

CDM Executive Board
DNV

11 December 2006
Ref. CRM/UNFCCC/0695

Dear Sir, Madam,

Response to the requests for review - 0695 Yanling Shendu Hydropower Project

We are disappointed to hear that the EB has requested review for our project. We are particularly disappointed as we believe that the review is unnecessary as the issue regarding the capacity expansion is based on a misunderstanding, and the methodology has been applied correctly and in line with other projects in China recently registered by the EB, including three projects registered in the last few weeks.

We will clarify each of the issues raised below.

Requests 1:

“According to the RIT analysis it seems that the CDM was taken into account only when the increase of the capacity of the initial project was decided ... so may be only a part of this project activity should be considered as additional. This point should be clarified before registration.”

And requests 2:

“According to the RIT analysis it seems that the CDM was taken into account only when the increase of the capacity of the initial project was decided ... so may be only a part of this project activity should be considered as additional. This point should be clarified before registration.”

Response to requests 1 & 2:

It is correct that the project capacity has been increased beyond that mentioned in the initial feasibility study. However, this does not impact the additionality assessment as described in the PDD. The assessment is clearly described for the

project as a whole and not just for the expanded capacity. And the DOE confirmed from the analysis that the project (not the additional capacity) is additional.

The initial feasibility study in 2001 was for an installed capacity of 5MW. The project was approved on 26 January 2003. Following approval, the opening ceremony for construction was held on 15 March 2003. However, after the ceremony construction work did not start, as no financing could be obtained.

The continuing monitoring of the available hydro resource over the years showed that the resource proved sufficient for a slightly increased capacity of 6.4MW. This capacity increase would reduce the investment per kW (and increase generation and therefore revenues) and make the project more economically attractive. The actual construction permit was not applied for until after this decision to expand the capacity.

At the same time, in early 2003, the option of the CDM was explored by the project developer. This showed that if the project would register under the CDM, it would reach the minimum required (benchmark) return, which would make it more likely to obtain the financing from the banks.

Using the economic performance improvements of both increased capacity and CDM registration, the developer was able to obtain financing - but only for an amount of 50% debt. Needing a 50% equity share, the company had to attract additional shareholders, adding barriers.

The additionality assessment in the PDD shows that financing could not be obtained for the project, and therefore that the project would not be constructed. In order to be conservative, the assessment shows that even taking into account the expanded capacity (and therefore better economic return than with the original 5MW capacity) the project was not economically attractive without CDM registration. This assessment was confirmed by the DOE.

In conclusion, the project as a whole is additional. The project would not have been constructed without CDM financing.

Requests 3:

“The application of the baseline methodology, in particular, the estimation of the build margin (BM) emission factor is not in accordance with the CDM Executive Board (EB) approved methodology, AMS I D Version 9 which refers to use of ACM0002 for combined margin approach), but rather on the substitute method as accepted by the

EB for China in response to the request for deviations by DNV. It should be noted that CDM project activity registration review form (F-CDM-RR) (By submitting this form, a Party involved (through the designated national authority) or an Executive Board member may request that a review is undertaken) neither the PDD nor the validation report failed to provide the reference for this deviations, which goes against the requirement for transparency. Apart from this omission, the Meth expert has pointed out a number of issues pertaining to the use of the substitute method:

The BM has been estimated using a single Carbon Emission Factor (CEF), applicable for coal (24.74 tC/TJ) which is the highest of other fuels' CEFs, comprising the grid, the lowest being 13 tC/TJ. This may lead to overestimation of the BM based baseline emissions with the validation report simply saying that "the installed capacity addition for oil and gas power plant being regarded as zero is deemed reasonable". This is a gross assumption that the installed capacity is predominantly coal and not oil or gas. It is suggested that BM should be re-estimated by either using the respective CEF based on the fuel type or using a weighted average CEF."

