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#### CLEAN DEVELOPMENT MECHANISM PROJECT DESIGN DOCUMENT FORM (CDM-PDD) Version 03 - in effect as of: 28 July 2006

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# **B.7** Application of the monitoring methodology and description of the monitoring plan:

(Copy this table for each data and parameter)	
Data / Parameter:	
	Electricity quantity $(EG_y)$
Data unit:	MWh
Description:	Electricity delivered to the grid
Source of data to be	Measured
used:	
Value of data applied	Estimation of annual electricity generation delivered to grid: 392,000MWh.
for the purpose of	
calculating expected	
emission reductions in	
section B.5	
Description of	Electricity supplied to the grid by Youshuishidi power station will be
measurement methods	measured by meter(s) and will be recorded on a monthly basis. For a detailed
and procedures to be	description of the measurement methods see B.7.2
applied:	
QA/QC procedures to	According to national standards (see B.7.2 for the exact standard), meters
be applied:	will be calibrated periodically. Data measured by meters will be cross
	checked against receipts from the grid company. The meter(s) will be read
	frequently both by the project developer and the grid company. For a
	detailed description of the QA/QC procedures see B.7.2
Any comment:	

Data / Parameter:	
	Area submerged
Data unit:	$m^2$
Description:	Surface area of the reservoir at maximum level
Source of data to be	Project Developer
used:	
Value of data applied	9,700,000
for the purpose of	
calculating expected	
emission reductions in	
section B.5	
Description of	The area will be monitored based on topographical data and the height of the
measurement methods	dam
and procedures to be	
applied:	
QA/QC procedures to	
be applied:	
Any comment:	Monitored once at start of the project. Archived data will be kept during the
	crediting period. Value used for the for the purpose of calculating expected
	emission reductions in section B.5 is from the approved feasibility study

Please refer to Annex 4 for further background documentation



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# **B.7.2** Description of the monitoring plan:

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This section details the steps taken to monitor on a regular basis the GHG emissions reductions from the Youshuishidi Hydroelectric Project in China.

The monitoring set up for this project has been developed to ensure that from the start, the project is well organised in terms of the collection and archiving of complete and reliable data.

1. Monitoring organisation

Prior to the start of the crediting period, the organisation of the monitoring team will be established. Clear roles and responsibilities will be assigned to all staff involved in the CDM project and a single CDM Manager will be nominated. The CDM Manager will have the overall responsibility for the monitoring system on this project.

All other CDM monitoring staff will have clearly defined roles and responsibilities. The CDM Manager will manage the process of training new staff, ensuring trained staff perform the monitoring duties and that where trained monitoring staff are absent, the integrity of the monitoring system is maintained by other trained staff.

A formal set of monitoring procedures will be established prior to the start of the project. These procedures will detail the organisation, control and steps required for certain key monitoring system features, including:

- a) CDM staff training
- b) CDM data and record keeping arrangements
- c) Data collection
- d) CDM data quality control and quality assurance
- e) Equipment maintenance
- f) Equipment calibration
- g) Equipment failure contingencies

See Annex 4 for a description and the scope of these procedures. The procedures will be agreed and signed off by the Chongqing Wujiang Industry (Group) Co., Ltd and EcoSecurities. Any changes to procedures will need to be agreed by both parties. The CDM Manager will be responsible for ensuring that the procedures are followed on site and for continuously improving the procedures to ensure a reliable monitoring system is established.

All staff involved in the CDM project will receive some relevant training from the project





consulting company laid down in training procedures agreed on by the project developer and EcoSecurities (further details of the training procedure is provided in Annex 4). Records of trained CDM staff will be retained by the Project Developer. The CDM Manager will ensure that only trained staffs are involved in the operation of the CDM monitoring system.

2. Monitoring equipment and installation

Given the emission factor is calculated ex-ante and according to the Monitoring Methodology ACM0002, the only data to be monitored is electricity supplied to the grid by the project (detailed in B.7.1).

Metering of Electricity Supplied to the Grid

The location of the meter measuring the electricity delivered to the grid by the project will be on site at the power plant. The electricity will be delivered to the local grid operator and then transmitted to the Guizhou Power Grid Company<sup>13</sup>.

The local grid company provides the project developer with a record of the total amount of electricity generated by the Youshuishidi project and supplied to the grid. This will form the electricity supply figure on the purchase receipt.

To provide a cross-check of the CDM data, cross-check meters will be installed in addition to the revenue meter. These meters will be located at the generation site, measuring the electricity generated from the project. Allowing for transmission/transformation losses and internal use, the meters will provide a useful cross check of the grid company's meter.

Electricity meters should meet the relevant local standards at the time of installation. Before the operation of the project, meters should be calibrated by the qualified third party. Records of the meters (type, make, model and calibration documentation) will be retained by the project developer.

# Quality Assurance

The project developer will permit the third party who has the appropriate qualification to carry out the calibration to ensure the measurement accuracy of the main meters. The meters located at the power station are calibrated every year by the qualified third party, . For further details on the CDM data quality control and quality assurance see the CDM Monitoring System Procedures in Annex 4.

<sup>&</sup>lt;sup>13</sup> See the grid connection agreement between Chongqing Wujiang Power Generation (Group) Co., Ltd and Tongren Power Supply Branch Company of Guizhou Power Grid Company.



Within 10 days after the following circumstances, all the meters installed should be tested by an accredited monitoring inspection organisation jointly appointed by the project developer and the grid company:

- a) the error of revenue and cross check meters exceed the allowable range specified in the applicable standard
- b) the meter is repaired or replaced due to the faults of the meter parts.

3. Data and records management

Each month the monitoring data needs to be filed electronically. The electronic files will be saved on CD and on computers. The project developer needs to keep electricity sale and purchase receipts or invoices.

All written documentation such as maps, drawings, the EIA and the Feasibility study for the Youshuishidi power station, should be stored and should be available to the verifier so that the reliability of the information may be checked.

In order to make it easy for the verifier to retrieve the documentation and information in relation to the project emission reduction verification, the project developer should provide a document register. The document management system will be part of the existing system in the technology department of the company.

The dedicated CDM Manager of the project developer is responsible for checking the data (according to a formal procedure) and the CDM Manager will be responsible for managing the collection, storage and archive of all data and records. A procedure will be developed to manage the CDM record keeping arrangements.

All the data shall be kept until two years after the end of the crediting period.

For details of the operational and management structure used for the monitoring of the project activity, please see Annex 4.