 days.

The following table presents all key information on this process:

webpage: http://cdm.unfccc.int/Projects/Validation/DB/OF0LFQC2Y9Z7WJ3Z8YJL8JI2VFHPHV/view.html	
Starting date of the global stakeholder consultation process: GSP: 13-12-2007	
Comment submitted by: None	**Issues raised:** -
Response by TÜV SÜD: -	

webpage: https://cdm.unfccc.int/Projects/Validation/DB/00MQX9S5UCU9OOVYT8HPMUXYRSEO9K/view.html	
Starting date of the global stakeholder consultation process: Re-GSP: 12-11-2008	
Comment submitted by: None	**Issues raised:** -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed validation in accordance with the VVM, version 1, (EB44, Annex 3) of the following proposed CDM project activity:

Shree Nakoda Ispat Ltd 12 MW Biomass power generation project

Standard auditing techniques have been used for the validation of the project. Methodology-specific protocol customised for the project has been prepared to carry out the audit and present the outcome in a transparent and comprehensive manner.

The review of the project design documentation, the subsequent follow-up interviews and the further cross check of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions in a measurable and verifiable manner as specified within the final PDD version.

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

Munich, 02-06-2010

Thomas Kleiser

Certification Body "Climate and Energy"

India, 02-06-2010

Bratin Roy

Assessment Team Leader

Annex 1: Validation Protocol

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of small-scale project activity				
A.1. Title of the small-scale project activity				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1,2,31	Yes, Project title clearly enables to identify the project activity. The project activity is a 12 MW Biomass power generation project. **Corrective Action Request No.1.** Please ensure proper font size as per the PDD format	CAR	☑
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1,2,	PDD submitted is version 01 and is dated 15/11/2007 as specified in section A.1 of the PDD.	☑	☑
A.1.3. Is this consistent with the time line of the project's history?	1,2,5,10,14	Decision to implement the project with the help of CDM revenue has been taken on15th April 2006 and purchase order of the equipments has been placed on1st November 2006. **Clarification Request No. 1.** Please clarify why there was a delay in starting the CDM validation process when it was already decided to implement the project in April 2006, considering the CDM revenues. **Corrective Action Request No.2.** Please include in the PDD the latest project schedule indicating current status and when it is likely to be commissioned.	CR CAR	☑
A.2. Description of the small-scale project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	1,2,10,31	Yes, the project activity is a grid connected rice husk based power plant combusting rice husk in the 70 TPH boiler, with a high pressure steam turbine configuration having a capacity of 12 MW.	☑	☑
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1,2,3,4,5,6,7,1	Following documents were delivered as an evidence for the project activity o Detail Project Report	☑	☑

	0	o EIA o Letter of Board approval o Equipment purchase agreement		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1,2,4,6,31	Yes, the information is consistent. However, **Clarification Request No. 2.** There is an inconsistency about the annual out put of the proposed project as per PDD (80.78 million units) and the DPR (95.04 million units). Revise the PDD accordingly.	CR	☑
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1,2,31	Yes, the information within the PDD is consistent with the provided proof of documents.	☑	☑
A.2.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?	1,2,31	Yes, the project activity is rice-husk based biomass power project, which would supply electricity to the western region grid of India. The grid is dominated by fossil fuel based power plants.	☑	☑
A.2.6. Is the brief explanation how the project will reduce greenhouse gas emission transparent and suitable?	1,2,31	Yes, same is stated in the PDD.	☑	☑
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?	1,2,31	Yes, the form is correctly applied. Shree Nakoda Ispat Ltd. is considered as the only project participant.	☑	☑
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1,2,30	Modality of communication needs to be submitted.	O	☑
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1,2,31	Yes, the same is correctly mentioned in Annex.1.	☑	☑
A.4. Technical description of the small-scale project activity				

A.4.1. *Location of the small-scale project activity*				
A.4.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1,2,31	The project location should be clearly identified according to the PDD. **Corrective Action Request No.3.** PDD should mention the name of nearest railway station and also provide the supportive documents of the project activity GPS co-ordinate mentioned in the PDD.	CAR	☑
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1,2,5,6,7,10	EIA, Consent to establish, Consent to operate, power purchase agreement and implementation agreement with supplier.	☑	☑
A.4.2. *Type and category(ies) and technology/measure of the small-scale project activity*				
A.4.2.1. To which type(s) does the project activity belong to? Is the type correctly identified and indicated?	1,2,3,31	The type is correctly identified and indicated in the PDD (chapter A.4.2). The project is Type I-renewable energy project.	☑	☑
A.4.2.2. To which category (ies) does the project activity belong to? Is the category correctly identified and indicated?	1,2,3,31	The category is correctly identified and indicated in the PDD (chapter A.4.2). The projects uses AMS I.D, version -13 , which is appropriate considering that project is a biomass power project and will supply electricity to grid.	☑	☑
A.4.2.3. Does the technical design of the project activity reflect current good practices?	1,2,3,31	Yes, the project design engineering does reflect current good practices. During feasibility studies carried out in advance to the project implementation, consulting and engineering companies confirmed that project activity technology will reduce the GHG emission significantly.	☑	☑
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country (ies)?	1,2,12	Technology will be supplied by Qingdao Jieneng-Power Station Engineering Co. Ltd., Republic of China which is a Non Annex-1-country according to UNFCCC modalities and procedure. **Corrective Action Request No.4.** Provide information in the PDD, if any technology has been trans-	CAR	☑

		ferred in project activity from Annex-I countries.		
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	1,2,12,13	Yes, the technology implemented by the project activity is environmentally safe.	☑	☑
A.4.2.6. Is the information provided in compliance with actual situation or planning?	1,2,12,13	Yes, the technical data provided in the PDD is consistent with the equipment purchase agreement. **Corrective Action Request No.5.** Please use SI units for the parameters.	CAR	☑
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2,12,13	The project uses energy efficient boiler along with the suitable turbine and it is expected significant better performance than any commonly used common practice technologies in the host country.	☑	☑
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2,12,13,31	It is not likely that the key technology applied will be substituted by other or more efficient technologies.	☑	☑
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1,2,31	The initial training requirements have been sufficiently supplied by the equipment supplier and in addition trained staff has been recruited to operate and maintain the plant. **Clarification Request No. 3.** Please provide a training and maintenance procedure of the project activity.	CR	☑
A.4.2.10. Is information available on the demand and requirements for training and maintenance?	1,2,31	Please see the above in A.4.2.9	☑	☑
A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	1,2,14	Yes, a project schedule of the project activity has been submitted to DOE.	☑	☑
A.4.3. *Estimated amount of emission reductions over the chosen crediting period*				

