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Att: CDM Executive Board

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### Your ref.:Our ref.:Date:CDM Ref 2122BRINKS/FRZ/MARFI23 February 2009

### **Response to requests for review of the project "Hubei Xuan'en Tongziying Hydropower Station" (CDM Reference No. 2122)**

Dear Members of the CDM Executive Board,

We refer to the issues raised in the requests for review by three Board members concerning DNV's request for registration of the project activity 2122 "Hubei Xuan'en Tongziying Hydropower Station" and we would like to provide the following clarifications for your consideration and review.

Question 1: The DOE is requested to clarify how it has validated that the project start date complies with the CDM Glossary of terms and to confirm that continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation in line with EB41, Annex 46, para. 5(b) guidance.

#### **DNV's response:**

The following chronological events demonstrate that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. DNV verified all the documented references for this list below during the validation process:

- October 31, 2004: the project owner signed the purchase agreement<sup>1</sup> of the turbines and generators. The starting date of the project activity has been changed to this date. During the validation process, when analysing the chronological events, the date in which the construction permit was issued by Hubei Province Water Resource Ministry was considered to be the project starting date due to the fact that the first payment relative to the turbine purchase agreement was made on the May 31, 2005, i.e. after the issuing of the construction permit. However, the signature by the project owner of the purchase agreement of the turbines and generators is a legally binding contract and consequently the new project starting date should be the October 31, 2004.
- April 25, 2005: the project owner issued to Beijing Tianqing Power International CDM Consulting Co., Ltd (hereafter referred to as" Tianqing") a letter of commitment<sup>2</sup> for CDM application.

<sup>&</sup>lt;sup>1</sup> Purchase agreement signed between the project owner and Zhejiang Fuchunjiang Hydropower Equipment Manufacture Co. Ltd.

<sup>&</sup>lt;sup>2</sup> Letter of Commitment for CDM application issued by the Project Owner on the 25 April 2005

- April 30, 2005: the Hubei Province Water Resource Ministry<sup>3</sup> issued the construction permit.
- June 15, 2005: the project owner signed a PDD Development Contract<sup>4</sup> with Tianqing.
- October 12, 2005: the project owner signed Cooperation Agreement <sup>5</sup> of CDM Application with Tianiqing.
- January 18, 2006: the project owner signed a CDM Emission Reductions Purchase Agreement<sup>6</sup> with the ENEL Trade SpA.
- **February 2006:** the project owner publicized the CDM stakeholder consultation meeting in the Beijing Tianqing Power International CDM Consulting Co., Ltd bulletin<sup>7</sup> published on the <u>www.tqcdmchina.com</u> website.
- May 11, 2006: the CDM stakeholder consultation meeting was announced in the newspaper of Enshi Evening Paper and held May 18, 2006.
- August 7, 2006: the project owner and Tianqing submitted the PDD application<sup>8</sup> to National Development and Reform Committee, which was approved December 31, 2006<sup>9</sup>.
- February 21, 2007: ENEL Trade SpA signed a validation contract with DNV.
- June 27, 2007: The PDD was published for global stakeholder consultation initiating the validation process.

DNV was able to verify all the documented evidences listed above during the validation process, and therefore DNV can confirm that continuing and real actions have been taken according to the requirement of Annex 46 EB 41, to secure CDM status for the project in parallel with its implementation.

# Question 2: Further clarification is required on how the DOE has validated the suitability of the input values to the investment analysis, as per the requirement of EB 38, paragraph 54 guidance.

#### **DNV's response:**

DNV has validated all the input values in accordance with the "Guidance of EB38 paragraph 54(c)" as described in the following steps:

#### Step 1: Assessment of the sources of the used input parameters:

All the input parameters used in the financial analysis at the moment of the investment decision are taken from the project Preliminary Design Report (PDR) developed in October 2004 by the "Hubei Province Jinlang Survey and Design Co., Ltd.", which is an independent and officially accredited entity. The PDR input parameters were verified and approved by Hubei Province Water Resource Ministry on the March 23, 2005 and can thus be considered information provided by an independent and recognized source.

