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Thursday, 27th September 2007

The Secretariat,
CDM Executive Board,
United Nations Framework Convention on Climate Change (UNFCCC),
Bonn, Germany.

Dear Sir

Sub: Project under 'Request for Review' – "2.76 MW Grid Connected Renewable Energy Project in Rajasthan by Kalani Industries" (Ref. No: 1132) – Clarifications on Issues Associated with Validation requirements – sent reg.

With reference to the communication received from the CDM Executive Board for "2.76 MW Grid Connected Renewable Energy Project in Rajasthan by Kalani Industries" (Ref. No: 1132), we, herewith furnish our response for your kind review.

The issues raised in the 'Request for Review' and our clarifications are as follows:

1. As the barriers listed in the PDD relate to the economic feasibility of the project activity, it should be demonstrated that the project activity was not financially attractive given the financial assumptions made at the time of the decision to proceed with the project activity, given the fact that all the turbines of the project were already commissioned by the end of May 2001 and in business operation until now without stopping for over 6 years, the PP did not provide credible evidence to show the project is taking risk at stopping business operation without support from CDM.

Since the proposed CDM project activity is a small scale with only 2.76 MW, we, the project promoters, opted to prove additionality through Prevailing practice barriers, Regulatory barriers, Low PLF etc as per the modalities & procedures of small scale projects. Hence we have not furnished the Investment Analysis to show the economic feasibility of the project even though the same was done during project planning stage itself.

The Financial Analysis done for the project activity during the project planning stage and the assumptions to calculate the same is herewith enclosed as Annex 1. The Equity IRR without

CDM benefit is 12.80 % which is below the Benchmark return on equity of 16%¹. The IRR is increasing to 13.85 % by considering the CDM benefit but still below the benchmark return on equity. The above fact clearly shows that the project promoters have taken risk in investing in a wind project.

The above IRR was calculated based on the Generation Guarantee provided by the O&M supplier, Enercon (India) Limited which is 5.6 Lakhs kWh per annum per WTG. All the 12 turbines got commissioned in 2001. The actual average annual generation from the total project (12 turbines) has been approximately 50.8 Lakhs kWh as against the expected 67.2 Lakhs kWh given from the generation guarantee. Clearly, the reduced generation obtained over the years has had a significant impact on the income stream of the project and CDM revenue may help to offset these losses to a considerable extent.

- 2. Further evidence is required regarding the difficulty in obtaining finance, in particular it should be validated that the loan could not be obtained without the CDM.**

The PDD doesn't say about difficulty in obtaining finance particularly loans for the project activity without CDM benefits. The total cost of the project is Rs. 160.192 millions. Out of this the Equity to Debt ratio was 35:65. Initially, the loan to an extent of Rs. 101.55 millions was obtained from Indian Renewable Energy Development Agency Limited (IREDA), a financial arm of Ministry of New and Renewable Energy, Govt. of India. Later the State Bank of Indore, Khelprashal Branch, Indore has settled the entire loan taken from IREDA. The loan for the project activity was obtained irrespective of the CDM benefits. A copy of the loan document was being submitted to the DOE.

- 3. While utilizing investment barrier to demonstrate additionality, the PDD did not provide financial investment analysis, showing to which extent the financial performance indicator, such as IRR, etc. is lower than the required benchmark value. And also the PP did not show how the additional cash flows from sale of CERs could make the project commercially viable and then feasible.**

According to Attachment A to Appendix B, Version 06, 30th September 2005, Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, project participants shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the barriers i.e. Investment Barrier, Technological Barrier, Barrier due to prevailing practice, Other Barriers etc.

¹ Page No: 122, Section 6.20, Order in the matter of Determination of Terms and Conditions of Tariff against Petition No: 67/2003, Central Electricity Regulatory Commission, Govt. of India.
<http://cercind.gov.in/21012004/tandctariff.pdf>

The project faces Regulatory Barriers, Prevailing practice barriers, Low PLF etc. and the project proponent has opted to prove additonality using the same. Also, since the total capacity of the project is only 2.76 MW the project proponent has not included the financial analysis in the PDD.