A.4.3.1. Is the form required for the indication of projected emission reductions correctly applied?	1,2,31,32	Yes, It has been correctly applied.	☑	☑
A.4.3.2. Are the figures provided consistent with other data presented in the PDD?	1,2,31,32	Yes, the figures are consistent within the PDD.	☑	☑
A.4.3.3. Are the figures consistent with the small-scale criteria for the used Type?	1,2,3,4	The project is Type I, and is eligible to use this type since installed capacity is less than 15MW.	☑	☑
A.4.4. *Public funding of the small-scale project activity*				
A.4.4.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1,2,11,16,17	Yes, the project has taken loan from Indian banks	☑	☑
A.4.4.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1,2,31	Yes, the statement is consistent within the PDD.	☑	☑
A.4.5. *Confirmation that the small-scale project activity is not a debundled component of a large scale project activity*				
A.4.5.1. Is there a registered small-scale CDM project activity or an application to register another small-scale CDM project activity: with the following characteristics:	1,2,31	Debundling checklist / Yes / No the same project participants? / No In the same project category and technology/measure? / No Registered within previous two years? Or in registration process? / No Whose boundary is within 1 km of the project boundary of the small scale project activity under consideration? / No **Corrective Action Request No.6.** PDD should include a list of other projects for same location of project activity also comprises methodologies and categories they used and clearly demonstrate that there is no debundling.	CAR	☑

A.4.5.2. If the answer to all the above question is '**Yes**' then does the total size of the small scale project activity combined with previously registered small scale CDM project activity exceeds the limits of small scale CDM project activities?	1,2 ,31	See section A.4.5.1.	CAR	☑
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity				
B.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1,2,3 ,31	Yes, the latest version AMSI.D (version 13) has been applied and reference is clearly indicated in section B.1.	☑	☑
B.1.1.2. Is the applied version the most recent one and / or is this version still applicable?	1,2, 31	Yes, version 13 of AMS I.D is the latest version and is still applicable.	☑	☑
B.2. Justification of the choice of the project category				
B.2.1. Is the applied methodology considered the most appropriate one?	1,2,3	Yes, the applied approved methodology AMS I.D "Grid connected renewable electricity generation from renewable sources" version 13 is appropriate for this project. The project activity is the biomass based power generation project of 12 MW capacity supplying electricity after full fill the captive consumption of the plant to fossils fuel based western grid.	☑	☑
B.2.1.1. Criterion 1: This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal and renewable biomass, that supply electricity to and/or displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit.	1,2,3 1	Applicability checklist / Yes / No / NA Criterion discussed in the PDD? Yes Compliance provable? Yes Compliance verified? Yes See B.2.1.	☑	☑

B.2.1.2. Criterion 2: If the unit added has both renewable and non-renewable components (e.g.. a wind/diesel unit), the eligibility limit of 15MW for a small-scale CDM project activity applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15MW.	1,2,3 1	The project utilizes 100% biomass as a fuel, hence this is not applicable.	☑	☑
B.2.1.3. Criterion 3: Combined heat and power (co-generation) systems that supply electricity to and/or displace electricity from a grid are **not** included in this category.	1,2,3 1	As project activity will be only generating the power from biomass, hence this is not applicable.	☑	☑
B.2.1.4. Criterion 4: In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	1,2,3 1	As the project is new establishment of its kind i.e. biomass (rice-husk) based power plant, hence this is not applicable. However, **Corrective Action Request No.7.** Clarify in the PDD if the project activity involves any addition of power generation units at an existing power plant.	CAR	☑
B.2.1.5. Criterion 5: Project activities that seek to retrofit or modify an existing facility for renewable energy generation are included in this category. To qualify as a small scale project, the total output of the modified or retrofitted unit shall not exceed the limit of 15 MW.	1,2,3 1	See B.2.1.4	☑	☑
B.2.1.6. If the project is under a programme of activities, have all the applicability criteria and additional requirements been	1,2,3 1	No, the project activity is not under a programme of activities.	☑	☑

	considered according to the methodology?				
B.3. Description of the project boundary					
B.3.1.	Does the project boundary include physical, geographical site where the project activity takes place?	1,2,8,31	Yes, the physical site of the project activity is included in the project boundary. However, **Corrective Action Request No.8.** Flow chart diagram mentioned in the PDD is not transparently demonstrating the actual project activity process as defined in the PDD and submitted supportive documents. Correct it.	CAR	☑
B.3.2.	Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1,2,8,31	Yes, It has been verified at site.	☑	☑
B.4. Description of baseline and its development					
B.4.1.	Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1,2,31,32	Generation of electricity at gird has been considered as the applicable baseline scenario, in line with the methodology. **Clarification Request No. 4.** Please provide the excel sheet of the grid emission factor calculation, which includes the list of power plants, energy generation and fuel consumption data i.e. used to calculate OM and BM factors.	CR	☑
B.4.2.	Does the project identifies correctly and excludes those options not in line with regulatory or legal requirements?	1,2,3,31,32	The only baseline scenario discussed is generation of equivalent electricity at grid, in the absence of project activity. This scenario is in line with regulatory and legal requirements.	☑	☑
B.4.3.	Have applicable regulatory or legal requirements been identified?	1,2,3,31,32	See B.4.2.	☑	☑
B.4.4.	Does the PDD identify the most likely baseline scenario in absence of the	1,2,3,31,3	Grid electricity is considered as baseline scenario for this project activity.	☑	☑

	project activity?	2			
B.4.5.	Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc?	1,2,3 ,31,3 2	The project documents reviewed by the audit team clearly indicate that project activity is being implemented to supply electricity to grid after fulfilling the captive requirement of the Shree Nakoda Ispat and hence the identified baseline scenario is deemed appropriate.	☑	☑
B.4.6.	Is the identified baseline scenario in line with regulatory or legal requirements?	1,2,3	See B.4.2.	☑	☑
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:					
If the additionality tool has been used please answer B.5.1 to B.5.13					
B.5.1.	Has CDM been considered before the starting date of the project activity? What kind of evidences is available?	1,2,3	Additionality tool has not been used, hence not applicable. Further, please refer B.5.14	☑	☑
B.5.2.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1,2,3	Not applicable.	☑	☑
B.5.3.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1,2,3	Not applicable.	☑	☑
B.5.4.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1,2,3	Not applicable.	☑	☑
B.5.5.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit	1,2,3	Not applicable.	☑	☑

	ratio, or (levelized) unit cost)?				
B.5.6.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	1,2,3	Not applicable.	☑	☑
B.5.7.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	1,2,3	Not applicable.	☑	☑
B.5.8.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1,2,3	Not applicable.	☑	☑
B.5.9.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1,2,3	Not applicable.	☑	☑
B.5.10.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1,2,3	Not applicable.	☑	☑
B.5.11.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1,2,3	Not applicable.	☑	☑
B.5.12.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)? How?	1,2,3	Not applicable.	☑	☑

