

## Validation Protocol

This validation protocol is designed to ensure that the project meets the requirements for CDM projects that are detailed in paragraph 37 of the CDM modalities and procedures. Each requirement is covered in a separate table. The following requirements are discussed in this protocol:

| Requirement                         | Description  |  |
|-------------------------------------|--|--|
| Participation requirements          | The participation requirements as set out in Decision 17/CP.7 need to be satisfied   | Covered in table 1   |
| Baseline and monitoring methodology | The baseline and monitoring methodology complies with the requirements pertaining to a methodology previously approved by the Executive Board  | Baseline methodology is covered in table 2<br>Monitoring methodology is covered in table 4 |
| Additionality                       | The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity  | Covered in table 3   |
| Monitoring plan                     | Provisions for monitoring, verification and reporting are in accordance with relevant decisions of the COP/MOP   | Covered in table 5   |
| Environmental impacts               | Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party; | Covered in table 6   |
| Comments by local stakeholders      | Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated operational entity on how due account was taken of any comments has been received;  | Covered in Table 7   |
| Other requirements                  | The project activity conforms to all other requirements for CDM project activities in relevant decisions by the COP/MOP and the Executive Board.   | Covered in Table 8   |

Small sale projects and AR projects have specific requirements which are covered in Table 9-11

Further remarks on the use of this document:

- text in *italic blue* is meant as guidance for the assessor
- MoV = Means of Verification, DR= Document Review, I= Interview

This protocol should be adapted as required. For example, if the project is not a small scale project or an AR project, some tables can be deleted.

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

| REQUIREMENT   | MoV | Ref | Comment  | Draft finding | Concl |
|---|-----|-----|--|---------------|-------|
| 1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.         | DR  | PDD | No Annexure – I party is involved at this stage (Unilateral Project) but the project will ultimately help in Annex-I parties in achieving their emission reduction commitment through the sale of CERs.  | OK            | OK    |
| 1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily | DR  | PDD | A letter of approval needs to be provided by the Indian DNA (Ministry of Environment & Forests, Government of India) confirming that the project shall assist non-Annex-I Parties in achieving sustainable development and also confirming voluntary participation of the host country | CAR1          | OK    |
| 1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects   |     |     | India ratified the Kyoto protocol on 26 August 2002 and is allowed to participate ( <a href="http://unfccc.int/parties_and_observers/parties/items/2109.php">http://unfccc.int/parties_and_observers/parties/items/2109.php</a> )  | OK            | OK    |
| 1.4 The project results in reductions of GHG emissions or increases in  | DR  | PDD | Yes the project activity results in the reduction of   | OK            | OK    |

| REQUIREMENT  | MoV | Ref | Comment   | Draft finding | Concl |
|--|-----|-----|---|---------------|-------|
| sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario  |     |     | GHG emissions through utilising waste heat for generation of electricity  |               |       |
| 1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available                         | DR  | PDD | The project was hosted on the UNFCCC website from 03/11/2005 to 02/12/2005, no comments were received.  | OK            | OK    |
| 1.6 The project has correctly completed a Project Design Document, using the current version and exactly following the guidance  | DR  | PDD | <ul style="list-style-type: none"> <li>– The PDD is double spaced, should be single spaced</li> <li>– Section A.4.1.4, section and A.4.4 should each be restricted to one page</li> <li>– Section 4.4.1- CO<sub>2</sub>(should beCO<sub>2</sub>e)</li> <li>– Section B5 not addressed in accordance with the guidelines-Revise</li> <li>– Section E4 CO<sub>2</sub> should beCO<sub>2</sub>e</li> <li>– Table E6 on emission reduction calculations to be inserted</li> </ul> | NIR2          | OK    |
| 1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA   | DR  | PDD | No ODA Utilised   | OK            | OK    |
| 1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD? |     |     | n/a   | n/a           | n/a   |
| 1.9 Does the project meet the additional requirements detailed in:<br>Table 9 for SSC projects   |     |     | n/a   | n/a           | n/a   |

| REQUIREMENT  | MoV | Ref | Comment         | Draft finding | Concl |
|--|-----|-----|-----------------|---------------|-------|
| Table 10 for AR projects<br>Table 11 for AR SSC projects   |     |     |                 |               |       |
| 1.10 Does the PDD use accurate and reliable information that can be verified in an objective manner? |     |     | Pending CAR/NIR | Pending       | OK    |

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

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS  | Draft Concl | Final Concl |
|--|------|------|---|-------------|-------------|
| 2.1 Does the project meet all the applicability criteria listed in the methodology                 | DR   | PDD  | Yes the project meets all the applicability criteria                            | OK          | OK          |
| 2.2 Is the project boundary consistent with the approved methodology                               | DR   | PDD  | Yes the project boundary is consistent with the approved methodology            | OK          | OK          |
| 2.3 Are the baseline emissions determined in accordance with the methodology described             | DR   | PDD  | The calculations need to be revised in accordance with the revision in ACM0002  | CAR3        | OK          |
| 2.4 Are the project emissions determined in accordance with the methodology described              | DR   |      | No project emissions occur  | OK          | OK          |
| 2.5 Is the leakage of the project activity determined in accordance with the methodology described | DR   |      | No leakage is anticipated in the project  | OK          | OK          |
| 2.6 Are the emission reductions determined in accordance with the methodology described            | DR   |      | The calculations need to be revised in accordance with the revisions in ACM0002 | CAR4        | OK          |

