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CDM Executive Board

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Response to Request for Review of project "Bundled Wind power project in Tamilnadu, India co-ordinated by the TamilNadu Spinning Mills Association (TASMA)" (Ref. no. 0991)

Dear Honourable Members of the CDM Executive Board,

Please find below the response of the TÜV NORD JI/CDM Certification Program to the request for review for the above mentioned project No. 0991.

If you have any questions do not hesitate to contact us.

Yours sincerely,

TÜV NORD JI/CDM Certification Program

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Question Raised by the EB

- 1** The DOE should clarify why a notification or request for approval of changes to the PDD was not submitted, considering that;
- (a) the actually installed capacity (i.e., 467.79 MW) differs from the one stated in the PDD (467.81 MW); and
 - (b) the sensitivity analysis was carried out with +/-4% variation over generation in the PDD while the project has constantly generated more electricity than the estimated in the PDD throughout the past 6 years.

☒ **Additional Comment by DOE**

With regard to the issue (a) addressed above TÜV NORD provides clarification as following: TÜV NORD has checked that the number of 704 WTGs remains invariant in the registered PDD, MR (actual situation) and ER sheet submitted to UNFCCC.

At the verification stage TÜV NORD checked the registered PDD (Version 9) to confirm information obtained during the on-site visit. The following has been observed:

	Registered PDD	On-site visit
No. of turbines	704 (p. 2, p. 6, p. 7)	704
Total Capacity	468 MW (p. 2, p. 25); 467.81 MW (p. 6, p. 7)	467.79 MW
No of Type 225 kW turbines	144 (p. 6, p. 7, Appendix 3)	148
No of Type 230 kW turbines	10 (p. 6, p. 7, Appendix 3)	6

In accordance to EB 48 Annex 66 a notification of changes need to be submitted if the “implementation or operation of a CDM project activity does not conform to the description contained in the registered PDD (...)” The information provided in the PDD is not consistent in terms of the installed capacity as per the table above. Referring to the installed capacity of 468 MW the difference observed with regard to the number of turbines does not have an impact on the effective output of the capacity, i. e. rounded the installed capacity remains 468 MW as per the registered PDD.

The difference between the figure of installed capacity as provided in the PDD and which has been observed during the site visit is 20 kW (0.020 MW) or 0.0043 %. The deviation refers to the fourth significant digit. TÜV NORD concluded that this could not be considered as a change in the effective output capacity as referred to in EB 48 Annex 67 paragraph 5 (a). Therefore CL U3, where the issue was raised, has been closed out. Nevertheless, to avoid any ambiguity for the rest of the crediting period TÜV NORD raised a FAR to ensure that for future verifications absolute consistence in the project documentation is achieved.

In conclusion, in parallel to this response on the request for review a notification of change will be submitted to ensure consistency within the documents.

TÜV NORD provides clarification on the issue (b) raised as following:

The project has been validated by another DOE. Hence, the reason for applying a range of $\pm 4\%$ for the sensitivity analysis cannot be tracked by TÜV NORD. However, it should be noted that the project has been registered at a very early stage of CDM. Clear guidance on how to consider possible variations of financial figures was not available at the time of the validation; e. g. the initial adoption of the “Guidelines on the assessment of investment analysis” was in May 2008, almost 1 year after registration.

The project is a phased implementation of the wind farm. Full operation was achieved in 2006. Therefore TÜV NORD concluded that a comparison of actual emission reductions and expected figures as provided in the PDD shall be based on full year operation data which is 801,520 tCO₂.

The following table is showing the actual annual verified amount of emission reductions compared to the data provided in the PDD.

