



Validation Opinion

For revised monitoring plan for registered CDM
project activity of

Liujiashan 10 MW Small Hydropower Project in Jiangxi Province in P. R. China

In accordance with Para. 57 of the modalities and
procedures for the CDM

Version 01, 2012-04-12

TÜV Rheinland (China) Ltd.

Project title:	Liujiashan 10 MW Small Hydropower Project in Jiangxi Province	
Reference No.:	1477	
Registration date:	10/04/2008	
Methodology:	AMS-I.D.version 10	
Annual average emission reductions:	Estimated: <u>222.07</u> tCO ₂ e/yr	
GHG reducing measure/technology:	displacing fossil fuel based grid power generation with renewable hydro energy	

TABLE OF CONTENTS

1. DESCRIPTION OF FINDING 4

2. ASSESSMENT OF CHANGE 4

3. ASSESSMENT PARA. 9(A),(B) AND (C) OF EB49 / ANNEX 28..... 4

4. CONCLUSION 5

Appendix A: References List

Appendix B: Certificates of Competence

1. Description of Finding

In line with the Section B.7 of the registered PDD, the location of the monitoring meters should be implemented as per monitoring plan in registered PDD. However, it was found during onsite verification and based on the power measurement regulation in the Power Purchase Agreement (PPA) /7/ and grid connection agreement /8/ that, the monitoring meter used for power measurement, billing and emission reductions calculation is located the substation instead of the project site, which is different with Section B.7 of the registered PDD as reflected in the following aspects:

2. Assessment of Change

• When the Changes Occurs

The meter was installed and put into use at the start of the project, which is before CDM registration.

• The difference compared to registered PDD

According to the registered PDD, the electricity delivered to CCPG by the Project will be continuously monitored through metering equipments installed in the project site. As verified onsite, the metering equipment is installed in the substation instead of the project site, which can also be evidenced by the PPA /7/ and Grid Connection Agreement /8/.

3. Assessment Para. 9(a),(b) and (c) of EB49 / Annex 28

In accordance with Procedures for Revising Monitoring Plans, the project participants shall implement the monitoring plan contained in the registered project design document. As discussion above, the electricity connection and installation of the electricity meters are inconsistent with the registered project design document. In this case, a revising of monitoring plan is requested and the revision of monitoring plan shall be assessed against *Para. 9(a), (b) and (c) of Procedures for revising monitoring plans in accordance with Para. 57 of the modalities for the CDM*. The validation team has assessed the revised monitoring plan with supporting evidence and the validation opinions have been summarized in the following table.

Requirements as per EB49 / Annex 28	Validation Opinion
Para. 9(a): The proposed revision of the monitoring plan ensures that the level of accuracy and completeness in the monitoring and verification process is not reduced as a result of the revision. The DOE shall, using objective evidence, assess the accuracy and completeness of each proposed revision to the monitoring plan including the frequency of measurements, the quality of monitoring equipment (e.g. calibration requirements, and	It can be confirmed that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision as the accuracy level of the gateway meter is 0.5, which is in compliance with the Technical administrative code of DL/T448 — 2000/9/. Calibration has been conducted annually by an authorized third party, calibration certificates have been

the quality assurance and quality control procedures).	verified by the audit team /10/.
Para. 9(b): The proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity. In cases where the proposed revision refers to a later version of the applied methodology, the DOE shall ensure that this application does not compromise the conservativeness in the monitoring and verification process and of the emission reduction calculations.	<p>The AMS-I.D.version 10 which applied in the registered PDD is still applied in the revision of monitoring plan.</p> <p>The verification team can confirm that the electricity delivered to CCPG by the Project is continuously monitored in accordance with the monitoring methodology AMS-I.D.version 10 during onsite visit and desk review /11/</p>
(c) The findings of previous verification reports, if any, have been taken into account.	<p>The meter location is indicated as “installed at the grid transfer station” in the Initial and 1st Verification Report for the Liujiashan 10 MW Small Hydropower Project in Jiangxi Province issued by DNV. However, no request of the revision of the monitoring plan was mentioned in the report, no FARs were issued.</p>

4. Conclusion

The electricity delivered to CCPG by the Project is still monitored properly and in accordance with the relevant industry regulation. Therefore, it is validation team's opinion that the change is not expected to affect level of monitoring completeness and verification process. The validation team is able to confirm the revision of monitoring plan as per document review in the below reference list. In line with the Para.3 of Procedures for revising monitoring plans in accordance with paragraph 57 of the modalities and procedures for the CDM, the DOE therefore request for approval to the revision of the monitoring plan for the proposed project.

