

RESPONSE TO REQUESTS FOR REVIEW

Bureau Veritas Certification has performed a validation of the “5.8 MW Wind Energy Generation by M/s Patspin India Limited” (hereafter called “the project”) located at Soundarapandiapuram and Govindapuram villages of Tirunelveli and Erode Districts respectively in Tamil Nadu, India.

The request for registration was made in September 2008 (Reference number: 2026) and was under review from 12/09/2008 to 11/09/2008. Subsequently, there have been 3 (three) requests for review, which were received on 13/10/2008. Since all the requests are identical, we are providing common responses to the issues that have been raised.

Our response to the review points have referred to various annexes which are attached by Project Participant along-with their response. These are not separately attached with our response again.

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 should clarify why it has not validated the investment cost based on invoices and the PLF on actual or manufacturers' data as the project activity is already operational, and also why the tariff for self-consumption is: (a) based on electricity bills prior to the sale to the grid (Dec. 2005); (b) assumed to be higher than the selling rate to the grid; and (c) assumed to be fixed for the whole wheeling period (second year onwards).

As per the guidance provided by EB in meeting no 39, Annex no 35 on financial analysis, input values used in all investment analysis should be valid and applicable at the time of the investment decision taken by the project participant. As per this guidance, the investment cost and the PLF appropriate and relevant at the time of decision-making, submitted by the project participant, was validated by the validation team.

The project participant has considered the input values for IRR calculations as available at the time of decision-making. As already explained in section 3.2 of the validation report (page 16), as part of the validation, the assumed values of investment costs by the PP based on proposals from manufacturer were also verified through the invoices/purchase orders to find that the assumed values on investment cost are the same as that actually incurred by the project participant. Plant load factor of 27.46% was considered by the PP based on the publicly available TNERC discussion paper on “Tariff related issues” for Non Conventional energy Sources dated 24/10/2005 (Annexure A). Out of the four wind energy turbines, the last turbine got commissioned only in May 2007. Hence the actual generation data for all the turbines for a period of one year covering all the wind seasons i.e., from June 2007 to May 2008 were verified to note that the actual PLF achieved was only 26.58% (Annexure B). Thus the PLF considered is conservative than what is actually achieved.

a) With regard to the tariff for self-consumption, the investment decision of this project was taken on 21st January / 16th February 2006 as verified through the Board minutes. As the new spinning mill of Patspin India Limited at Ponneri, Udumalpet, Coimbatore District was not operational at the time of decision-making, the project participant has taken the tariff for self-consumption applicable from the electricity bill of its group company, GTN Enterprises Ltd for the month of December 2005 (Annexure C), which is pertaining to the month prior to the decision-making and the validation team accepted the same since the bills of GTN Enterprises Ltd were relevant.

b) As per the Tamil Nadu government policy (<http://www.tn.gov.in/policynotes/archives/policy2003-04/energy2003-04-1.htm>) the power purchase rate for windmills were fixed at Rs. 2.70 per kWh. This is also verified through the power purchase agreements of the PP with Tamil Nadu Electricity Board. The tariff for captive consumption is adjusted based on the actual HT tariff the PP otherwise would have paid to

Tamil Nadu Electricity Board, if power is imported from grid and hence the power tariff applicable for captive consumption is Rs 3.50 /kWh + 5% electricity duty.. Tamil Nadu Electricity Regulatory Commission (TNERC) fixed this through order dated 15th March 2003 and 14 June 2004 (http://www.tneb.in/template_3.php?tempno=3&cid=0&subcid=54 , www.tnerc.gov.in/orders/newtariff.pdf). Hence the tariff for self-consumption is higher than that of selling to grid. This is evident and verified through the electricity adjustment bills of GTN Enterprises Ltd for the month of December 2005, as said above.

c) Patspin India Limited proposed to sell the power to southern grid initially and then to wheel the generation to their new spinning mill at Ponneri, Udumalpet, Coimbatore District, which was expected to be commissioned in the second year from date of decision by the Board of directors, for its internal power consumption. In the absence of any indication from the regulatory authorities about escalation or revision of tariff for wheeled power, PP had considered a constant value for the same over the crediting period. The validation team also verified the power purchase agreements to see that there is no indication of any escalation of tariff in the power purchase agreement or validity of the PPA. Hence the present tariff could continue for the crediting period. Actual practice also supports this assumption with the power tariff has not been revised till date and remains at the same level of Rs. 2.70 for sale to grid and Rs. 3.50 + 5% electricity duty for captive consumption. The validation team also verified this through the latest electricity bills for September 2008 (Annexure D). The validation team accepted this since as explained in response to question 2 below and as demonstrated through the sensitivity analysis, even with increase in 10% of tariff/PLF, the IRR does not cross the benchmark considered.

Question 2

The DOE should clarify why it has considered the PLF as the only critical parameter for the sensitivity analysis and how it has considered that the project activity is additional with the IRR (10.46%) actually passing the benchmark with a 10% increase in the PLF.

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 only 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. This 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 PLF is directly proportional to the generation. 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 same extent. Hence the choice of PLF as variable for the sensitivity analysis is justified.

The other parameter, which can affect 20% of the total cost for this case is only the investment cost. Since the investment costs were considered by the PP on the proposal and negotiated values as verified from the purchase orders, there were no possibilities of this cost getting reduced. In such a case, the sensitivity analysis would have to be performed only for an increase in capital cost which would have resulted in decreasing the project IRR further. Hence the validation team accepted the sensitivity analysis presented by the PP with PLF as the indicative parameter.