**Table 3 Additionality (Ref: PDD Section B3 and AM)**

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS  | Draft Concl | Final Concl |
|--|------|------|---|-------------|-------------|
| 3.1 Does the PDD follow all the steps required in the methodology to determine the additionality | DR   | PDD  | Yes the PDD follows all the steps required to demonstrate additionality | OK          | OK          |
| 3.2 Is the discussion on the additionality clear and have all assumptions been supported by      | DR   | PDD  | Proof of starting date of the project activity                          | CAR5        | OK          |

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS  | Draft<br>Concl   | Final<br>Concl |
|--|------|------|---|------------------|----------------|
| transparent and documented evidence  |      |      | Proof of serious consideration of CDM<br>Regulatory Barriers<br>Please provide information on:<br>Annual charge for meeting contract demand of 7000KVA (2002, 03, 04, 05)<br>Annual electricity consumption(2002, 03, 04, 05) | CAR6<br><br>CAR7 | OK<br><br>OK   |
| 3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios? | DR   | PDD  | Yes, the discussion is clear and the selected baseline represents the most likely scenario  | OK               | OK             |
| 3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario                |      |      | Pending CAR   | Pending          |                |

**Table 4 Monitoring methodology (PDD Section D and AM)**

| CHECKLIST QUESTION  | Ref. | MoV* | COMMENTS   | Draft<br>Concl | Final<br>Concl |
|---|------|------|--|----------------|----------------|
| 4.1 Does the project meet all the applicability criteria listed in the monitoring methodology                   | PDD  | DR   | Yes, the applicability criteria are met  | OK             | OK             |
| 4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology | PDD  | DR   | The baseline emission monitoring methodology needs to incorporate changes in the ACM0002   | CAR8           | OK             |
| 4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology  | PDD  | DR   | There are no project emissions occurring in the project because there is no provision of auxiliary fuel firing for generation start up, in emergencies or to provide additional heat gain before entering the WHRB's | OK             | OK             |
| 4.4 Does the PDD provide for the monitoring of the leakage as   | PDD  | DR   | There is no leakage associated with the  | OK             | OK             |

| CHECKLIST QUESTION  | Ref. | MoV* | COMMENTS   | Draft<br>Concl | Final<br>Concl |
|---|------|------|--|----------------|----------------|
| required in the monitoring methodology  |      |      | project activity   |                |                |
| 4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology | PDD  | DR   | Quality Control(QC) and Quality Assurance procedures are satisfactory. These are ensured through regular checking and calibration of the meters and standard testing equipment | OK             | OK             |

**Table 5 Monitoring plan (PDD Annex 4)**

| CHECKLIST QUESTION  | Ref. | MoV* | COMMENTS  | Draft<br>Concl           | Final<br>Concl |
|---|------|------|---|--------------------------|----------------|
| 5.1 Monitoring of Sustainable Development Indicators/<br>Environmental Impacts  |      |      | There are no specific requirement for monitoring of SD indicators and no environmental impacts were considered significant by PPs or Party, therefore there are no SD / Environmental monitoring requirements | To be confirmed<br>(TBC) | OK             |
| 5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts? |      |      | n/a   |                          |                |
| 5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?                              |      |      | n/a   |                          |                |
| 5.1.3 Will it be possible to monitor the specified sustainable development indicators?  |      |      | n/a   |                          |                |
| 5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?                               |      |      | <ul style="list-style-type: none"> <li>No national priorities defined</li> <li>Pending CAR1</li> </ul>  | TBC                      | OK             |

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS  | Draft<br>Concl | Final<br>Concl |
|--|------|------|---|----------------|----------------|
| 5.2 Project Management Planning  |      |      |   |                |                |
| 5.2.1 Is the authority and responsibility of project management clearly described?   | PDD  | DR   | No, the authority and responsibility needs to be defined clearly  | NIR9           | OK             |
| 5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?   |      |      | Yes, The Plant Manager and shift in-charge would monitor the data logging and would generate daily, monthly reports.      | OK             | OK             |
| 5.2.3 Are procedures identified for training of monitoring personnel?  | PDD  | DR   | No, the procedures need to be defined clearly   | NIR10          | OK             |
| 5.2.4 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?   | PDD  | DR   | The scope of the project does not requires emergency preparedness measures for unintended emissions                       | OK             | OK             |
| 5.2.5 Are procedures identified for calibration of monitoring equipment?   | PDD  | DR   | Yes, all measuring instruments are required to be calibrated by third party/government agency once in a year.             | OK             | OK             |
| 5.2.6 Are procedures identified for maintenance of monitoring equipment and installations?   | PDD  | DR   | Yes, The Standard Testing Laboratory verifies the reliability of the meter reading  | OK             | OK             |
| 5.2.7 Are procedures identified for monitoring, measurements and reporting?  | PDD  | DR   | Yes, an online monitoring would be in place to monitor and record the net electricity generated                           | OK             | OK             |
| 5.2.8 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation) | PDD  | DR   | The day to day handling is ensured through online in control registration through a microprocessor                        | OK             | OK             |
| 5.2.9 Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?   | PDD  | DR   | Yes hourly data logging is ensured in addition to the software memory. Daily, weekly and monthly reports will be prepared | OK             | OK             |

