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Date: 02/09/2008

To

Project Registration Team Member

UNFCCC

Subject: Request for Review for "15 MW Wind Energy Project in Maharashtra" (1778)

Dear Sir

We are pleased to submit hereby reply for the review points for your kind consideration.

Thanking you with regards...

Yours Faithfully,

For **M/s. D. J. Malpani**

Prafulla Khinvasara

1. The DOE should explain how it has validated that the sensitivity analysis is sufficient to prove that the project activity cannot be feasible without CDM benefits, including the assumption that a 10% increase in electricity generation is unlikely based on the performance of a similar project, following paragraph 17, EB41, Annex 45.

The Guidance on the Assessment of Investment Analysis (Version 02), paragraph 16, states that 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.

The different parameters that affect the viability of a wind power project are mentioned below -

Parameters	***Comments***
Electricity Generation	*This is the most important and critical parameter for any Power Project & hence viability of the project will be affected by any fluctuation in this parameter. Sensitivity analysis has therefore been carried out for it.*
Project Cost	*The promoters were aware of the project cost at the time of conceptualization of the project. Moreover it will not show markable change as the gestation period for wind power projects is very small. Hence this parameter has not been subjected to sensitivity analysis.*
O & M Cost	*This does not add to 20% of either total project cost or total project revenues and hence, sensitivity analysis has not been carried out for this parameter.*
Income from sale of electricity	*The parameter is dependent on two factors; generation and tariff rate. Sensitivity analysis for generation has already been carried out.* *For tariff rate, the we were aware of it because it is mentioned in the Maharashtra Electricity Regulatory Commission Order[1] dated.24.11.2003; we have*

[1] Maharashtra Electricity Regulatory Commission

	signed a Power Purchase Agreement with MSEDCL in which the Tariff rate is fixed at Rs.3.50/ Kwh with an escalation of Rs. 0.15 every year up-to 13th year. Hence not subjected to sensitivity analysis. *So, sensitivity analysis has not been carried out for income from sale of electricity.*

Hence we feel that sensitivity analysis has been carried out as per the requirement of Guidance on the Assessment of Investment Analysis: (Version 02) and adequately supports our claim of the project being additional. The related documents have been submitted to the DOE.

A 10% increase in electricity generation is unlikely based on the performance of a similar project, following paragraph 17, EB41, Annex 45.

As per paragraph 17, EB 41, Annex 45, point 1- "the DOE should assess in detail whether the range of variations is reasonable in the project context. Past trends may be a guide to determine the reasonable range. As a general point of departure variations in the sensitivity analysis should at least cover a range of +10% and -10%, unless this is not deemed appropriate in the context of the specific project circumstances" –

Sensitivity analysis for the project activity has been carried out to cover the range of +10 to -10% variations in generation.

Point 2- "In cases where a scenario will result in the project activity passing the benchmark or becoming the most financially attractive alternative the DOE shall provide an assessment of the probability of the occurrence of this scenario in comparison to the likelihood of the assumptions in the presented investment analysis, taking into consideration correlations between the variables as well as the specific socio-economic and policy context of the project activity"-

For the present project activity, project IRR exceeds the benchmark value by 0.02% when the generation value increases by 10%.

Saleable units: increase by	10.0%	7.5%	5.0%	2.5%
Benchmark value	**14.80%**	**14.80%**	**14.80%**	**14.80%**
IRR	14.82%	14.38%	13.93%	13.48%

Order: Case no. 17(3), 3, 4 & 5 of 2002, Date: November, 24 2003; (Website: www.mercindia.com)

However the paragraphs to follow explain why this 10% increase in generation is not a reasonable expectation.

Project IRR

For deriving project IRR, we have considered the guaranteed generation figure as promised by the WTG manufacturer and supplier. This generation guarantee is for first 2 years only out of expected life of 20 years and does not include grid availability factor and other factors such as array efficiency, machine availability, export KWh, transmission, wheeling & any other losses, breakdown etc[2]. Hence consideration of the guaranteed generation figure for entire 20 years without considering any further losses (not even transmission losses) is conservative itself. Moreover for achieving increase of 10% in generation, the WTG will have to achieve PLF of 24%[3]. However the analysis of past four year's data that has been sourced from Maharashtra Energy Development Agency[4] (MEDA) and which is publically available on its web site- www.mahaurja.com suggests that the PLF of wind power projects in Maharashtra did not even reach 20%. Table below shows PLF values for past four years.

Plant Load Factor for Maharashtra[5]

Year	Installed Capacity in Year (MW)	Cumulative Capacity (MW)	Generation (MUs)	Plant Load Factor (%)
2004-05	48.750	456.035	742.96	19
2005-06	545.100	1001.135	790.53	09
2006-07	484.5	1485.635	1709	13
2007-08	268.15	1753.785	1804.85	12

In addition to the data presented above, is the generation data from our existing 3.15 MW and 5 MW wind power projects in Satara and Jaisailmer districts of Maharashtra and Rajasthan respectively.