B.5.13.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers?	1,2,3	Not applicable.	☑	☑
If the additionality tool has not been used please answer B.5.14 to B.5.19					
B.5.14.	If the starting date of the project activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the project activity?	1,2,3,5,6,7,9,10,11,14,25,26,27,28	**Corrective Action Request No.9.** As the start date of the project activity is before validation, provide the evidence to prove that incentive from the CDM was seriously considered to proceed with the project activity. The same also needs to be incorporated in the PDD. **Corrective Action Request No.10.** The chronology of the key events (from inception till date) related to the project activity along with the supporting evidence needs to be submitted to demonstrate the delay in CDM process. The same also needs to be incorporated in the PDD.	CAR	☑
B.5.15.	Is a complete list of barriers developed that prevents the project activity to occur?	1,2,6,16,17,33	Yes, an investment barrier has been considered for this project activity and it is described in the PDD, section B.5.	☑	☑
B.5.16.	Does this list include at least one of the following barriers?	1,2,6,16,17,33 - 47	Yes. Barrier / Discussed? / Verifiable? Investment / Yes / Yes Technological / No / No Due to prevailing practice / No / No Other / --- / ---	☑	☑
B.5.17.	Does the discussion sufficiently take into account relevant national and/or sectoral policies?	1,2,6,16,17,33	The policies by state and central government to promote renewable energy projects have been discussed in the PDD.	☑	☑
B.5.18.	Is transparent and documented evidence provided on the existence and signifi-	1,2,6,16,1	**Clarification Request No. 5.**	CR	☑

	cance of these barriers?	7,33 - 54	1. The assumptions in the IRR calculations should be clearly referenced in the PDD and documentary evidence for the same should be provided. 2. The basis for taking lower rate for the captive power consumed should be provided. 3. The recent guidance by EB on IRR calculations should be followed properly. 4. Submit the evidence for IRR benchmark 12.25% used in the PDD. **Clarification Request No. 6.** The power distribution 75:25 (captive: grid) and the associated prices is not consistent within the PDD. The in-house requirement stated is 18 MW (12 MW biomass + 4.5 MW WHR). The in-firm power supply is maximum 25% as per our understanding.		
B.5.19.	Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	1,2,6 ,16,1 7,33 - 54	**Corrective Action Request No.11.** The other activities in the host country/region similar to the project activity have not been identified and properly analyzed in the PDD. Include the information and revise the PDD accordingly. **Corrective Action Request No.12.** Submit the documentary evidences that none of the other biomass power (rice-husk) project in the province of Chhattisgarh is a common practice. PDD should also clearly explain how CDM helps to overcome these barriers.	CAR	☑
B.6. Emissions reductions					
B.6.1.	*Explanation of methodological choices*				
B.6.1.1.	Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1,2,3 ,	Yes, the emission reductions are based on product of net electricity produced and grid emission factor.	☑	☑
B.6.1.2.	Is every selection of options offered by the	1,2	**Corrective Action Request No.13.**	CAR	☑

	methodology correctly justified and is this justification in line with the situation verified on-site?		The grid emission factor taken for the calculation of CER is old version. PP has to use the new-version.		
	Determination of project emissions (Comment on any line answered "No")				
B.6.1.3.	Component 1: emissions from use of fossil fuel	1,2,3,4,31	Project activity would be generating electricity primarily by utilising Biomass (rice-husk). Fossil fuels (coal) would not be used in the project activity during exigencies to a maximum limit of 25%. Project emission checklist: Yes / No Component discussed in the PDD? Yes Formulae correctly applied? No **Corrective Action Request No.14.** Please clarify, why the project emissions have been considered as "0" if coal usage during exigencies is intended. **Corrective Action Request No.15.** Please use the terminology as prescribed in Annex 1 of the following web-link - http://cdm.unfccc.int/Reference/Documents/Guidel_Pdd_most_recent/English/Guidelines_CDMPDD_NM.pdf	CAR	☑
B.6.1.4.	Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	1,2,31	Yes, the baseline emissions are based on product of net electricity generated and grid emission factor.	☑	☑
B.6.1.5.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1,2,15,31	The project proponent will be procuring the required quantity of biomass (rice husk) from the sources within 50 Km radius distance from the project site. A "Biomass availability Report" prepared by third party establishes surplus availability of biomass in the districts falling within 50 Km radius from the project site. The "Biomass availability Report" is provided along with the PDD. Therefore, the leakage due to transportation of the biomass is not	☑	☑

		considered		
B.6.1.6. Are the formulae required for the determination of emission reductions correctly presented?	1,2,3 1,32	Yes, the emission reductions are based on product of net electricity produced and grid emission factor.	☑	☑
B.6.2. *Data and parameters that are available at validation*				
B.6.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1,2,3 1	**Corrective Action Request No.16.** The PDD refers to various sources from where the data has been collected to calculate the grid emission factor but no data is provided in the PDD. The grid generation data by individual power source, fuel consumption, power plant efficiencies, calorific value of each fuels, emission factor of each fuel, list of power plants considered for build margin and the generation by power plants considered for operating margin etc. should be provided in the PDD. Also, provide hyperlink to all data sources referred in the PDD.	CAR	☑
B.6.2.2. Parameter Title: Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modification activities)	1,2	No retrofit and modification activity is involved	☑	☑
B.6.2.3. Parameter Title: Emission factor of the grid (CM)	1,2,3 1,32	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? No Correct value provided? No Has this value been verified? No	CAR	☑