However the Financial Analysis, Sensitivity Analysis by considering both without and with CDM benefits has been done which is furnished in the table below. The same is being furnished in the PDD now.

1.	Normal Case with Generation Guarantee	12.80	13.85
2.	Increase in Generation by 5 %	14.39	15.23
3.	Increase in Generation by 10 %	15.96	16.62

4. As version 10 of the methodology AMS-LD is used corrections in the PDD, section B.6.1 Explanation of methodological choices, should be made. Further, the DOE should confirm that version 10 of the methodology AMS-LD has been correctly applied and validated.

The applicable methodology for the project activity is AMS I.D. – Grid connected renewable electricity generation, Version 10, Scope 1, dated 23rd December 2006. The baseline is the kWh produced by the renewable generating unit multiplied by an emission coefficient (measured in kg CO₂e/kWh) calculated in a transparent and conservative manner as:

- (a) A combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in the approved methodology ACM0002. Any of the four procedures to calculate the operating margin can be chosen, but the restrictions to use the Simple OM and the Average OM calculations must be considered

OR

- (b) The weighted average emissions (in kg CO₂e/kWh) of the current generation mix. The data of the year in which project generation occurs must be used.

As the methodology AMS I.D permits to use any one of the above approaches, the project proponent, has considered Combined Margin emission factor, for determining the emission reductions. The baseline emission factor has been considered from the “CO₂ Baseline Database”, Version 1.1, dated 21st December 2006 published by Central Electricity Authority (CEA), Govt. of India².

² CO₂ Baseline Database, <http://www.cea.nic.in/planning/c%20and%20e/Government%20of%20India%20website.htm>

The section B.6.1., Explanation of Methodological Choices of PDD is being redrafted and proper explanation is furnished in the Version 4 of PDD.

- 5. The PDD indicates electricity generation of 6,000 MWh/annum, however the emission reduction calculations are based on 5,476 MWh/annum. This should be clarified.**

The total capacity of the project is 2.76 MW. The electricity generation of 6,000 MWh /annum was estimated by considering 25% PLF which was the maximum in the region of Jaisalmer, Rajasthan. The same is mentioned in section B.6.2., B.6.3., B.7. of the PDD. The CER was calculated based on the actual data of the previous years i.e. from 2001 to 2006. However there are some errors in calculating the Net Generation of previous years.

Now, the CER is recalculated by using the Generation Guarantee and being furnished in the PDD, Version 4. Now the Certified Emission Reduction (CER) from the project activity is 5868 tCO₂eq. per annum.

We have furnished all the facts in a transparent manner and hope that the explanation provided above is satisfactory and acceptable.

We kindly request you to register the project.

Thanking you,

Yours truly,

For Kalani Industries Limited


RAWAN JAIN
(DIRECTOR)

Annexure

1. Financial Analysis and Sensitivity Analysis done for the project activity with and without CDM benefit.
2. Balance Sheet for the year 2001-02
3. Balance Sheet for the year 2002-03
4. Balance Sheet for the year 2003-04
5. Term Loan Letter from 'Indian Renewable Energy Development Agency (IREDA).
6. Operation & Maintenance Agreement done with Enercon (India) Limited.
7. Power Purchase Agreement (PPA) done with Rajasthan Rajya Vidyut Prasaran Nigam Limited and Jodhpur Vidyut Vitran Nigam Limited.
8. Memorandum of Understanding (MoU) done with Enercon (India) Limited dated 27th February 2001.
9. Insurance Letter obtained from IFFCO-Tokio General Insurance Co. Limited.
10. Revised Project Design Document (PDD), Version 4.
11. Certification from Statutory Auditor of the M/s. Kalani Industries Limited regarding the financials of the project.
12. Revised Certified Emission Reduction (CER) calculation sheet for the project activity.