The actual PLF of the wind turbines of various wind-zones (passes) in the state of Tamil Nadu was presented in the discussion paper of Non conventional Energy Sources in December 2005 (Annexure A Page 32). As per this paper, the average PLF for Palghat pass and Muppandal pass are 22.63% and 28.74% respectively and the weighted average PLF for larger machines in the state of Tamil Nadu is defined as 27.46%. The Wind turbines of the project activity of Patspin India Limited fall in the wind-zone of Palaghat belt (2 turbines) and Muppandal Pass (2 turbines) and are large turbines. Considering the average PLF of the respective passes, the weighted average PLF for the project activity will workout to

26.52% ($1.65 \times 2 \times 28.74 + 1.25 \times 2 \times 23.6/5.8$). However, the PP has considered a PLF of 27.46% in the base case, for the IRR calculations, which is conservative. A +10% variation in PLF will take the value of PLF to 30.2%. This value is unlikely to be achieved for the lifetime of this windmill project activity in light of the discussions in the above said paper. As said above, the validation team verified the actual generation data for the windmills of Patspin India Limited for a period of one year covering all the wind seasons i.e., from June 2007 to May 2008 and found that the actual PLF attained was only 26.58% (Annexure B). However, even at 30.2% PLF (+10% of base value), which is very unlikely for the project activity, the project IRR was only 10.46% and does not cross the benchmark value of 10.5%. Thus the validation team considered the project activity as additional as demonstrated by the investment analysis.

Question 3

The DOE should confirm the project start date and provide evidence of continuing and real actions taken to secure CDM status for the project activity in parallel with its implementation (EB41, Annex 46, para. 5(b) guidance).

Though the management of Patspin India Limited, decided in its Board meetings conducted on 21st January 2006 and 16th February 2006 to invest on the windmills in Tamil Nadu state, the first real action for the project activity started on 18/02/2006 with the placing of purchase orders for the first set of 2 x 1250 kW WTGs. The validation team therefore hereby confirms the start date of the project activity as 18/02/2006

As directed by EB, we provide below the detailed chronology of various events from start date. The corresponding evidences are referenced in the response by project participant, which is submitted along with this response and the supporting documentary evidences.

Sl no	Dated	Action	Evidence
1	21-Jan-06	Board of Patspin discusses expansion of their manufacturing unit and possibility of setting up windmills for captive consumption	Board minutes
2	28-Jan-06	Third party assessment report stating windmill is not viable without CDM revenue	Copy of report of Chartered accountant
3	16-Feb-06	Board approves the decides to put up windmill and avail CDM revenue to make it viable	Board minutes
4	18-Feb-06	Engage a consultant (Bharathi Priya consultancy for documentation)	Engagement letter
5	18-Feb-06	Purchase order on windmills - Suzlon	Copy of purchase orders
6	04-Apr-06	Commissioning of Suzlon machines	Commissioning certificates
7	July 06	Patspin decides to change consultant	No evidence provided. However the contract automatically ceases at the end of 4 moths, as per contract.
8	28-Aug-06	Proposal for availing carbon credit from Synergy Global	Copy of e mail
9	03-Oct-06	Letter from Senergy Global P. Ltd. regarding project due diligence documents	Copy of e mail
10	29-Nov-06	Letter from Analyst – Carbon Advisory Services, NEG Micon	Copy of e mail
11	19-Dec-06	Presentation by Deloitte	Copy of e mail
12	02-Jan-07	Project enquiry note from M/s.Asia Carbon Emission Management India Pvt. Ltd.	Copy of e mail
13	04-Jan-07	Enquiry with Consultants M/s.Asia Carbon Emission Management India Pvt. Ltd.	Copy of e mail
14	24-Jan-07	CDM Proposal from CantorCO2e	Copy of e mail

15	30-Jan-07	Letter from Senergy Global Consultants	Copy of e mail
16	23-Feb-07	Draft engagement letter – CDM Project	Copy of e mail
17	28-Feb-07	Carbon Credit CDM proposal – Deloitte	Copy of e mail
18	18-Apr-07	Mail from CantorCO2e – CDM documents	Copy of e mail
19	18-Apr-07	Mail from CantorCO2e – Acknowledgement of the assignment for CDM project	Copy of e mail
20	04- May-07	Commissioning of Vestas Machines 2 nos	Commissioning certificates
21	12-Jul-07	Patspin India Ltd agreement with Cantor CO2e	Engagement letter
22	16th and 17th July, 2007	Minutes of the discussion of Carbon Credit Project with CantorCO2e	Copy of minutes
23	24-Aug-07	Submission for Host country approval	Copy of covering letter
24	08-Sep-07	LOA to Bureau Veritas	Copy of e mail
25	13-Sept-07	Confirmation regarding web hosting of PDD	Copy of e mail
26	27-Oct-07	Mail after site visit	Copy of e mail
27	15-Nov-07	Host country approval	Copy of HCA

As per the paragraph 5.b. of “Guidance on the demonstration and assessment of prior consideration of CDM”, 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 was submitted as Appendix 1 in the revised PDD submitted at the time of requesting for registration. As requested, the project participant along with their response submits all the evidences for the chronology of events listed above. The project participant has provided additional information subsequent to the request for review by EB. This is listed at SI Nos 4 & 7 in the chronology provided above in this response which is regarding engagement of a consultant namely Bharathi Priya consultancy for documentation and the PP’s decision to change the consultant.

We hope the clarifications provided above are satisfactory and request you to kindly register the project.

Thanking you,
On behalf of Bureau Veritas Certification Holding SAS

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