		Choice of data correctly justified? — Yes Measurement method correctly described? — N/A The emission factor of the grid has been taken as the one provided by Central Electricity Authority (CEA) of India. The emission factor has been calculated as per the guidance given in the approved methodology ACM0002. **Corrective Action Request No.17.** Please clarify, which version of the grid emission factor for the calculation has been referred.		
B.6.2.4. Parameter Title: Operating margin (OM) emission factor of the grid	1,2,3 1,32	See B.6.2.1	CAR	☑
B.6.2.5. Parameter Title: Build margin (BM) emission factor of the grid	1,2,3 1,32	See B.6.2.1	CAR	☑
B.6.2.6. Parameter Title: fuel consumption of each power source	1,2,3 1	See B.6.2.1	CAR	☑
B.6.2.7. Parameter Title: emission coefficient of each fuel	1,2,3 1	See B.6.2.1	CAR	☑
B.6.2.8. Parameter Title: electricity generation of each power source	1,2,3 1	See B.6.2.1	CAR	☑
B.6.2.9. Parameter Title: surface area of full reservoir level (for new hydroelectric activities only)	1,2,3 1	NA	☑	☑
B.6.2.10. Parameter Title: fraction of time with low costs /must run	1,2,3 1	NA	☑	☑

plant at the margin (for simple adjusted OM only)				
B.6.2.11. Parameter Title: electricity imports	1,2,3 1	NA	☑	☑
B.6.2.12. Parameter Title: CO_2 emission coefficient of fuels used in connected grids	1,2,3 1	The emission factor of grids from where electricity is imported has been used directly from the published data.	☑	☑
B.6.3. *Ex-ante calculation of emission reductions*				
B.6.3.1. Is the projection based on the same procedures as used for future monitoring? What kind of procedure is used?	1,2,3 1	Yes, being a biomass power project, the net electricity to grid is the required parameter for both baseline calculation and future monitoring.	☑	☑
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1,2,3 1,32	Yes, the calculation has been verified by DOE.	☑	☑
B.6.3.3. If there is more than one component of the project activity, then, are emission reduction calculations provided separately for each component?	1,2	No, only one component is there in the project activity.	☑	☑
B.6.3.4. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1,2	Yes, consistent with the PDD.	☑	☑
B.6.4. *Summary of the ex-ante estimation of emission reductions*				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1,2,3 2	The project activity does not lead to any GHG emission due to usage of biomass residues for power generation except for coal usage during exigencies.	☑	☑
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1,2,3 2	Yes, table is correctly applied.	☑	☑
B.6.4.3. If the project activity involves more than one component, is separate table included	1,2	No, only one component is there in the project activity.	☑	☑

	for each of the component.				
B.6.4.4.	Do these values comply with small-scale criteria for every year?	1,2,32	Yes.	☑	☑
B.6.4.5.	Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1,2,31,32	The life time of the project is expected to be 20 years as mentioned in the PDD and the fixed crediting period of 10 years is chosen. The yearly emission reduction and total emission reduction are indicated in B.6.4 table in the PDD.	☑	☑
B.6.4.6.	Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1,2,31	Yes.	☑	☑
B.7.	**Application of the monitoring methodology and description of the monitoring plan**				
B.7.1.	*Data and parameters monitored*				
B.7.1.1.	Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1,2,3,31	Yes, the net electricity supplied to the project activity and the power fed from the grid will be measured and recorded separately. **Corrective Action Request No.18.** The accuracy of electricity meters shall be described in the revised PDD. Furthermore, a diagram of these meters shall be presented in the revised PDD. **Corrective Action Request No.19.** PDD should incorporate a parameter in the monitoring plan for surplus availability of biomass in the crediting periods. **Clarification Request No. 7.** Clarify how the joint metering data can be cross-checked with control room data. Include the required parameters in the monitoring plan.	CAR CR	☑
	Comment on any line answered with "No"				
B.7.1.1.1.	Parameter Title: Electricity generated by the renewable technology	1,2,3	Monitoring Checklist | Yes / No	CAR	☑

Table 1 is applicable to AMS I.D. 13

		Title in line with methodology? — No Data unit correctly expressed? — Yes Appropriate description of parameter? — Yes Source clearly referenced? — Yes Correct value provided for estimation? — Yes Has this value been verified? — Yes Measurement method correctly described? — No Correct reference to standards? — No Indication of accuracy provided? — No QA/QC procedures described? — Yes QA/QC procedures appropriate? — No See B.7.1.1		
B.7.1.1.2. Amount of biomass input (if applicable)	1,2,15,18	**Corrective Action Request No.20.** PDD should demonstrate the input of biomass for the calculation of electricity per MW and should submit an evidence for the same.	☑	☑
B.7.1.1.3. Amount of fossil fuel (if applicable)	1,2	Yes, it has been included.	☑	☑
B.7.2. *Description of the monitoring plan*				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1,2,31	**Corrective Action Request No.21.** A documented procedure defining roles and responsibilities for ensuring accurate data monitoring, collection, transfer and reporting needs to be developed. The procedure should also have the process of calibration of measuring equipments, data adjustments, internal audits & emergency preparedness leading to data losses.	CAR	☑
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,2,31	See B.7.2.1	CAR	☑
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1,2,31	See B.7.2.1	CAR	☑

B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1,2,3 1	See B.7.2.1	CAR	☑
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
B.8.1.1. Is there any indication of a date when the baseline was determined?	1,2	Yes, the date has been mentioned in the PDD.	☑	☑
B.8.1.2. Has dd/mm/yyyy format been used to indicate the date?	1,2	Yes.	☑	☑
B.8.1.3. Is this consistent with the time line of the PDD history?		Yes, the consistency is evident with the PDD history.	☑	☑
B.8.1.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1,2	Yes, the Clean Energy Finance Committee, Mitsubishi UFJ Securities Company Co. Ltd. has determined the baseline and responsible for monitoring plan also during the crediting periods of the project activity. The entity is not the project participant.	☑	☑
B.8.1.5. Is information provided whether this person / entity is also considered a project participant?	1,2	See above in B.8.1.4	☑	☑
C. Duration of the project activity / crediting period				
C.1. Duration of the project activity				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable? Is it the earliest date of construction, implementation or real action?	1,2,3 1	Yes, operational lifetime and the start date of project activity is mentioned in the PDD. **Clarification Request No. 8.** Project starting date mentioned in the section C.1.1 is not matching with document submitted by the project proponent. Clarify it. As well as also submit the supportive document for the lifetime of the project activity.	CR	☑

C.2. Choice of the crediting period and related information				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1,2,3 1,32	Yes, Fixed crediting period has been chosen and defined within the PDD.	☑	☑
C.2.2. Has dd/mm/yyyy format been used to indicate the start date of the crediting period.	1,2,3 1,32	Yes, the format is correctly used to indicate the start date of the crediting period.	☑	☑
D. Environmental impacts				
D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved? If yes answer also D.1.2 to D.1.4	1,2,7	Yes, There is no negative environment impact due to project activity and "No objection certificate" for establishing the project activity for the project activity has been received from state pollution control board State. **Corrective Action Request No.22.** Please mention somewhere in section D.1.1. of the PDD about the EIA guidelines of the host country in the revised PDD and also submit the approval of EIA.	CAR	☑
D.1.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1,2,7	Please see above section D.1.1.	☑	☑
D.1.3. Will the project create any adverse environmental effects?	1,2,7	Project is not expect to create any adverse environmental effects	☑	☑
D.1.4. Were trans-boundary environmental impacts identified in the analysis?	1,2,7	No trans-boundary environmental impacts are anticipated	☑	☑
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party				

