

Mr. Hans Jurgen Stehr Chair, CDM Executive Board **UNFCCC Secretariat** CDMinfo@unfccc.int

September 30th 2007

Request for review of the request for registration for the CDM project activity "Bundled wind energy Re: projects (2004 policy) in Rajasthan" (UNFCCC No. 1166)

Dear Mr. Stehr

SGS has been informed that the request for registration for the CDM project activity "Bundled wind energy projects (2004 policy) in Rajasthan" (UN1166) is under consideration for review because three requests for review have been received from members of the Board.

The requests for review are based on the same reason outlined below. SGS would like to provide an initial response to the issues raised by the request for review:

Request 1, 2 and 3:

- 1. The additionality of the project should be demonstrated using version 3 of the additionality tool.
- Further validation of the appropriateness of the benchmark used is required.
- Justification and validation of the PLF is required in the context of this specific project activity.
- 4. The memorandum of understanding dated 01/07/05; prior to the start date 24/11/05, was not validated by the DOE.

SGS Response to the Comments:

1. DoE would like to through light on the chronology of the Project activities CDM cycle.

Sr.	Date	Description
No.		
1	21 st Nov. 2006	PDD for the project activity was made public on UNFCCC website. PDD uses most recent version of methodology ACM0002 version 6 with the applicable tool for the demonstration and assessment of additionality version 2
2	15 th Dec. 2006	EB 28 (para 20) decided to consider the revised tool for the demonstration and assessment of additionality in the next meeting.
3	20 th Dec. 2006	Period for submission of Public comments was over.



Sr.	Date	Description
No.		
4	16 th Feb. 2007	EB 29 (para 35) agreed to the revision of the tool for the demonstration and assessment of additionality.
5	13 th June 2007	Project activity was submitted for Request for Registration (RfR) to UNFCCC.
6	31 st July 2007	Project activity was published on UNFCCC website under RfR
7	17 th Sept. 2007	CDM-EB informed DoE that project activity was under review.

As per Annex 2 to the EB30 report: "The revision of an approved methodology or tool referred to in a methodology shall not affect (i) registered CDM project activities during their crediting period; and (ii) project activities that have been published for public comments for validation using the previously approved methodology or tool, so long as the project activity is submitted for registration within 8 months of the date when the revision became effective."

Version 3.0 of the additionality tool was made public on 16th February 2007 and the Project Activity was published for public comments for validation prior to the Version 3.0 of the additionality tool and submitted for RfR before end of the grace period of eight months as mentioned above.

In light of the above, we understand that additionality tool version 2.0 is applicable to the Project Activity. We would of course be guided by the Executive Board in this regard. The same was mentioned in the PDD attached as Annex 1 and validated in the Validation report attached as Annex 2 herewith.

2. The relevant benchmark (post tax equity returns) has been derived from the benchmark that has been long used in the power generation sector, first set by Government of India policy notification (1991) and later, when the Central Electricity Regulatory Commission and State Electricity Regulatory Commission (CERC) (and in some instances, the state government policy notification) took over the role of tariff setting (mandated by the Electricity Act 2003), by their respective tariff orders/regulations/notifications. Post tax equity return has long been an established benchmark in the Indian power sector (electricity generation), whether it is for conventional fossil fuel fired power generation, hydro power generation or non-conventional/renewable power generation. We provide below an overview of the regulatory regime that govern the tariff determination for electricity sector investments in India.

In India, activities in the electricity sector such as generation, distribution, transmission and trading of power come under the purview of a comprehensive legislation called the Electricity Act 2003. As per the Electricity Act, the power to determine the tariff relating to generation, transmission and distribution of electricity is vested with the Electricity Regulatory Commissions. Some of the provisions laid down by the Electricity Act for tariff determination are reproduced below:

The Appropriate Commission¹ shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

• the principles and methodologies specified by the Central Commission² for determination of the tariff applicable to generating companies and transmission licensees:

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¹ State Electricity Regulatory Commission

² Central Electricity Regulatory Commission



- the generation, transmission, distribution and supply of electricity are conducted on commercial principles;
- the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
- safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner:
- the principles rewarding efficiency in performance;

The Central Electricity Regulatory Commission, Terms and Conditions of Tariff, Regulations 2004 dated 26 March 2004 set out the principles of tariff setting for generation projects. The principles allow full cost recovery plus the required return on equity (denominated in post tax equity return) for the power generators.

There are some variances in the approach followed by a particular regulatory commission as to what should be the level of the appropriate post tax equity return should be, as the regulatory commission attempts to balance the interests of the consumers (lower tariff) and the interests of the generators. But there is uniformity in selecting the benchmark as post tax equity return by all the state electricity regulatory commissions and the Central Electricity Regulatory Commission. Hence project proponent has selected the benchmark of post tax equity IRR of 16% as mentioned in the CERC order. CERC order is attached herewith as Annex 3.