Year	CERs Projected (tCO ₂)	CERs Achieved (tCO ₂)	Difference (tCO ₂)	Difference (%)
2006	801520	831010	29490	4%
2007	801520	862742	61222	8%
2008	801520	817530	16010	2%
2009	801520	915507	113987	14%

TÜV NORD is able to ascertain that the reason for an overall increase of generation is not related to the capacity decrease of 20 kW. Once the project has been in full operation from 2006 to 2009, the generation increase has been varying between 2% to 14%. The table above shows that the electricity generation has been fluctuating from year to year. The 2009 can be seen as an exceptional year compared to the other previous years. This increase is attributable to the following 3 main reasons:

1. Increased wind availability;
2. Increased grid availability; and
3. Wind turbine availability (Machine Availability).

TUV Nord refers to news report published on May 23, 2009¹ which states that in May 2009 the wind power generation had exceeded the target of 484 million units proposed by the TNEB. Further the news report has attributed the high wind generation due to the early summer winds and also the fact of the high velocity of the wind. This has resulted and netted in high wind generation.

And apart from that it is also evident from the news reports published in October 8, 2009² that the usual winds which slow down in October had not subsided and it is also seen to have steady wind until Deepavali (until November). Adding to that the Madras High Court had also permitted wind mill owners to consume, without any restriction, the energy produced by them. Another news article dated December 25, 2010³ also gives insight on the generation of the year 2010 which had dipped from 2009 by about 15% during the peak season (May to October). Thus, TUV Nord is able to state that the year 2009 has been exceptional with higher generation due to extended wind availability and good grid availability.

To look into the matter of grid availability, it is evident that, from November 1, 2008 Tamil Nadu had faced a severe power crisis. To counter balance the situation TNEB accepted to inject to the grid each and every unit generated by all power projects including wind projects without any wastage and this has resulted in increased grid availability when compared to all the previous years. TUV Nord to ascertain the same has verified the reports and information that were available from TNEB and TNERC (please refer to the following links),

Links:

¹ <http://www.thehindubusinessline.in/2009/05/23/stories/2009052351851700.htm>

² <http://www.hindu.com/2009/10/08/stories/2009100853480500.htm>

³ <http://www.thehindu.com/news/states/tamil-nadu/article979406.ece>

1. <http://www.tneb.in/linkpdf/inst-011108.pdf>
2. <http://tnerc.gov.in/orders/commn%20order/2009/INDIAN%20WIND%20POWER%20ASSOCIATION.pdf>

As evident from one of the TNERC Order⁴ dated 22.10.2008, Tamilnadu Government has ordered power cut to a volume of 40% from 01.11.2008 and thereafter, the power cut to various end users was reduced to 30% and 20% in a phased manner during 2009 and 2010 respectively. This phased decrease in power cut has been achieved with increased power generating options and also power purchases. This had resulted in the increased grid availability.

Thus, TÜV Nord is able to state that in 2009 the generation has been very good accounting to Wind, Machine and Grid availability.

It should be further noted that the electricity generation needs to be increased permanently by around 10 % and 6 % to reach the benchmark of 16 % based from the average IRR and the maximum IRR, as indicated in the PDD.

In conclusion, TÜV NORD could verify that the reason for the increased electricity generation is mainly due to increased wind availability (due to natural conditions) and grid availability (due to governmental decision). Since, the wind availability and the grid availability is not within the control of the of the project participant (EB 48, Annex 67 paragraph 5 (d)) TÜV NORD concluded that the increased generation cannot be subject to a notification of changes.

The same justification has been provided in the revised verification report in CAR R2 to ensure transparency.

☐ **Other/Additional documents**

Question Raised by the EB

2	The DOE is requested to clarify why some cells in the spreadsheet submitted (such as cells O211, I232, I284, I332, O373, H,I,J,K,L and M378, 380, 382, 384 and 387, I498, H563, 566 and 567) contain two values added and two values subtracted, while the values reported are monthly aggregated figures of electricity exported minus electricity imported.
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☒ **Additional Comment by DOE**

TÜV NORD opened a new CAR to address this issue adequately.

☐ **Other/Additional documents**

⁴ <http://www.tneb.in/linkpdf/inst-011108.pdf>