D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1,2,7	Yes, the impacts in project scenarios have been considered	☑	☑
D.2.2. Does the project comply with environmental legislation in the host country?	1,2,7	EIA has been approved by authorized organisation. Please see A.4.1.2.	☑	☑
E. Stakeholders' comments				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.1.1. Have relevant stakeholders been consulted?	1,2,22,23,24	Yes, stakeholder meeting was held on 10.05.2007. No negative comments were received from the participants. The relevant documents have been reviewed by the audit team.	☑	☑
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1,2,22,23,24	Yes, newspaper announcement, invitations letter pamphlets were used.	☑	☑
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1,2,22,23,24	Yes, stakeholder consultation process has been carried out in accordance with such regulations.	☑	☑
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1,2,22,23,24	Yes, confirmed with the detailed documents. The process is described in a complete and transparent manner.	☑	☑
E.2. Summary of the comments received				
E.2.1. Is a summary of the received stakeholder comments provided?	1,2,22,23,24	Yes, summary and comments of stakeholders meeting is given in the PDD.	☑	☑
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stake-	1,2,2	All comments received from the stakeholders' were in favour of	☑	☑

holder comments received?	2,23, 24	the proposed project.		
F. Annexes 1 – 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	1,2	Yes, the information contains complete address.	☑	☑
F.1.2. Is the information on all private participants and directly involved Parties presented?	1,2	Yes, all information has been presented	☑	☑
F.2. Annex 2: Information regarding public funding				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1,2,16,17	Yes, there is no public funding taking place; all costs are covered by bank loans and the project proponent.	☑	☑
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1,2,16,17	Please see F.2.1.	☑	☑
F.3. Annex 3: Baseline information				
F.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	1,2	Yes, the input data to calculate OM and BM are provided in the B.6.3.	☑	☑
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1,2	Yes, the data have been verified by the audit team.	☑	☑
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?	1,2	Yes.	☑	☑
F.4. Annex 4: Monitoring information				

F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1,2	Monitoring information has been provided in section B.7 of the PDD.	☑	☑
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1,2	Please see F.4.1.	☑	☑
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1,2	Please see F.4.1.	☑	☑

Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action re-quests by validation team	Ref. to table 1	Summary of project owner response	Validation team Conclusion
Open Issue Letter from the DNA and Modalities of communication need to be submitted	A.3.2.	The approval letter from DNA is awaited **PP Response** The HCA letter and MOC has been submitted to DOE.	The DNA approval letter (HCA) and MoC are still not submitted. **Final response by audit team** The same has been submitted. Hence the issue is closed. ☑
Corrective Action Request No.1. Please ensure proper font size as per the PDD format	A.1.1	The font size of the PDD has been modified in line with standard PDD format. **PP response** Corrected in the PDD.	The font size has been maintained as per the PDD format but the date of the version of the PDD should also be updated with every revision. **Final response by audit team** Date of revision and version no. of the PDD has been updated; hence the issue is resolved now. ☑
Corrective Action Request No.2. Please include in the PDD the latest project schedule indicating current status and when it is likely to be commissioned.	A.1.3	The project is likely to be commissioned in September 2008. Mentioned in Section A.2	The status of the project has been stated in the revised PDD. Hence the issue is now resolved. ☑
Corrective Action Request No.3. Kindly mention the name of nearest railway station and also provide the supportive documents of the project	A.4.1.1	The nearest railway station is Raipur, approx. 11 km from the project site. The GPS coordinates mentioned in the PDD have been taken from the website	Coordinates mentioned in the PDD are not inline with the source given here.

activity GPS coordinate mentioned in the PDD.		http://wikimapia.org/3020917/Shree_Nakoda_Ispat_Ltd. Mentioned in Section A.4.1.4 **PP response** Corrected in the PDD.	**Final response by audit team** It is corrected in the PDD and also web-link is provided. Hence the issue is resolved. ☑
Corrective Action Request No.4. Provide information if any technology has been transferred in project activity from Annex-I countries.	A.4.2.4	There is no technology transfer from Annex-I countries. Mentioned in Section A.4.2	Same has been mentioned in the PDD as technology is readily available. This issue is now resolved. ☑
Corrective Action Request No.5. Please use SI units for the parameters.	A.4.2.6	SI units have been used in the PDD.	The same has been incorporate in the PDD. This issue is now resolved. ☑
Corrective Action Request No.6. PDD should include a list of other projects for same location of project activity also comprises methodologies and categories they used and clearly demonstrate that there is no de-bundling.	A.4.5.1	The project proponent has a registered Large Scale CDM project located at same site. However, the present project activity is not a debundled component of the earlier large scale project activity, because the present project activity doesn't fall under same project category and technology/measure. The details are provided in Section A.4.5	The same has been incorporated in the PDD and also web link is given and been verified. This issue is now resolved. ☑
Corrective Action Request No.7. Clarify in the PDD if the project activity involves any addition of power generation units at an existing power plant.	B.2.1.4	The project activity does not involve addition of power generation units at an existing power plant, as already specified in Section B.2 (Point 4)	The point has been addressed in the revised PDD. This issue is now resolved. ☑
Corrective Action Request No.8. Flow chart diagram mentioned in the PDD is not transparently demonstrating the actual project activity proc-	B.3.1	Corrected in Section B.3.	The flowchart has been corrected in the revised PDD. This issue is now resolved.

