

RESPONSE TO REQUESTS FOR REVIEW

Bureau Veritas Certification had performed the validation of the "Installation of Wind power project by Kilburn Chemicals Ltd". (Hereafter called "the project") located at Ukkirankottai and Sundankurichi villages of Tirunelveli District in Tamil nadu, India.

The request for registration was made in August 2008 (Reference number: 1690). Subsequently, there have been 3 (three) requests for review, which were received on 27/11/2008. Since all the requests are identical, we are providing common responses to the issues that have been raised.

Our response to the request for review points have referred to various annexes which are attached by Project Participant along-with their response.

We thank the CDM executive board and the secretariat for giving us the opportunity to clarify about our considerations in validating the said project.

Question 1

The DOE is requested to further clarify that prior consideration of benefits from CDM has been made according to EB 41, Annex 45 paragraphs 5 and 6. In particular, the DOE shall clarify how the project can be commissioned within 1.5 month after signing of the turbine purchase agreement.

DOE Response

We believe the reference above should be read as EB41, Annex 46 paragraphs 5 and 6. As per para 5.a of Annex 46, EB 41, the project participant must indicate awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this would include, inter alia, minutes and/or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a CDM project activity.

In the minutes of the meeting of the Board of Directors of M/s. Kilburn Chemicals Limited held on 25/07/2005 (Annexure 1 of PP response) wherein the decision to invest in windmills had taken place, the project participant has discussed about the CDM benefits and its impact on the returns from the project. This project activity of M/s. Kilburn Chemicals Limited started on 01/08/2005 with the placing of purchase orders for the first Suzlon make 1250 kW WTG. This is verified through the purchase order placed by Kilburn Chemicals Limited on Suzlon Energy Limited (Annexure 2 of PP response). Thus it is evident that project participant was aware of the CDM prior to the project

activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the said windmill project.

As per the paragraph 5.b. of Annex 46, EB 41, the project participant must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this should include, inter alia, contracts with consultants for CDM/PDD/ methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat;

The detailed chronology of events from the date of decision making till validation is submitted in the project participant's response. From the purchase order dated 01/08/2005 (Annexure 2 of PP response) in page 5 of 7 it could be seen that under general terms of the order, the project participant has made it clear that the supplier M/s. Suzlon Energy will have to make necessary arrangements for passing on the CDM benefits from the date of commissioning through Suzlon's associate company i.e., M/s. Synergy Global and that Suzlon has to facilitate for MOU between M/s. Synergy Global and the project participant M/s. Kilburn Chemicals Limited. Thus the validation team is convinced of the intention of the project participant to avail the CDM status in parallel to the implementation of the project.

The chronology of events as given by the project participant indicates continued real actions by project participant to secure CDM status for the project activity. Notable delay is evident after appointment of the consultant in February 2006. Project participant has provided with evidence an explanation for this delay from part of the first appointed consultant M/s. Synergy Global. Refer the minutes of the meeting referred in the chronology of events. Hence the project participant had to shift to the second consultant, thus causing delay in validation.

The validation team verified the evidences for all the actions listed in the chronology by the project participant to note that the project participant has been continuously following and taking actions to secure the CDM status and hence is convinced of the CDM consideration for the project activity.

As evident from the purchase order dated 01/08/2005 (Annexure 2 of PP response), it is to be noted that the project participant has specified that the delivery schedule be before 20th September 2005 in the purchase order itself. Suzlon Energy Limited has accepted the order based on this delivery schedule and confirmed to Kilburn Chemicals Limited that the foundation is already completed, the materials are available at site and the proposed commissioning date of the WTG is 25th to 28th September 2005 (Annexure 4 of PP response). Further, the constant follow-up correspondences the project participant had with the supplier ie., Suzlon Energy Limited (Annexure 5 to Annexure 11 of PP response) also confirms that the various stages since placing of the order and the windmill was commissioned on 15th September 2005 ie., in 45 days and within the stipulated timeline as per the contract. Suzlon Energy Limited further confirmed (Annexure 12 of PP response) that this was possible due to the availability of project related resources and materials at site. Thus the project participant was able to commission within 1.5 month after signing of the turbine purchase agreement.

Question 2

The DOE is requested to further clarify why the sensitivity analysis was carried out for the generated power only, but not for other key input values.

DOE Response

As per the guidance on investment analysis, only variables, including the initial investment cost, that constitute more than 20% of either total project costs or total project revenues should be subjected to reasonable variation (all parameters varied need not necessarily be subjected to both negative and positive variations of the same magnitude), and the results of this variation should be presented in the PDD and be reproducible in the associated spreadsheets.

