TÜV SÜD Industrie Service GmbH · 80686 Munich · Germany

Industrie Service

Choose certainty.
Add value.

DAP-PL-2885.99
DAP-IS-2886.00
DAP-PL-3089.00
DAP-PL-2722
DAP-IS-3516.01
DPT-ZE-3510.02
ZLS-ZE-219/99
ZLS-ZE-246/99

Your reference/letter of	Our reference/name	Tel. extension/E-mail	Fax extension	Date/Document	Page
	IS-CMS-MUC/ Caiyang Wu	+49 89 5791-2841 Caiyang.Wu@tuev-sued.de	+49 89 5791-2756	2009-03-13	1 of 2

Request for Review

Dear Sirs,

Please find below the response to the review formulated for the CDM project with the title "*Huadian Ningxia Ningdong Yangjiayao 45MW Wind-farm Project*" with the registration number 1592. In case you have any further inquiries please let us know as we kindly assist you.

Yours sincerely,

Thomas Kleiser
Carbon Management Service

Enclosures

Annex: Verification Certificates of Potential and Current Transformers

Industrie Service

Response to the CDM Executive Board

Issue 1

The DOE is requested to clarify how it verified that the readings of meter M1, owned by the PP, are same as readings of grid meter M2, considering that the grid meter reading must be taking transmission losses and transformer losses into account and thus should be lower than the reading of M1.

Response by TÜV SÜD

According to the methodology the electricity supplied to the grid has to be metered. In compliance with the methodology and as indicated in the registered monitoring plan, monitoring report and verified on-site, meter M1 is the main meter installed. Meter M2 is the backup meter installed at the high voltage side of the 110 kV Yongli Substation, used when the readings of M1 are beyond the allowable error. During the monitoring period there was no malfunction happening to M1, the calibration certificate (IRL 6) of M1 was verified on-site as well. Thus all data for the calculation of the emission reduction are derived from M1, as described in the verification report and there is no necessity to check the readings of M2. Hence, it has only been checked if M2 would be available in case of malfunction of M1. This could be confirmed.

Issue 2

The DOE is also requested to verify the magnification factor of 88000 applied on M1 meter readings for calculating the electricity imported and exported in KWh.

Response by TÜV SÜD

According to the Technology & Management Regulations for Power Metering Devices (DL/T448-2000), system class I is required for power plants in counting net electricity supply to the grid. As per the standard, the project applied equipment accuracy as active electric power meter in 0.2S, potential transformer in 0.2 and current transformer in 0.2S separately. Verification certificates of all meters and transformers were issued by the authorized unit - Calibration Centre of Electricity Metering Equipments, NingXia Electric Power Company, on 5 November 2007 and checked by the audit team. It is confirmed all equipments certificates are still valid. In the verification certificate of the voltage transformer, it is documented that the rated primary voltage is 110 kV and the rated secondary voltage is 100 V; thus the magnification factor for voltage is 110 kV / 100 V = 1100. In the verification certificate of the current transformer, it is documented that the rated primary current is 400 A and rated secondary current is 5 A; thus the magnification factor for current is 400 A / 5 A = 80. And the magnification factor applied on M1 meter readings is only related to the voltage and current, not to the time. Hence the magnification factor for net electricity supply is the factor of voltage times current, i.e. 1100 * 80 = 88 000. In conclusion, the DOE can confirm the magnification factor of 88,000 applied on the M1 meter readings is appropriate and plausible. Therefore the net electricity calculation is accurate.