ess as defined in the PDD and submitted supportive documents. Correct it.			☑
Corrective Action Request No.9. As the start date of the project activity is before validation, provide the evidence to prove that incentive from the CDM was seriously considered to proceed with the project activity. The same also needs to be incorporated in the PDD.	B.5.14	The chronology of events evidencing the prior consideration of CDM as well as CDM initiatives in parallel with the project implementation have been incorporated in the PDD in section A.2	PP has submitted the DPR which is prepared by a Chartered Accountant (third party) and submitted to PP on 28th March 2006. Based on DPR, Board has taken decision that the project will be initiated as a CDM project. Letter of Board approval, dated 15th April 2006 has also provided to DOE. Furthermore, the purchase order was placed on 1st Nov, 06 and parallel CDM activity had been started which is very much clear from the chronology. PP has submitted all the documents and evidence which proves that the CDM revenue was seriously considered. Hence the issue is resolved. ☑
Corrective Action Request No.10. The chronology of the key events (from inception till date) related to the project activity along with the supporting evidence needs to be submitted to demonstrate the delay in CDM process. The same also needs to be incorporated in the PDD.	B.5.14	The chronology of events evidencing the CDM initiatives in parallel with the project implementation have been incorporated in the PDD in section A.2 Supporting documents to this effect are being submitted to the DoE.	The same has been incorporated in the PDD and the supportive of the key events has been submitted. PP has described in detail for the delay in the CDM process in the PDD under section A.2 and the summary is provided in a tabular format (chronology). Further, the CDM consideration has been removed and restated in

			revised PDD section B.5. Hence the issue is resolved. ☑
Corrective Action Request No.11. The other activities in the host country/region similar to the project activity have not been identified and properly analyzed in the PDD. Include the information and revise the PDD accordingly.	B.5.19	Mentioned under Section B.5 **PP response** The other activities in the region similar to the project activity have been discussed in section B.5 identified and proof for CDM consideration of similar projects in the region have been provided in the PDD. **Further PP response** Since the additionality of the project activity is shown by financial barrier, this section is removed from the PDD.	The list should be incorporated in the PDD with clear references. Moreover, the enclosure A has not been provided to DOE. **Response by audit team** Section B.5 has been revised accordingly and enclosure A is also submitted. **Final response by audit team** The additionality of the project has been demonstrated by investment analysis. Thus this issue is closed. ☑
Corrective Action Request No.12. Submit the documentary evidences that none of the other biomass power (rice-husk) project in the province of Chhattisgarh is a common practice. PDD should also clearly explain how CDM helps to overcome these barriers.	B.5.19	Mentioned under Section B.5 **PP response** The Appendix A showing reference that all other biomass based power generation projects in the region have applied for CDM benefits is attached in the PDD. **Further PP response** Since the additionality of the project activity is shown by financial barrier, this section is removed from the PDD.	Same as above. The list should be incorporated in the PDD with clear references. **Final response by audit team** Appendix A is incorporated in the PDD. It is very descriptive too. All biomass based power projects in this region are included in this list. **Final response by audit team** The additionality of the project has been demonstrated by investment analysis. Thus this issue is closed.

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Corrective Action Request No.13. The grid emission factor taken for the calculation of CER is old version. PP has to use the new-version.	B.6.1.2	The CER calculation has been updated using the latest CEA Grid emission database Ver 4.	PDD and excel sheet has been updated as per new CEA data base (version-4). The revised PDD and excel has been submitted to DOE. Hence the issue is closed. ☑
Corrective Action Request No.14. Please clarify, why the project emissions have been considered as "0" if coal usage during exigencies is intended.	B.6.1.3	The "Biomass Availability Report" suggests surplus availability of rice husk in the region and therefore the unit will not require using coal in the project activity. However, in case of usage of coal, CO_2 emissions due to combustion of coal will be considered as project emission and subtracted from the baseline emission, as mentioned in the PDD.	The biomass availability study carried out by the Chhattisgarh Pradesh Rice Millers Association has been provided which indicates surplus biomass availability. This issue is now resolved. ☑
Corrective Action Request No.15. Please use the terminology as prescribed in Annex 1 of the following web-link - http://cdm.unfccc.int/Reference/Documents/Guidel_Pdd_most_recent/English/Guidelines_CDMPDD_NM.pdf	B.6.1.3	The terminology as prescribed in Annex 1 of web-link - http://cdm.unfccc.int/Reference/Documents/Guidel_Pdd_most_recent/English/Guidelines_CDMPDD_NM.pdf have been duly used in the PDD	The PDD has been revised as per the guideline document. This issue is now resolved. ☑
Corrective Action Request No.16. The PDD refers to various sources from where the data has been collected to calculate the grid emission factor but no data is provided in the PDD. The grid generation data by individual power source, fuel consumption, power plant efficiencies, calorific value of each fuels, emission factor of each fuel, list of power plants considered for build margin and the generation by power plants considered for operating margin etc.	B.6.2.1	The CO_2 Emission Data (Version 02, Dated June 2007) published by Central Electricity Authority (CEA), Government of India has been used to calculate emission Factor. CEA data has been prepared in accordance with methodology ACM0002, Ver 06 and is available at http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm	The latest CO_2 grid emission factor database of CEA should be referred. The baseline determination date should also be modified accordingly. **Final response by audit team** The revised PDD with grid emission factor calculation has been submitted. Also the information

should be provided in the PDD. Also, provide hyperlink to all data sources referred in the PDD.		The details for OM, BM and CM calculated by CEA for different regional grids in line with methodology ACM0002, Ver-06, are given at Annexure -3. **PP response** The PDD has been updated.	has been checked with hyperlink of the CEA data base. Hence the issue is resolved. ☑
Corrective Action Request No.17. Please clarify, to which version of the grid emission factor calculation has been referred.	B.6.2.3	The CO_2 Emission Data (Version 02, Dated June 2007) published by Central Electricity Authority (CEA), Government of India has been used to calculate emission Factor. CEA data has been prepared in accordance with methodology ACM0002, Ver 06 and is available at http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm It is mentioned in section B.4 and in Annexure -3. **PP response** The PDD has been updated. It has been mentioned in the PDD under section B.4 and the detailed calculations have been in Annexure -3.	The latest CO_2 grid emission factor database of CEA should be referred. **Final response by audit team** The same has been clarified in the revised PDD. Hence the issue is resolved. ☑
Corrective Action Request No.18. The accuracy of electricity meters shall be described in the revised PDD. Furthermore, a diagram of these meters shall be presented in the revised PDD.	B.7.1.1	The electricity meters to be installed at the project site will be of 0.2 class accuracy. This is mentioned in the monitoring plan given as Annexure -4 and is supported by the electricity meters specifications given in the purchase order. **PP response** Mentioned in Section B.7.1	The accuracy of the meters should also be mentioned in section B.7.1 of the PDD. **Final response by audit team** It is incorporated in the PDD under section B.7.1. This has been cross checked by the supplier details.