Further, while setting the generation tariffs for wind power projects, a state electricity regulatory commission goes through a transparent and detailed process for determining each of the parameters that impact the tariff and obtains relevant data in relation to each parameter from the various stakeholders. The regulatory commission goes through this extensive public process and using the various cost parameters, the key operating parameters and the required rate of return (post tax equity return), it establishes the tariff for wind energy generation by aggregating the costs (including required rate of returns) and dividing by the expected generation from the wind projects.

As mentioned above, the regulatory commission also carries out its mandate as striking a balance between the consumers' interests and generator's interests. Clearly, the regulatory commission cannot allow any generator to make excess profits at the expense of the consumers and as the tariff is set *ex ante* based on various parameters, the parameters themselves are chosen on a conservative basis (lower benchmark rate of return for equity, higher benchmark for plant load factor/expected generation, etc.) so as to lead to a conservative per unit generation tariff.

The option III - benchmark analysis tool allows for equity returns as the appropriate benchmark. To quote from the text of version 2 "Identify the relevant benchmark value, such as the required rate of return (RRR) on equity. The benchmark is to represent standard returns in the market, considering the specific risk of the project type, but not linked to the subjective profitability expectation or risk profile of a particular project developer." This fits in well with the choice of equity rate of return that was chosen for this project, based on what the various electricity regulatory commissions' orders. We believe that since the regulatory commission/government notifications provide a very sound, rigorous and transparent basis for the benchmark returns and this has been in use in India for a very long time, this may be accepted as the appropriate benchmark for the project activity.

The state regulatory commissions are mandated by the Electricity Act 2003 to determine tariff in a manner that assumes commercial principles, encourages competition, efficiency and economical usage of resources, ensures reasonable recovery of cost of generation, rewards efficiency in performance and safeguarding the interests of the consumers. The Electricity Act also requires that tariff should be determined in a transparent manner that requires the regulatory commission to consider the views and opinions of the public in determining the appropriate tariff.



3. The project activity involves generation and sale of the electricity to the state utility, therefore in accordance with the Electricity Act, the tariff for the project is determined by the Rajasthan Electricity Regulatory Commission (RERC). RERC Order for determination of tariff from wind generation sources has been based on extensive consultation, obtaining information from various stakeholders (including wind farm developers, government agencies, utilities and other stakeholders). The RERC considered the PLF for the projects to be set up based on the data made available from various sources, which was elaborately discussed during the public hearing process conducted by RERC. RERC in its Order noted that the maximum PLF achieved in Rajasthan was 23.97% and that a 22% PLF for Jaisalmer, Jodhpur and Barmer districts should be considered as reasonable, based on data available with RERC³. The RERC order is attached as Annex 4 herewith.

The Government of Rajasthan ("GoR") had come out of policies in 2003, 2004 and 2006 for promotion of non conventional energy sources (including wind energy) in the state. The Rajasthan Renewable Energy Corporation (RREC, a state government agency) while prescribing the tariff for NES power plants in GoR policy of April 2003, October 2004 and February 2006 considered that a PLF of 22.37% would be appropriate for wind projects in Rajasthan, based on the data available with RREC.

The project activity is located at Kita Village in Jaisalmer district of Rajasthan. For carrying out the investment analysis, the PLF has been considered as 22% (same as that considered by RREC/Government of Rajasthan and RERC). A sensitivity analysis of the project's IRR is also provided in the PDD considering a PLF of 23.97%, which is mentioned by RERC in their order attached as Annex 4. Even at this PLF, the post-tax equity return is below the benchmark considered for the project activity.

4. Project proponent (Enercon India Ltd) entered into a MoU with an investor on 01/07/05 for selling emission reduction generated from its wind power project in the state of Karnataka and Rajasthan. A copy of the same was checked to the DOE at the time of Validation and was found satisfactory. The same has been mentioned in the revised validation report attached as Annex 2 herewith. A copy of MOU is attached as Annex 5 with the response.

We hope that above explanation would have cleared the comments raised by the CDM-EB.

Vikrant Badve (+91 9967005290) will be the contact person for the review process and is available to address questions from the Board during the consideration of the review in case the Executive Board wishes.

Yours sincerely

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Annex 1: PDD version 4 dated 30th Sept.2007

Annex 2: Validation Report Annex 3: CERC order Annex 4: RERC order

Annex 5: A copy of MoU between project proponent and Japan Carbon Finance Ltd.

³ Refer: Para 67, page 20 and 21 of RERC Wind Order

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