




CDM: Form for submission of requests for deviation prior to submitting request for issuance

(To be used by the DOE for requesting a deviation prior to submitting request for issuance)

Name of the entity (DOE) submitting this form	TÜV NORD
Project Ref./Title of the project activity	886: Anguoer Hydropower Project in China
Title/subject of deviation	Request for deviation from the monitoring plan due to joint meter reading
Specify the monitoring period for which the request is valid	30 Mar 2010 - 17 Jun 2010
Date and signature for the DOE	2012-02-07 Rainer Winter 

Please use the space below to describe the deviation and substantiate the reason for requesting a deviation from provisions of registered monitoring plan.

During on-site visit of the fourth verification period the DOE observed that the project's situation deviated from the provision of the registered monitoring plan. Due to the fact that two more power plants were connected to the grid and electricity was measured via main meter M3, the way to calculate EGy of the proposed project must change. This joint metering requires a deviation to the monitoring plan only covering the fourth monitoring period.

The detailed information about the deviation is as follows:

1 ■ Metering

The diagrams which are indicated below show the situation in the registered PDD and the actual situation with the proposed deviation of the 4th monitoring period:

Figure 1: The situation in the registered PDD Figure 2: The situation of the 4th monitoring period

Monitoring in the registered PDD

The Figure 1 indicates the project's monitoring situation in the registered PDD, which covers the first and the second monitoring periods. For the metering purpose, the main meter (M3) was installed in the Hezuo 110kV substation for recording electricity data which were adopted to issue payments and the meter (M2) was installed at high voltage side of Anguoer transformer station for backing-up purpose.

The accuracy of meters is listed in the table 1:

Table 1:

M3 ■ M2

Accuracy ■ 0.2S ■ 0.2S

The net electricity is determined as stated in the table 2:

Table 2:

$1ESy - 2EDy - 3EGy = ESy - EDy$

Implementation in the registered PDD ■ $M3_{export} - M3_{import} - M3_{export} - M3_{import}$

(1ESy: Power supplied from the project activity to the grid; 2EDy: Power delivered from the grid to the project activity; 3EGy: Net quantity of electricity supplied to the grid)

Monitoring in the fourth monitoring period

During the on site visit for the fourth periodic verification, TÜV NORD has observed a deviation compared to the monitoring plan as per the registered PDD and the 1st and 2nd verification.

For the 4th monitoring period, the meter M3, M4 and M1 were used as the main meters. This has been assessed as the most plausible and accurate way of determining the net electricity for the proposed project activity.

The Project B was connected to the grid on 2009-01-19 via transformer station of the proposed project through 1116 Ansai line as per contract between the grid operator Gansu Electrical Power Company and the project owner, which is the same project owner as of the proposed project, dated 2008-12-16. The meter M1 is defined as the main meter to issue the electricity balance sheet and payment for the hydropower project B.

The Project A which is owned by a different entity was connected to the grid in May 2009 via Hezou Substation through 1117 Anhe line according to the grid company notification: Gan Dian Si Ji [2006] No.158. The meter M4 is located at the Duosongduo Transformer Station and defined as the main meter for the hydropower project A.

It could be verified by TÜV NORD that there was no obstacle to calculate the emission reductions of the proposed project due to the reason that the grid company was responsible for providing electricity balance sheet by deducting M4's data from M3's. M3 is the joint meter for the proposed project, project A and project B.

All the meters were calibrated annually according to the state's official guidance DT/L448-2000 to ensure the accuracy to record data which were used to calculate the proposed project's emission reductions. By checking the calibration certificates, TÜV NORD confirmed that there appeared no malfunction of the main meters (M3, M4 and M1) for the fourth monitoring period and they were all in a normal and good operation condition. The back up meter M2 was not used in the fourth monitoring period. Detailed information of the meters' calibration are stated as following:

Table 3:

Calibration Date ■ Valid to

M3 ■ 2010-03-04 ■ 2011-03-03

M2 ■ 2010-03-04 ■ 2011-03-03

M1 ■ 2009-09-21 ■ 2010-09-20

M4* ■ 2010-03-27 ■ 2011-03-26

(■ Note: By checking the electricity balance sheet which was issued by the grid company, TÜV NORD confirmed that the project A was connected to the grid in May 2009)

The meters' accuracy are listed in the table 4:

Table 4:

M3 ■ M2 ■ M1 ■ M4

Accuracy ■ 0.2S ■ 0.2S ■ 0.2S ■ 0.2S

The way to calculate the net quantity of power supplied by the project was changed subsequently. The situation after the deviation (actual implementation covering the 4th monitoring period) is demonstrated in the table 5 below:

Table 5:

$1ESy - 2EDy - 3EGy = ESy - EDy$

Actual implementation covering the 4th monitoring period ■ $M3_{export} - M4_{export} - M1_{export} - M3_{import} - M4_{import} - M1_{import}$ ■ $(M3_{export} - M4_{export} - M1_{export}) - (M3_{import} - M4_{import} - M1_{import})$

(1ESy: Power supplied from the project activity to the grid; 2EDy: Power delivered from the grid to the project activity; 3EGy: Net quantity of electricity supplied to the grid)

Please use the space below to describe and substantiate the assessment of the DOE that the deviation does not require a revision of monitoring plan or the changes from the project activity as described in the registered project design document.

The deviation which covers the 4th monitoring period does not require a revision of monitoring plan or the changes from the project activity as described in the registered project design document.

By means of on site visit and interviewing the project's technicians and the general manager, the DOE found out that the request for deviation is only applicable till 2010-06-17, in which the fourth monitoring period was from 2010-03-30 to 2010-06-17. After 2010-06-17, the monitoring system was changed permanently which was confirmed through on site checking and interviewing. As indicated in the figure 2 the meter M3, which is used to record generated electricity from project A, the proposed project (0886) and project B, located at Hezuo 110kV substation. However, it could be confirmed that the change in the meter arrangement is not permanent by checking the grid company's notification: Gan Dian Si Ji [2006] No.158. The document provides information that there will be a new substation which is named Duohe 330kV substation. It is further stated that this substation will be built and this CDM project no. 0886 will be connected to this newly-built substation (not to the old Hezuo 110kV substation) when it will be put into operation. As per the notification letter the main meter of this CDM project no. 0886 will be located in this newly-built substation. The actual implementation as stated above was checked and verified by the verification team through on site visit on 2011-09-14 to confirm that Duohe 330kV substation has been already put into operation. In addition, the verification team observed further modifications in the meter arrangement during the site visit of the 5th monitoring period and is already in the process of carrying out the request for revision of the morning plan of the 5th monitoring period, which means the deviation of the 4th monitoring period is not a permanent change.

Please use the space below to describe the impact of the deviation on the estimates of the emissions reductions for the proposed project activity with the use of approved methodology as existing and with the deviation. Please substantiate the estimations with relevant and verifiable data.

With the deviation, meter M3, M4 and M1 were used as the main meters for the proposed project instead of only using meter M3 as in the registered PDD. The accuracies of M1 and M4 are on the same accuracy level as the meter M3 which is 0.2S as stated in table 4.

Considering two more meters the way to calculate net electricity fed into the grid by the proposed project changed accordingly. Please refer to the table below which clarifies the differences.

$$1ESy - 2EDy - 3EGy = ESy - EDy$$

$$\text{Registered PDD} = M3_{\text{export}} - M3_{\text{import}} - M3_{\text{export}} - M3_{\text{import}}$$

$$\text{Actual implementation covering the 4th monitoring period} = M3_{\text{export}} - M4_{\text{export}} - M1_{\text{export}} - M3_{\text{import}} - M4_{\text{import}} - M1_{\text{import}} - (M3_{\text{export}} - M4_{\text{export}} - M1_{\text{export}}) - (M3_{\text{import}} - M4_{\text{import}} - M1_{\text{import}})$$

(1ESy: Power supplied from the project activity to the grid; 2EDy: Power delivered from the grid to the project activity; 3EGy: Net quantity of electricity supplied to the grid)

As already justified above TÜV NORD could confirm that the meters do have the same accuracy and are under responsibility of the grid operating company. Hence, the necessary data to calculate the emission reductions is available and provided from a reliable source, the grid company. It could be further confirmed that all meters are duly calibrated.

It is confirmed that the new calculation approach is fully in line with the applied methodology.

TÜV NORD concludes that the proposed deviation did not have impacts on the determination of the emission reductions and is the most suitable way to calculate the emission reductions in the context of the observed deviation during the site visit.

Link to the monitoring report
https://cdm.unfccc.int/Projects/DB/DNV-CUK1169627275.29/iProcess/RWTUV1312275743.18/view
If necessary, list attached public files containing relevant information which is not available through the above link
0886 4 F-CDM-DEV-ISS