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Corrective Action Request No.19. PDD should incorporate a parameter in the monitoring plan for surplus availability of biomass in the crediting periods.	B.7.1.1	Included in Section B.7.1	The parameter has been included in the revised PDD. This issue is now resolved. ☑
Corrective Action Request No.20. PDD should demonstrate the input of biomass for the calculation of electricity per MW and should submit an evidence for the same.	B.7.1.1.2	The specific fuel consumption in the power plant will be approximately 1.2 MT/ MWh (ex-ante estimation). It has been estimated as per the technical details of the turbine & the boiler as provided by the supplier (mentioned in the purchase orders) and actual calorific value analysis of the biomass sample (analysis report attached). The detailed calculations are provided in section B.7.1 under monitoring methodology for Quantity of Biomass used. **PP response** The analysis report for calorific value of rice husk is attached. S.I. units have been used in PDD.	Please submit the fuel calorific analysis report. The SI units should be used in the PDD. **Final response by audit team** The fuel analysis report has been provided. Hence the issue is resolved now. ☑
Corrective Action Request No.21. A documented procedure defining roles and responsibilities for ensuring accurate data monitoring, collection, transfer and reporting needs to be developed. The procedure should also have the process of calibration of measuring equipments, data adjustments, internal audits & emergency preparedness leading to data losses.	B.7.2.1	Included in the monitoring plan provided in Section B.7.2 and in Annexure-4	Same has been described in the revised PDD. This issue is now resolved. ☑
Corrective Action Request No.22. Please mention somewhere in section D.1.1. of the PDD about the EIA guidelines of the host country in the	D.1.1	The Project being a renewable energy biomass based power project does not fall under the purview of Environmental Impact Assessment (EIA) notification of 1994 of the Ministry	The same has been mentioned in the PDD. However reference is not mentioned in the PDD.

revised PDD and also submit the approval of EIA.		of Environment and Forest, Government of India. As per GOI notification dated June 13 2002, EIA is required for those industries /projects which are listed in predefined list of MoEF. The thermal plants with investment of less than Rs. 100 Crore have been excluded from the list. Hence the EIA is not required for the project activity. Mentioned in Section D.1.1 **PP response** Mentioned in PDD in Section D.1.1 as footnote 10.	**Final response by audit team** Reference has been incorporated in the PDD under section D.1.1 ☑
Clarification Request No. 1. Please clarify, why was there a delay in starting the CDM validation process when it was already decided to implement the project in April 2006, considering the CDM revenues.	A.1.3	The management Board of SNIL took a decision to pursue the project under with CDM benefits on 15/4/06. However the CDM process could be initiated only after receiving the project approval from CREDA (Chhattisgarh Renewable Energy Development Agency) on 07/11/06 (the CREDA approval letter is attached herewith). This has delayed the CDM process. **PP response** The CREDA Letter and the chronology indicating the key events associated with the project activity are attached.	CREDA letter needs to be submitted to DOE. A detailed chronology indicating the key events associated with the project activity should be submitted. **Final response by audit team** The CREDA letter and chronology related to the project activity has been submitted. ☑
Clarification Request No. 2. There is an inconsistency about the annual out put of the proposed project as per PDD (80.78 million units) and the DPR (95.04 million units). Revise the PDD accordingly.	A.2.3	The figure of 95.04 million units /year is the maximum capacity of power plant with 100 % PLF. However the project proponent is expecting to run the plant at 85 % PLF which is equivalent to 80.78 million units /year. This is clearly mentioned in the DPR and the same	1. Please ensure SI units throughout the PDD. 2. Please indicate the capacity of the WHR unit in the PDD. **Final response by audit team** The PDD has been revised ap-

		figure of 80.78 million units /year has been considered in the PDD. **PP response** S.I. Units have been used in PDD. The capacity of the WHR plant is indicated in the PDD. An explanation of is being provided to the DoE on the actual production capacity (4.5 MW) of the existing WHR plant.	propriately. In light of the same this issue is closed. ☑
Clarification Request No. 3. Please provide a training and maintenance procedure of the project activity.	A.4.2.9	Included in the Monitoring Plan at Annexure-4	It has been described in the PDD, Annex-4. This issue is now resolved. ☑
Clarification Request No. 4. Please provide the excel sheet of the grid emission factor calculation, which includes the list of power plants, energy generation and fuel consumption data i.e. used to calculate OM and BM factors.	B.4.1	**PP response** The PDD has been updated with the latest Grid emission calculation.	The same has been corrected and submitted. Hence the issue is resolved. ☑
Clarification Request No. 5. 1. The assumptions in the IRR calculations should be clearly referenced in the PDD and documentary evidence for the same should be provided. 2. The basis for taking lower rate for the captive power consumed should be provided. 3. The recent guidance by EB on IRR calculations should be followed properly. 4. Submit the evidence for IRR benchmark 12.25% used in the PDD.	B.5.18	1. The assumptions in the IRR calculation are already mentioned in the PDD and documentary evidence for the same have already been submitted to the DOE. 2. In the IRR calculations, the Captive Power Consumption has been taken at INR 3.70 (as per import tariff bill by CSEB) whereas; the Power Exported to the grid has been taken at INR 1.00 in accordance with the PPA with CSEB. Supporting documents to this effect have already been discussed and handed over to the DOE.	1. The same has been referenced in the revised PDD. Supportive for the assumptions taken to calculate IRR has been submitted. 2. The project activity is grid connected biomass power generation; hence the rate for captive consumption is taken from tariff bill by CSEB. Supportive for the same is provided. Further the rate of power exported to the grid is taken as per the power purchase agreement with CSEB. Copy of PPA has been submitted.

		3. The latest guidelines given by CDM – Executive Board on "Guidance on the Assessment of Investment Analysis (version 02.1)" have been followed properly while preparing the investment analysis for the project. 4. A certificate issued from Bank of Baroda dated 18.07.2008 has been submitted to DoE as evidence to the prevailing rate of interest at the time of Board resolution taken for the project implementation. Same has been described in the PDD. A detailed explanation on various assumptions considered in the investment analysis is being added in the PDD under Section B. 5. The supporting evidences in favour of the consideration of the escalation in Manpower Expense and the other relevant expenses are being submitted to the DoE and are mentioned in detail in the PDD. Also, a detailed explanation is provided to the PDD for not taking any escalation in the Tariff rate during investment analysis. The PDD is being revised accordingly.	3. Latest guidelines for the investment analysis have been used in the revised PDD. 4. Certificate for the IRR benchmark used in the PDD has been provided. **Further response by audit team** Please provide further justification for the increasing O&M inclusive of the manpower cost without any escalation in tariff. Also, provide further justification and references for the investment analysis and the PDD should be revised accordingly. **Final response by audit team** Further explanation and the indicated supporting evidences have been submitted. In light of the same this issue is closed. ☑
Clarification Request No. 6. The power distribution 75:25 (captive: grid) and the associated prices is not consistent within the PDD. The in-house requirement stated is 18 MW (12MW biomass + 4.5 MW WHR). The in-firm power supply is maximum 25% as per our understanding.	B.5.18	The power distribution of 75:25 (captive: grid) has been explained by a graphical representation of load curves of the captive power consumption as a separate excel sheet attached to this response. This graphic representation clearly explains that of the total power generated, 75% would be used in-	During batch process cycle time is 2h 30minutes with an interval of 30min. During this interval furnace does not draw any power. At this time only 75% power is consumed as per the load curve submitted. Rest of the power (25%) is being