<sup>&</sup>lt;sup>3</sup> Start Construction permit issued by Hubei Province Water Resource Ministry on the 30th April 2005

<sup>&</sup>lt;sup>4</sup> PDD Development Contract signed between the project owner and Beijing Tianqing Power International CDM Consulting CO., Ltd on the 15th June 2005

<sup>&</sup>lt;sup>5</sup> Cooperation Agreement for CDM application signed between the project participant and Beijing Tianqing Power International CDM Consulting CO., Ltd on the 12th October 2005

<sup>&</sup>lt;sup>6</sup> CDM ERPA signed between the Project Owner and ENEL Trade SpA on the 18 January 2006

<sup>&</sup>lt;sup>7</sup> <u>http://www.tqcdmchina.com/cn/html/NewsView.asp?ID=93</u>

<sup>&</sup>lt;sup>8</sup> Application Form for Administrative Consent presented by the Project owner on the 7<sup>th</sup> August 2006

<sup>&</sup>lt;sup>9</sup> http://cdm .ccchina.gov.cn/web/NewsInfo.asp?NewsId=1460

## Step 2: Confirmation that the values used in the PDD and investment analysis are fully consistent with the PDR:

DNV compared the input parameters for the financial analysis included in the PDD with the parameters stated in the PDR, and was able to confirm that the values applied are consistent with the values stated in the PDR. The average annual power generation and the net electricity supply to the grid reported in the PDR were incorrect. Hence, these parameters were recalculated and the correct values were reported in the reviewed PDD.

## Step 3: Assessment of the period of time between the finalization of the PDR and the investment decision:

The PDR was completed in October 2004 in the same period when the decision of the project owner to proceed with the project activity was taken (i.e. the project starting date is October 31, 2004). Given the period of time between the approval of the PDR and decision to proceed with the project activity, it is unlikely in the context of the project that the input values would have materially changed. Thus, it is reasonable to assume that the PDR has been the basis of the decision to proceed with the investment in the project.

### Step 4: Cross check of the main input parameters used in the financial analysis with the parameters used by other similar projects:

The input parameters used in the financial analysis were compared with the data reported for other similar proposed CDM projects in China, e.g. in the same province. The investment cost per MW, the percentage of operation and maintenance costs relative to total project investment costs of the proposed project activity are aligned with the other analyzed projects. DNV has also concluded that the tariff used by the project participant is conservative, as it is the highest tariff of the projects analysed. The project load factor has been accepted, even if lower than the other factors, as it has been substantiated with official hydrological data relative to a historical series of 43 years (1959-2002) that is included in the approved PDR verified by DNV. Consequently, DNV confirms that the input parameters used in the financial analysis are reasonable and adequately represent the economic situation of the project.

Further information verified by DNV relative to the Total Investment Costs and the Grid price can be found in the project participant's response.

Question 3: The data used to calculate the grid emission factor in the PDD submitted for registration was not available at the commencement of validation (June 2007). The PP and DOE are therefore requested to amend the grid emission factor using data, which was available at this date and provide the corresponding calculation of the emission reductions.

#### **DNV's response:**

The PDD was published for the global stakeholder's consultation on 27 June 2007. This date is defined as the commencement of the validation. On 27 June 2007, the following sources were available for calculating the grid emission factor of the project:

- China Electric Power Yearbook 2004 2006 (published November 2006)
- China Energy Statistical Yearbook 2004 2006 (published April 2007)
- 2006 IPCC guidelines (final version published end of 2006)

The initial PDD published for global stakeholder consultation on 27 June 2007 used vintage data up to the year 2004, whereas data from the year 2005 was already available. With reference to the clarification request raised by DNV in the validation report submitted for registration, the project proponent updated the calculations using the most recent data available at the time of web-hosting the PDD.

Although the PDD submitted for registration refers to the Bulletin on Baseline Emission Factors of China's Grid, renewed by the Director Office of National Climate Change Coordination of NDRC (Chinese DNA) on 9 August 2007, the emission factor calculations for the proposed project activity deviate from this source in using the original data published in the China Energy Statistical Yearbook, China Electric Power Yearbook and IPCC 2006.

Furthermore, a coal consumption efficiency of 336.66 gce/kWh (i.e. efficiency of 36.53%), was used to calculate the build margin emission factor of the project activity. This value was published by the Chinese government in December  $2006^{10}$  and was the most recent at the time the validation started and more conservative than the value published by Chinese DNA on 9 August 2007.

Thus, DNV is able to confirm that the PDD sent for registration was hence per DNV's request and CDM requirements, using the most recent data available at the time of the commencement of validation.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully for DET NORSKE VERITAS CERTIFICATION AS

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<sup>&</sup>lt;sup>10</sup> http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File1051.pdf