DET NORSKE VERITAS

UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D-53153 Bonn
Germany

Att: CDM Executive Board

DET NORSKE VERITAS
CERTIFICATION AS

Veritasvegen 1
N-1322 Høvik
Norway
Tel: +47 6757 9900
Fax: + 47 6757 9911
http://www.dnv.com

Your ref.:	Our ref.:	Date:
CDM Ref 1264	MLEH	06 December 2007

Response to request for review
"Sandaowan Hydropower Project in Gansu Province, P.R. China"

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by three Board members concerning DNV's request for registration of the project activity entitled "Sandaowan Hydropower Project in Gansu Province, P.R. China" (1264) and we would like to provide the following response to the issues raised by the requests for review.

Comment 1: Further information is required to show how the investment analysis has been validated.

The applicable benchmark for the project is 8% as demonstrated in the PDD. According to the Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects, which was published in 2003, the financial benchmark (rate of return after tax) of Chinese Power Industries is to be at least 8%. This rate is widely used as the sector benchmark rate for hydropower projects.

DNV was able to verify that the tariff applied in the financial analysis is taken from the Gansu Price Bureau's national Policy on the note for standardizing the electricity tariff for some hydropower companies in Gansu province.

All the other parameters applied in the investment analysis are taken from project's Feasibility Study Report, which was carried out by Gansu Hydro Power Reconnaissance & Design Institute, an independent third party, and approved by local government as referenced in the validation report submitted at the request for registration. During validation, DNV checked the spreadsheet of the IRR calculation and was able to verify that the calculation is correct.

Comment 2: Further substantiation of the common practice analysis should also be provided e.g., what other differences exist between the project activity and the existing projects and what is the total hydro capacity in Gansu Province.

In 2002, China underwent a suite of significant reforms. Under the reforms, the China State Power Corporation was diversified into five separate regional grids[1], consequently changing the tariffs and allowable amounts of electricity supplied to the grid[2]. Secondly, under the reform, there were changes to the existing electricity tariff

[1] The first reform consisted of the reorganisation of the power companies in order to break the monopoly of the China State Power Corporation and ensure fair competition, and to separate generation from transmission. The second one consisted in the centralisation of the power sector through the inclusion of the State Economic and Trade Commission in the National Development and Reform Commission (NDRC), which then opened a renewable energy department under the Energy Bureau, thereby enabling the creation of coherent policies in the power sector. *Source*: Lemaa, A and Rubyb K. (2007) Between fragmented authoritarianism and policy coordination: Creating a Chinese market for wind energy, Energy Policy, 35, 3879-3890. Also see: http://english.people.com.cn/200204/12/eng20020412_93913.shtml

[2] Sections 5-7, 2003 Yearbook of China Electric Power, Page 14

mechanisms[3]. As a result, the investment environment of power production projects in China changed significantly in 2002. Due to this, projects prior to 2002 were not developed in a comparable environment with respect to regulatory framework and investment climate. Therefore, only those hydropower projects approved and implemented after 2002 have been taken into account in the common practice analysis. DNV deems this to be acceptable.

We refer to the project participants' response to the request for review for a comparison of the four hydropower investment projects similar to the proposed project activity. The first two of the four hydropower plants listed in the PDD are the Longshou II and Xiaoxia hydropower plants. These projects benefit from both an electricity tariff and operation hours that are higher than for the Sandaowan project.

The other two projects in the list, Caijiaxia Hydro Power Station and Qilinsi Hydro Power Station, have the same electricity tariff as the proposed project activity, according to the approval letters from Gansu Price Bureau. However, both have significantly higher operation hours than the proposed project activity.

The electricity tariffs of the four similar projects listed in the PDD are all sourced from the approval letters from Gansu Price Bureau for each project. The operation hours of Longshou II are in accordance with the approval of feasibility study report from Gansu Province Development and Reform Committee, the local government. The operation hour of the other three hydropower projects, Xiaoxia, Caijiaxia and Qilinsi, listed in the PDD are from the information on the public websites[4].

All documents and information mentioned above have been verified by DNV and are deemed acceptable.

The amended PDD attached to the project participant's response to the request for review describes this in more detail than the original PDD submitted for registration.

In 2005, the total installed capacity of hydropower plants in Gansu province was 4036 MW based on the latest public available survey from the China Electric Power Yearbook 2006.

Comment 3: The monitoring plan should clearly outline the monitoring of the net electricity generated by each of the three hydro plants, and the number and location of meters.

There is only one hydropower plant for Sandaowan hydropower project, with a total of three turbines. The total amount of electricity delivered to Northwest Power Grid by this project will be monitored with one electricity meter installed in Heihe Electric Substation, which will be adjusted to national standards and calibrated annually. The meter will be placed at the exit of the substation with a back-up meter, and is the basis for invoicing to the grid operator. This is in line with the requirement of the approved methodology. The meter installed in the substation is a bidirectional meter which can measure the electricty downloaded from the Grid, and hence will monitor the net electricity generation.

Comment 4: The start date of the project activity should be revised in the PDD to the earliest of the dates at which the implementation or construction or real action of the project activity began.

At the time of the project submission for registration, the clarification by the Executive Board (EB33) on the correct interpretation of the starting date of a project activity was not available.

---

[3] Electricity tariff was set according to local demands and grid structure and is divided into tariff of electricity to grid, transmission tariff, distribution tariff and sales tariff. Sections 17-22, 2003 Yearbook of China Electric Power, Page 11-12.

[4] Xiaoxia hydropower project:
http://video.zhulong.com/shipin/detail.asp?id=196286; http://www.freshpower.cn/news/news_detail.asp?NewsId=14791
Caijiaxia hydropower project:
http://www.hwcc.com.cn/newsdisplay/newsdisplay.asp?id=116142; http://news.ieicn.com/4854.html
Qilinsi Hydropower project:
http://www.gcxm.com.cn/info0.php?id=40314&keyword=;
http://www.freshpower.cn/news/news_detail.asp?NewsId=15138.

The construction permission is a prerequisite for the actual implementation of any construction project and is thus representative for the date of when the final decision to proceed with the project is made.

DNV was able to verify the construction permission letter issued by Gansu Construction Departmant and confirm that the project construction permission date is 4 April 2005. Therefore it is deemed reasonable to regard this date as the project starting date.

We sincerely hope that the Board accepts our above explanations.

Yours faithfully,
for Det Norske Veritas Certification AS

Michael Lehmann

Technical Director