B.7.1. Data and parameters monitored:

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Data / Parameter:	$NCV_{fuel,y}$
Data unit:	TJ/ton
Description:	Calorific Value of fuel used in Clinker Production lines
Source of data to be used:	Monitoring record
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Refer to Annex 3
Description of measurement methods and procedures to be applied:	Direct measurement
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	$F_{P,y}$
Data unit:	TJ
Description:	Average annual energy (fuel) consumption of clinker making process after project implementation
Source of data to be used:	Monitoring record
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Refer to Annex 3
Description of measurement methods and procedures to be applied:	Direct measurement and calculation
QA/QC procedures to be applied:	
Any comment:	The Quantity of fuel consumption ($Q_{fuel,y}$) and Calorific Value of fuel ($NCV_{fuel,y}$) will be measured and used to calculate

	$F_{P,y}$ as below: $F_{P,y} = Q_{fuel,y} \times NCV_{fuel,y}$

Data / Parameter:	$O_{clin\,ker,y}$
Data unit:	ton
Description:	Average annual production of clinker after project implementation
Source of data to be used:	Monitoring record
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Refer to Annex 3
Description of measurement methods and procedures to be applied:	Direct measurement
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	$EG_{CP,y}$
Data unit:	MWh
Description:	Quantity of electricity supplied to cement plant
Source of data to be used:	Monitoring record
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Tonglu County: 61,929 MWh Jiande City: 59,880 MWh Guangde County: 57,540 MWh
Description of measurement methods and procedures to be applied:	Direct measurement
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	$OXID_{fuel,y}$
Data unit:	%
Description:	Oxidation ratio of fuel used in Clinker Production
Source of data to be used:	2006 IPCC Guidelines: page 1.23
Value of data applied for the purpose of calculating expected emission reductions in section B.5	100%
Description of measurement methods and procedures to be applied:	Deriving from official statistical data
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	$EF_{CO2,fuel,y}$
Data unit:	tCO_2/ton
Description:	Emission factor of fuel used in Clinker production.
Source of data to be used:	Monitoring record
Value of data applied for the purpose of calculating expected emission reductions in section B.5	Refer to Annex 3
Description of measurement methods and procedures to be applied:	Direct measurement and calculation.
QA/QC procedures to be applied:	The carbon content of fuel ($EF_{C,fuel,y}$) will be measured and used to calculate $EF_{CO2,fuel,y}$ as below: $EF_{CO2,fuel,y} = EF_{C,fuel,y} \times 44/12$
Any comment:	

B.7.2. Description of the monitoring plan:

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The baseline scenario of the project activity has been identified in accordance with AM0024 as to continue import the equivalent amount of electricity from ECPG. Therefore, the monitoring plan was designed as required by AM0024.

1 Guideline

Monitoring plan is a guide on the arrangement of monitoring tasks and schedules. Monitoring personnel should carry out monitoring activities in accordance with the monitoring plan and ensure effective monitoring. The monitoring plan should ensure that monitoring information is real and measurable so as to provide DOE with real, reliable and transparent emission reduction calculation data. The monitoring planning should also ensure that the emission reductions are real and solid to CERs buyers.

2 Monitoring

The main contents of the monitoring:

- $EG_{CP,y}$ Quantity of electricity supplied to cement plant;
- $O_{clin\,ker,y}$ Average annual production of clinker after project implementation;
- $F_{P,y}$ Average annual energy (fuel) consumption of clinker making process after project implementation;
- $NCV_{fuel,y}$ Calorific Value of fuel used in Clinker Production lines;
- $EF_{CO2,fuel,y}$ Emission factor of fuel used in Clinker production.

The Quantity of fuel consumption ($Q_{fuel,y}$) and Calorific Value of fuel ($NCV_{fuel,y}$) will be measured and used to calculate $F_{P,y}$ as below:

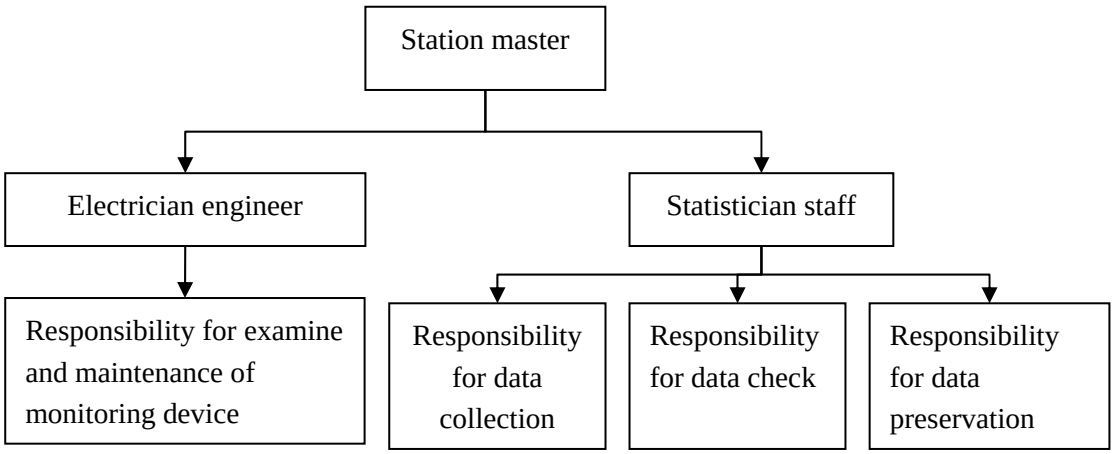
$$F_{P,y} = Q_{fuel,y} \times NCV_{fuel,y}$$