Details of generation at Satara Site	
Total no of WTGs	9
Capacity of each WTG	350 KW
Total installed capacity	3.15 MW

[2] As per Purchase order Clause 9

[3] [28800000 + (10% of 28800000)]/15000*24*365

[4] Registered as a Society on 26 July 1985, MEDA as an organization commenced functioning from July 1986. MEDA's objective is to undertake development of renewable energy and facilitate energy conservation in the State of Maharashtra, as a state nodal agency under the umbrella of the MNRE.

[5] http://www.mahaurja.com/PG_WE_Overview.html

Manufacturer	SUZLON Energy Ltd		
Make	SUZLON N 3335		
Generation Details			
Year	Guaranteed Generation[6]	Actual Generation	Percentage Reduction
2002-03	5400000 KWh	3532808 KWh	35%
2003-04	5400000 KWh	3405018 KWh	37%
2004-05	5400000 KWh	4023864 KWh	25%

Details of generation at Jaisailmer Site			
Total no of WTGs	4		
Capacity of each WTG	1250 KW		
Total installed capacity	5 MW		
Manufacturer	SUZLON Energy Ltd		
Make	SUZLON S 66		
Generation Details			
Year	Guaranteed Generation[7]	Actual Generation	Percentage Reduction
2003-04	10400000 KWh	6968986 KWh	33%
2004-05	10400000 KWh	7517618 KWh	28%

In view of the details given above, it can be safely concluded that the chances of generation exceeding the guaranteed generation is negligible, hence there is very little probability that the present project activity will ever become viable without CDM benefits.

2. The PP/DOE are requested to further explain the prevailing practice barrier, i.e. provide information on the number of wind projects, which represent the 4.39% wind capacity.

The interpretation of data was wrongly elucidated under prevailing practice barrier. The analysis refers to common practice in the region.

[6] Period of guarantee was 1 year, 6 Lakh units per WTG
[7] Period of guarantee was 4 years, 26 lakh units per WTG

Wind Power Cumulative Installed Capacity (MW): 2004 & 2005[8]

	31-Mar-04	31-Mar-05	Analysis				
States	Total Capacity, MW	Total Capacity, MW	Increase in installed capacity, MW	% increase from the previous year	% increase of all India total	Technical [9]Potential as on 31.12.2004	Percentage harnessed as on 31.03.2005
Andhra Pradesh	98.8	120.6	21.8	22	1.96	1750	6.9
Gujarat	202	253.5	51.5	25	4.64	1780	14.2
Karnataka	209.2	410.7	201.5	96	18.14	1120	36.7
Kerala	2	2	0	0	0.00	605	0.3
Madhya Pradesh	22.6	28.9	6.3	28	0.57	825	3.5
Maharashtra	407.5	456.3	48.8	12	4.39	3020	15.1
Rajasthan	178.5	284.8	106.3	60	9.57	895	31.8
Tamil Nadu	1362	2036.9	675.3	50	60.78	1750	116.4
West Bengal	1.1	1.1	0	0	0.00	450	0.2
Others	0.5	0	0	0	0.00	680	0.0
Total	2484	3594.8	1111	45		12875	27.9

Table 1

The leading wind energy generation States in India are- Tamil Nadu, Karnataka, Maharashtra, Gujarat and Rajasthan. If we compare the figures of these States, in spite of the installed capacity in Maharashtra in 2004-05 being more than Rajasthan and Karnataka, the actual percentage of potential harnessed is lower than both the states. In fact the percentage increase in capacity addition over the year 2004 for the State was only 12% where as for States like Karnataka, Rajasthan and Tamil Nadu it was as high as 95%, 60% and 50% respectively. When this increase in installed capacity of the

[8] This table has been reproduced from Table 1.98, Wind power cumulative installed capacity (MW): 2004 and 2005; Page- 201; Teri Energy Data Directory & Yearbook, 2004-05.
[9] http://mnes.nic.in/annualreport/2004-2005_English/ch6_pg1.htm

state over one-year period is compared with the total increase in installed capacity of the country over the same period, Maharashtra is seen to lag behind Gujarat, Karnataka, Rajasthan and Tamilnadu with just 4.39%[10] against 60.78% (TN) and 18.14% (Karnataka). Hence, we feel that growth rate of wind power installations in Maharashtra is slower than that of Tamil Nadu, Karnataka or Rajasthan.

3. The DOE is requested to provide reliable evidence that CDM was considered prior to the project start date and that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation, following the guidelines from paragraph 5, EB 41, Annex 46.