Since this is a windmill project, the only source of revenue is from the sale to grid / electricity bill adjustment by wheeling of power to PP's manufacturing unit. The revenue is dependent on the power tariff and power generation as presented below:

$$\text{Revenue} = \text{power tariff} * \text{power generation.}$$

As it is evident, the variables are the power generation and the tariff only. The variation of power cost had already been built in the financials as per the PPA. A $\pm 10\%$ variation in either of these variables (tariff or PLF) would result in the same change in the revenue and in turn affect the IRR to the same extent. Hence the choice of PLF as

variable for the sensitivity analysis is justified and even with a + 10% variation in PLF, the IRR was only 14.84% and has not crossed the benchmark value of 14.88%.

The other parameters, that constitute more than 20% of either total project costs or total project revenues could be the capital cost and O&M cost. As far as this project of Kilburn Chemicals Limited is concerned, the O & M charges were INR 21.32 lacs, which is just 2% of total project cost and hence the project participant for sensitivity analysis did not consider the same. The summary of results of sensitivity analysis is presented below. It shall be noted that even with a decrease of 10% in the capital cost, the IRR does not cross the benchmark.

Key Parameters	Variations	IRR without CDM
Generation	-10%	11.22%
	-5%	12.16%
	0%	13.08%
	+5%	13.97%
	+10%	14.84%
Capital Cost	-10%	14.76%
	-5%	13.89%
	0%	13.08%

Thus the validation team accepted the sensitivity analysis presented by the PP and considered the project activity as additional, as demonstrated by the investment analysis.

Question 3

The DOE is requested to further clarify how the prevailing practice barrier is validated and confirmed.

DOE Response

As stated in the validation report, the validation team agreed that various barriers discussed in the PDD are present. However, the validation team was not convinced that these barriers are prohibitive, since this has not prevented further investments on windmills in the state of Tamil Nadu. This is very clearly stated under section 3.2 of the validation report and that the project scenario is considered additional in comparison to the baseline scenario only based on the investment analysis presented by the PDD. In line with the opinion of the validation team, the project participant has now chosen to remove the discussions in PDD regarding prevailing practice barrier.

Question 4

The DOE shall explain why the ex-ante grid baseline emission factor (0.92864 tCO₂/MWh, 0.75 OM: 0.25 BM) is different from the one in the PDD submitted for validation, noting that the factor should be based on the latest available data at the date of validation

DOE Response

The project "Installation of Wind power project by Kilburn Chemicals Ltd" started in the year 2005 and has used AMS ID Version 12, which is the applicable and approved baseline and monitoring methodology at the time of PDD submission. The said methodology AMS ID Version 12 is in conjunction with ACM0002. AMS ID Version 12 clearly says the combined margin calculations are to be calculated as per the procedures in the approved methodology ACM 0002. The project participant chose the ex ante approach for calculation of emission factors.

As per ACM 0002 version 6, under Step 1 to calculate the operating margin emission factors it is said that for ex-ante calculations, the data available at the time of PDD submission is to be used.

The Central Electricity Authority (CEA) CO₂ baseline database published from time to time is in line with the latest versions of ACM 0002. As per this the CEA CO₂ baseline database as available during the time of PDD submission for web hosting was referred for the ex ante calculation of emission factors. The project participant while submitting the PDD for web hosting calculated the emission factor as per version 2 of CEA data base without considering the 0.75 OM:0.25 BM as applicable to windmills. The value of emission factor was worked out with equal weightages, as 0.85934 kg of CO₂ / kWh. This was also raised as a CAR during validation and is addressed in E 3.6 of Table 2 and in 1.3.8 of Table 3, Appendix A to validation report. Considering the 0.75 OM:0.25 BM, as per version 2 of CEA database itself the correct emission factor will workout to 0.93 kg of CO₂ / kWh for the southern grid.

However the CEA database has under gone revision during June 2007 and subsequently in December 2007. During the validation process, the PDD has under gone corrections to ensure that the details as required are transparently discussed and conservative estimates are presented in the PDD. During this course of time the version 3 of the CEA database was made public on 15/12/2007. Since the latest version of the CEA data base was available prior to resubmission of the PDD and the ex ante emission factor calculated is to be constantly applied through out the crediting period (for the



chosen period 10 years further to from the date of registration), to ensure the conservativeness of the calculated emission factor, the values were checked against the latest published CEA data base. It was seen that for the southern grid, the emission factor based on the new version would lead to marginal decrease in estimated emission reductions. The final version 04 of the PDD was re submitted on 08/08/2008 by the project participant as per the latest version of the CEA data available, considering the 0.75 OM:0.25 BM, thus arriving at an emission factor of 0.92864 kg of CO₂ / kWh. The project participant discussed this in the description and development of base line under section B.4 of the revised PDD.

Though the difference is very minor, the validation team confirmed that the use of the latest version of CEA data base values will lead to conservative estimate of the emission reductions and hence the same is accepted during validation.

We have verified all the evidences provided by the PP and confirm that they are reliable and in accordance with the requirements of CDM Executive Board.

We hope that the explanation provided above is satisfactory and request you to kindly register the project.

Thanking you,
On behalf of Bureau Veritas Certification Holding SAS

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