The carbon content of fuel ($EF_{C,fuel,y}$) will be measured and used to calculate $EF_{CO2,fuel,y}$ as below:

$$EF_{CO2,fuel,y} = EF_{C,fuel,y} \times 44/12$$

3 Management system

The power station will set up a complete data management system, and the structure is demonstrated in the following graph:



4 Monitoring device and its installation

The meter(s) used to measure the Electricity Generated, Auxiliary Electricity by the project and Electricity supplied to cement plant will be in accordance with the National Guidelines （DL/T448-2000 version） for accuracy and reliability. The meters accuracy rate shall be 1.0. The meters will be maintained by the project entity according the National Guidelines （DL/T448-2000 version）.

The quantity of fuel consumption and clinker production will be measured by the electric balance; the data of fuel's calorific Value will be measured by the heat measuring equipment; the Emission factor of fuel will be measured according the National Guidelines (GB483-87). The electric balance and heat measuring equipment will be installed and maintained according the Operation Explanation.

5 Data collection and calculation

- The calculation of expected emission reductions will accord to quantity of electricity supplied to cement plant. The difference between quantity of electricity generated and quantity of electricity consumed by the project activity will be the back-up.
- The quantity of fuel consumption and clinker production from the monitoring record of project entity will be used to calculate.
- The data of fuel's calorific Value and emission factor from the record of lab will be used to calculate.
- The monitoring records of project entity will used for verification by DOE.

6 Calibration

Calibration will be carried out according the National standard (JJG596-1999) by the independent and authoritative organizations, Bureau of Quality and Technical Supervision in Tonglu County, Bureau of Quality and Technical Supervision in Jiande County and Bureau of Quality and Technical Supervision in Guangde County after which the meters are sealed. The frequency of the calibration will be once a year at least.

The relevant instruments should be calibrated, repaired and replaced if the reading error of instruments exceeds the permitted error range. And meter inspections are carried out with all parties to the meter reading being present to witness the reading.

The electric balance and heat measuring equipment will be calibrated by project entity according to the Operation Explanation. The equipments used to measure the Emission factor of fuel will be calibrated by the local Bureau of Quality and Technical Supervision.

7 Recording and preservation of relevant data

The monitoring data will be daily recorded, and then saved in the video disc. The writing of monitoring data must be standard and can not be optionally altered. If the monitoring data assuredly need be corrected, it will be modified after being approved by the vice power station master. The person who modified the monitoring data must make a signature in the place where monitoring data will be modified. In reference column, the reason why the monitoring data are modified and modifying data will be written, and the signature also will be made.

The authenticity, veracity, timeliness and standardization of the monitoring data should be checked by the vice power station master. If something wrong is found, it will be corrected immediately. Based on daily monitoring report, the menstrual monitoring report will be formed. And it will be submitted to the power station master, who will verify this menstrual monitoring report.

All monitoring data will be preserved throughout the whole 10 years crediting period and the following two years. Necessary back-up of monitoring data will be done at regular intervals.

8 Quality control system for monitoring data

Once the reading error of instruments exceeds the permitted error range or the instrument is found to be malfunctioning, the project entity should inform the related bureau of quality and technical supervision, and the following action should be taken under the local bureau of quality and technical supervision: (1) the measurement data of the meter that need be repaired, calibrated or replaced should be copied; (2) the project entity was responsible for examining for the meters, and the local bureau of quality and technical supervision was responsible for detection, calibration and lead sealing of the meters.

Under normal condition, the project entity was responsible for operation and maintenance of the meters in the WHR captive power stations.

9 Training of relevant personnel

In order to ensure the proper installation and smooth-running of the WHR captive power station, the project entity has planned to invite technical and management personnel for construction and operation of the WHR captive power station. Plans were also made to train the staffs that are mostly recruited from the cement plant and know little about the WHR power station.

Before the WHR captive power stations start operating, personnel related to management, operation and maintenance of the power station will be sent for a two-month training course to a power company. All the trainees will take a test at the end of their training, those who passed it will receive qualification certificate and those who didn’t will have to be retrained and retested, and in case he fails the test again, he will not be qualified for positions in the power station.

After the WHR captive power stations become operating, the project entity will invite experts to train personnel related every year.