According to paragraph 5, EB 41, Annex 46, project activities with a start date before 2 August 2008, for which the start date is prior to the date of publication of the PDD for global stakeholder consultation, are required to demonstrate that CDM was seriously considered in the decision to implement the project activity through the following evidences-

(a) 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.

The chronology listed below explains our awareness about CDM funds for wind power projects as well as it being the decisive factor for the project activity.

1	Agreement for Brokerage Charges-Post Registration Emission Reduction Revenue between M/s DJ Malpani and Synergy Global Private Limited for 5.0 MW existing wind power project in Rajasthan	25.09.2005
2	Inter Office Correspondence regarding investment in new wind project activity	30.9.2005
3	Meeting of partners of M/s D.J. Malpani to discuss various issues including the project activity	20.10.2005
4	Letter from M/s D.J. Malpani to Suzlon	24.10.2005
5	Reply from Suzlon	25.10.2005
6	PO for 6 nos (7.50 MW) WTGs[11]	27.10.2005

[10] (48.8/1111)*100
[11] Start Date of the Project activity

(b) 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 chronology of events after the project activity start date illustrates clearly our intention to secure CDM funds for the project and the actions taken thereof.

6	PO for 6 no.(7.50 MW) WTGs[12]	27.10.2005
7	PO for 2 no. (2.50 MW) WTGs	05.12.2005
8	PO for 4 no. (5.00MW) WTGs	05.12.2005
9	Power purchase agreement (7.5 MW)	31.12.2005
10	Commissioning of 3 WTGs (3.75 MW)	31.12.2005
11	Commissioning of 1 WTG (1.25 MW)	06.02.2006
12	Commissioning of 1 WTG (1.25 MW)	06.03.2006
13	Commissioning of 1 WTG(1.25 MW)	26.03.2006
14	Commissioning of 1 WTG (1.25 MW)	29.03.2006
15	Commissioning of 1 WTG (1.25 MW)	31.03.2006
16	Inter Office Correspondence to initiate the CDM process	18.04.2006
17	Power purchase agreement (2.5 MW)	27.04.2006
18	Started approaching consultants and DOE for PDD development and validation • Email to TUV South Asia by M/s D. J. Malpani • Response from TUV South Asia to M/s D. J. Malpani • Email to Mitcon by M/s D. J. Malpani • Response from MITCON to M/s D. J. Malpani • Email to Synergy Global by M/s D. J. Malpani • Response from Synergy Global to M/s D. J. Malpani • Email from Eco-securities India Liaison office to M/s D. J. Malpani • Series of communication between ecosecurities and DJ Malpani	 • 04.05.2006 • 05.05.2006 • 04.05.2006 • 05.05.2006 • 04.05.2006 • 24.05.2006 • 10.06.2006 • 11.07.2006-20.07.2006

[12] Start Date of the Project activity

	• Series of Emails from Ernst & Young to M/s D. J. Malpani • Series of communication between Synergy Global & DJ Malpani • Request to MITCON for revision in professional fee	• 17.08.2006 • 24.08.2006 • 25.08.2006 • 12.10.2006 • 06.11.2006 • 21.09.2006 • 23.09.2006 • 25.09.2006 • 27.09.2006 • 09.11.2006 • 28.11.2006 • 29.11.2006 • 14.12.2006 • 20.01.2007
19	commissioning of 3 WTGs (3.75 MW)	13.08.2006
20	commissioning of 1 WTG (1.25 MW)	24.08.2006
21	Power purchase agreement (5 MW)	13.09.2006
22	Work order to the consultant	24.01.2007
23	Submission for Host Country Approval	22.03.2007
24	Appointment of Validator	16.06.2007
25	Web hosting of PDD for public comments	13.07.2007

As is evident from the chronology listed above, we had already initiated the CDM process for our existing wind power projects in Satara and Jaisailmer when decision to go ahead with the current project activity was taken. Guided by the consultant, we waited for all installations to be over for the current project activity prior to start of the CDM process. However in the mean while we initiated negotiation with different consultants and DOE, being aware of the fact that this process would take time. This was to ensure that as soon as the installation of last WTG is over, the CDM process may begin. We had infact even accepted the proposal of our existing consultant vide mail dated 09/11/2006. However due to unavoidable reasons we had to back out from this agreement and appoint a new consultant. We lost a lot of time because of this.

We feel that the evidences mentioned above adequately explain that we were well aware of the availability of CDM funds and that it was a decisive factor for this project activity. We also feel that that the evidences support our claim of sustained endeavor to secure this fund so that the viability of the project is maintained throughout in spite of fluctuation in generation.

We hope that all responses are in line with the queries raised by CDM EB and therefore request CDM EB to register the project as CDM project.