		house whereas the remaining 25% will be exported to the grid.	exported to the grid. Hence the distribution of 75:25 is well understood. Hence the issue is closed. ☑
Clarification Request No. 7. Clarify how the joint metering data can be cross-checked with control room data. Include the required parameters in the monitoring plan.	B.7.1.1	Mentioned in the Monitoring Plan at Annexure-4.	It has been transparently described in the PDD annex-4. This issue is now resolved. ☑
Clarification Request No. 8. Project starting date mentioned in the section C.1 is not matching with document submitted by the project proponent. Clarify it. As well as also submit the supportive document for the lifetime of the project activity.	C.1.1	The start date of the project activity is 01/11/2007, when the negotiation for purchase of the Circulating Fluidized Bed Boiler was initiated with the manufacturer. It is mentioned in the final boiler purchase agreement dated 21/12/2006. Copy of purchase agreement attached herewith. The start date of the project activity is corrected in the PDD. **PP response** There is a typo error. The start date for project activity is 01/11/06 as mentioned in PDD. The relevant document to support the start date is attached.	In the PDD under section C.1.1, start date is mentioned as 01/11/06. Whereas in the response PP has mentioned 1/11/2007. Clarification is sought for the same and also provides the relevant document to support the start date. **Final response by audit team** The same has been corrected in the PDD under section C.1.1 ☑

Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
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Annex 2: Information Reference List

IRL No.	Document or Type of Information
1.	On-site interviews at the project site in Siltara, Raipur conducted on January 9-10, 2008 by the auditing team of TÜV SÜD: Validation team: Supratik Dutta — TÜV SÜD South Asia, India Raj Kumar Thakur — TUV SUD South Asia, India Interviewed persons: Mr. Amitabh Shome — Director (Technical), SNIL Mr. Virendra Goel — Managing Director, SNIL Mr. Rajkumar Agarwal — Chartered Accountant, SNIL
2.	Project Design Document for CDM project “Shree Nakoda Ispat Ltd 12 MW Biomass power generation project” Version 1 dated 15.11. 2007.
3.	AMS ID/Version 13 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”
4.	UNFCCC web-page www.unfccc.int
5.	Copy of Board Approval, dated 15.04.2006.
6.	Copy of DPR
7.	Copy of EIA
8.	Power Purchase agreement, dated 29.10.2007.
9.	Consent to establish, dated 18.11.2005.
10.	Issue Purchase order, dated 01.11.2006.
11.	NoC from CREDA to establish biomass power plant, dated 07.11.2006.
12.	Boiler Certificate from the supplier, Sichuan Chuanguo boiler Co. Ltd.
13.	Technical specification for 12MW steam turbine and generator, dated 16.07.2006.
14.	Time schedule
15.	Biomass assessment report
16.	Term Loan by Indian Overseas Bank, dated 03.11.2006.
17.	Term Loan by Bank of Baroda, dated 13.06.2006.
18.	Test report of biomass CV.
19.	Statement from bank stating BPLR, dated 18.07.2008.
20.	Copy of rice husk quotation from different suppliers.
21.	Stakeholder’s invitation advertisement, dated 28.04.2007.
22.	Sample of Invitation letter sent to stakeholders.
23.	Stakeholders attendance sheet, 10.05.2007.
24.	Stakeholder’s consultation questionnaire.
25.	Copy of email from SNIL to CDM consultant, dated 21.11.2006.

IRL No.	Document or Type of Information
26.	Copy of email from CDM consultant to SNIL, dated 27.11.2006.
27.	Copy of email (proposal) from CDM consultant to SNIL, dated 19.12.2006.
28.	Appointment of CDM consultant, dated 25.01.2007.
29.	Host Country Approval, dated 25.07.2008.
30.	Modalities of Communication, dated 16.06.2008.
31.	Revised PDD for CDM project “Shree Nakoda Ispat Ltd 12 MW Biomass power generation project” Version 6 dated 02.06. 2010
32.	Revised emission reduction calculation sheet, dated 09.10. 2009.
33.	IRR calculation sheets
34.	Justification provided by SNIL regarding 75% and 25% power distribution, dated 15.09.2009.
35.	Before the Appellate Tribunal for Electricity Appellate Jurisdiction, Appeal No. 20 of 2006, dated 7.09.2006.
36.	Spreadsheet for transportation leakage calculation
37.	Certificate from Bank of Baroda confirming the plant load factor, dated 18.09.2009
38.	Historical record of electricity imports by SNIL from the Chhattisgarh State Electricity Board (CSEB) for the years 2006-07, 2007-08 and 2008-09
39.	Power purchase agreement between CSEB and SNIL, dated 29.10.2007
40.	Sample CSEB bills and SNIL bills
41.	Sample water bills
42.	Appeal No. 20 of 2006 directed against the Tariff Order dated. 11.11.2005 passed by Chhattisgarh State Electricity Regulatory Commission (CSERC) (http://aptel.gov.in/judgements/order%20in%20Appeal%20No%2020%20of%202006.pdf)
43.	Profit & Loss account of the audited balance sheets, 2006-07, 2007-08, 2008-09
44.	CSERC Tariff orders, 2005-06, 2006-07, 2007-08 (http://www.cserc.gov.in/tariff_order.htm)
45.	Water bills and purchase invoices indicating water rate as 50 INR/Kiloliter
46.	Chartered Accountant (CA) certificate for the project cost, dated 01.06.2009
47.	Synchronization certificate from Chhattisgarh State Power Distribution Company Limited, dated 18.03.2009
48.	Actual Project Cost based on Invoices paid to various vendors
49.	Depreciation rates as per Income Tax Act
50.	Specific Fuel consumption calculation excel sheet
51.	Details of O&M and Admin expenses from March 2009-February 2010 (1st Year of Plant Operation)
52.	Details of Manpower expenses from March 2009-February 2010 (1st Year of Plant Operation)
53.	Petition No. 25 of 2009 passed by Chhattisgarh State Electricity Regulatory Commission (CSERC) dated 15.04.2010 (http://cserc.gov.in/pdf/25-2009%20final.pdf)
54.	Actual Power generation , Auxiliary consumption, Biomass consumption details from March 2009-February 2010(1st Year of Plant Operation)