Response to this issue:

1. It is correct that there was no full reference to the deviation. However, the EB's answers to the request for deviation were given in the validation report (section 3.6). Reference to the request for deviation and the EB's response are:

On 7 October 2005, DNV submitted a request for guidance to EB: Application of AM0005 and AMS-I.D in China¹. In the response letter of EB to DNV titled "Several projects in China (application of approved methodology AM0005) - DNV"², it says:

"The Board took notice of the request for deviation in use of methodology AM0005 by several project activities in China, which were as follows:

- 1) Use of average efficiency of existing power plants in the grid as proxy for estimating fuel consumption.*
- 2) Use of capacity additions during last 1 - 3 years for estimating the build margin emission factor for grid electricity.*
- 3) Use of weights estimated using installed capacity in place of annual electricity generation.*

The Board did not accept deviation listed in 1) above. The Board while rejecting the suggested deviation from the suggested method in AM0005,

¹ <http://cdm.unfccc.int/UserManagement/FileStorage/6POIAMGYOEDOTKW25TA20EHEKPR4DM>

² http://cdm.unfccc.int/UserManagement/FileStorage/AM_CLAR_QEJWJEF3CFBP1OZAK6V5YXPQKK7WYJ

suggested that the project participants use the following alternative solutions in absence of data:

- (i) For small-scale project activities, use the average emission factor of the grid as described in the AMS-I.D,*
 - (ii) Use the efficiency level of the best technology commercially available in the provincial/regional or national grid of China, as a conservative proxy, for each fuel type in estimating the fuel consumption.*
- The Board agreed to accept the proposed deviations in 2) and 3) above.”*

From this response, it can be seen that EB has adopted the substitute method used for calculation of BM, which has been used widely by Chinese CDM projects, which is applicable to AMS-I.D.

2. The method for calculating the Build Margin emissions factor as referred to has been used by virtually all renewable energy projects in China (projects using ACM0002, AM0005, or ASM-I.D) since the EB’s response to DNV’s request in October 2005.

However, the application of this methodology has been requested for review (projects 0561 and 0576) and is now awaiting resolution at EB28 - this project (0695) was submitted for registration through the DOE before the requests for review were received.

However, since the beginning of November 2006 (i.e. after the request for review for the two projects above, and before the request for review for this project) three projects using the same calculating methodology have been registered by the EB, which confuses matters relating to what methodology to follow. (Note: only one of these projects included a reference to the deviation as discussed under 1 above.)

3. The BM calculations use coal-fired capacity only. As shown in Table A3 in the PDD, emissions from coals (solid fuels) account for 99.5% of the total emissions in the Central China Power Grid. Indeed, the DOE confirms in the validation report that “the installed capacity addition for oil and gas power plant being regarded as zero is deemed reasonable”.

In addition, the efficiency of coal-fired capacity used is better than that currently existing. The current average fuel efficiency in the grid is 371 grammes standard coal equivalent per kWh (gce/kWh); the Yearbook 2005 gives the lowest consumption in CCPG as being 358 gce/kWh; and the NDRC uses 336.66 gce/kWh as the best available technology for coal. In the PDD we are

using the projected efficiency for 2010: 320 gce/kWh. Adopting this higher efficiency reduces the calculated baseline emissions further than the 0.5% of generation that may be derived from oil or gas.

Finally, the PDD adopts the CEF for coal from the National Study on China Climate Change, which is 24.7tC/TJ, more conservative than the IPCC default values which are generally used by the DNA.

4. The emission factors calculated in the PDD for the Central China Power Grid are conservative, as shown in the table below. The emission factors calculated in this PDD are significantly lower (i.e. more conservative) than those published by the Chinese DNA.

	This PDD	NDRC
OM	1.111	1.4030
BM	0.400	0.6363
CM	0.7555	1.0197

Conclusion

In conclusion, the issue raised with regards to the capacity expansion was based on a misunderstanding and the project proponents have followed the accepted methodology for calculating the emissions factor for renewable energy projects in China, following guidance from the EB, the Chinese DNA and the DOE. Therefore, having explained the issues we hope that the EB accepts these clarifications and approves the project without further delay.

Yours sincerely,

Christiaan Vrolijk