| CHECKLIST QUESTION  | Ref. | MoV* | COMMENTS   | Draft<br>Concl | Final<br>Concl |
|---|------|------|--|----------------|----------------|
|   |      |      | stating generation.  |                |                |
| 5.2.10 Are procedures identified for review of reported results/data?   | PDD  | DR   | Yes, CSEB also monitors and certifies the power wheeled to the grid.   | OK             | OK             |
| 5.2.11 Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?        | PDD  | DR   | Not applicable as the project does not have a direct control on the baseline   | OK             | OK             |
| 5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally? |      |      | Not applicable as the project does not have a direct control on the baseline   | OK             | OK             |
| 5.2.13 Are procedures identified for corrective actions in order to provide for more accurate future monitoring and reporting?        |      |      | Although procedures identified reflect transparent monitoring practice but corrective actions for future monitoring would help | NIR11          | OK             |

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

| CHECKLIST QUESTION  | Ref. | MoV* | COMMENTS  | Draft<br>Concl | Final<br>Concl |
|---|------|------|---|----------------|----------------|
| 6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?                   |      |      | Yes, project returns benefit local, regional and global environment               | OK             | OK             |
| 6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved? |      |      | To be confirmed   | Pending        | OK             |
| 6.3 Will the project create any adverse environmental effects?  |      |      | Yes, negative impacts envisaged during construction phase are small and temporary | OK             | OK             |
| 6.4 Are transboundary environmental impacts considered in the analysis?   |      |      | Not envisaged   | OK             | OK             |
| 6.5 Have identified environmental impacts been addressed in the project design?   |      |      | Yes, the impacts have been addressed  | OK             | OK             |
| 6.6 Does the project comply with environmental legislation in the host country?   |      |      | Yes, the project comply with the environmental legislation in India               | OK             | OK             |

**Table 7 Comments by local stakeholders (Ref PDD Section G)**

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS   | Draft<br>Concl  | Final<br>Concl |
|--|------|------|--|-----------------|----------------|
| 7.1 Have relevant stakeholders been consulted?   | PDD  | DR   | Yes, stakeholders have been consulted at all levels<br><br>List of stakeholders (names/addresses) to be provided | OK              | OK             |
| 7.2 Have appropriate media been used to invite comments by local stakeholders?   | PDD  | DR   | Yes, the stakeholders were contacted through meetings, sending applications                                      | OK              | OK             |
| 7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws? | PDD  | DR   | No stakeholders consultation is not a mandatory requirement as per the Indian law                                | To be confirmed | OK             |
| 7.4 Is a summary of the stakeholder comments received provided?  | PDD  | DR   | Yes, the comments are positive   | OK              | OK             |
| 7.5 Has due account been taken of any stakeholder comments received?   | PDD  | DR   | No adverse comments received   | OK              | OK             |

**Table 8 Other requirements**

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS   | Draft<br>Concl | Final<br>Concl |
|--|------|------|--|----------------|----------------|
| <b>8.1 Project Design Document</b>   |      |      |  |                |                |
| 8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.             | PDD  | DR   | Yes, the template has been applied correctly                   | OK             | OK             |
| 8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified | PDD  | DR   | Yes, the specific requirements under each header are addressed | OK             | OK             |

| CHECKLIST QUESTION   | Ref. | MoV* | COMMENTS   | Draft<br>Concl | Final<br>Concl |
|--|------|------|--|----------------|----------------|
| <b>8.2 Technology to be employed</b>   |      |      |  |                |                |
| 8.2.1 Does the project design engineering reflect current good practices?  | PDD  | DR   | Yes, the projects reflects current good practice through generation of power from waste heat from process flue gas | OK             | OK             |
| 8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country? |      |      | Yes, the technology used reflects better performance than other projects in a similar setup                        | OK             | OK             |
| 8.3 Is the project technology likely to be substituted by other or more efficient technologies within the project period?  |      |      | Probably not   | OK             | OK             |
| 8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?  |      |      | Yes, Pending closure of CAR (5.2.3 above)  | OK             | OK             |
| <b>8.3 Duration of the Project/<br/>Crediting Period</b>   |      |      |  |                |                |
| 8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?   | PDD  | DR   | Yes, the starting date of the project is September 2003 and the starting date is April 2005, which is reasonable   | OK             | OK             |
| 8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?                    | PDD  | DR   | Yes, the crediting time is 10 years(fixed), which is reasonable  | OK             | OK             |
| 8.3.3 Does the project's operational lifetime exceed the crediting period  | PDD  | DR   | Yes  | OK             | OK             |

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