Appendix A: Reference List

/1/	Cleanergy Investment Service (Beijing) Co., Ltd., Revised Monitoring Plan, 18/10/2011.
/2/	Registered PDD of the Liujiashan 10 MW Small Hydropower Project in Jiangxi Province, UNFCCC Ref No. 1477 http://cdm.unfccc.int/Projects/DB/TUEV-SUED1205920632.77/view
/3/	Initial and 1 st Verification Report for the Liujiashan 10 MW Small Hydropower Project in Jiangxi Province, DNV, Report number: 2009-1296, dated 06/01/2011
/4/	CDM Executive Board, CDM Validation and Verification Standard (Version 02.0)
/5/	CDM Executive Board, Approved Methodology AMS-I.D. "Grid connected renewable electricity generation" (version 10)
/6/	CDM Executive Board, Procedures for Revising Monitoring Plans in Accordance with Paragraph 56 of the Modalities and Procedures For the CDM, Version 02, Annex 28/EB49, 11 September 2009.
/7/	Power Purchase Agreement (PPA), Zixi county Electric Power Co. & Zixi Sanjiang Hydropower Co., Ltd, dated 01/09/2006 and 01/01/2010
/8/	Grid Connection Agreement, signed by Zixi county Electric Power Co. & Zixi Sanjiang Hydropower Co., Ltd, dated 02/06/2008
/9/	Technical administrative code of DL/T448—2000 of P. R. China. by state economic and trade commission, dated 01/01/2001
/10/	<p>10.1 Calibration Certificates of the main meter (DSSD106) and backup meter (DSSD178), issued by Energy Metrological Centre, Jiangxi Fuzhou Power Co., Ltd, Certificate No.: Dianneng 090420, dated 20/04/2009.</p> <p>10.2 Calibration Certificates of the main meter (DSSD106) and backup meter (DSSD178), issued by Energy Metrological Centre, Jiangxi Fuzhou Power Co., Ltd, Certificate No.: Dianneng G100418, dated 18/04/2010.</p> <p>10.3 Meter Change record of the Main meter, (Original meter number: DSSD106, After: DSSD331) issued by Zixi county Electric Power Co. & Zixi Sanjiang Hydropower Co., Ltd dated 16/10/2010</p> <p>10.4 Calibration Certificates of the main meter (DSSD331) and backup meter (DSSD178), issued by Energy Metrological Centre, Jiangxi Fuzhou Power Co., Ltd, Certificate No.: Dianneng G101024, dated 24/10/2010.</p>
/11/	Daily and Monthly Reading Records of Metering Systems from 11/07/2009 to 10/09/2011 provided by Zixi Sanjiang Hydropower Co., Ltd

Appendix B

Certificates of Competence

Qualification

Ma, Jiandong /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No. :
(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level: Lead Auditor
(Qualifikationsstufe)

External:
(Externer)

☐ ja

Add. reviewer: ☐ yes
(Zus-tzlicher Prüfer)

EAC Scopes:
(EAC Branchen)

CDM 01 – Energy industries (renewable – / non-renewable sources)
CDM 04 – Manufacturing industries

Add. qualification:
(zus. Qualifikation)

First Appointment: 2009-07-06
(Erstberufung)

Valid to:
(Gültig bis)

2012-07-05

Remarks:

CDM 01: valid for TA 1.1, 1.2
CDM 04: valid for TA 4.5 – Other WHR and Fuel Switch

Languages:

Experience Exchange

Date

Location

Remarks

Accredita

2010-12-21 Beijing GC CDM Auditor Experience Exchange, Beijing, 2010-12-21 to 23
United Nations Framework Convention on Climate Change

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next
Monitoring:
(n-chste
Beurteilung)

Remarks:

History of scope allocation

Date: 2009-07-07
Change: EAC CDM added

By: Manfred Brinkmann
Reason: Role as team leader for DNV confirmed for:
- China tumuxi small hydropower project
- Fujian jinjiang LNG power generation project
Other validation reports are either not (yet) available or show different role (GHG auditor: Henan sanmenxia, Lufeng; Trainee: Heilongjiang Hengdaishan).
Explanation for inconsistent information requested 2009-07-07.
M. Brinkmann

History

Created:	2009-06-15 14:39:04	Jiandong Ma/Shg/Chn/TUV
Modified:	2011-02-28 21:43:09	Jiandong Ma/Shg/Chn/TUV
	2011-02-28 21:42:13	Jiandong Ma/Shg/Chn/TUV
	2011-01-13 15:31:21 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-01-13 15:31:13 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-01-13 15:31:00 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-01-13 15:29:02 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-01-10 20:21:19	Jiandong Ma/Shg/Chn/TUV
	2009-10-23 22:23:33 ZE9	Manfred Brinkmann/Jpn/TUV

Qualification

Wenting, Tian /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:

(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level: Auditor
(Qualifikationsstufe)

External:
(Externer)

☐ ja

Add. reviewer: ☐ yes
(Zus-tzlicher Prüfer)

EAC Scopes:
(EAC Branchen)

CDM 01 – Energy industries (renewable – / non-renewable sources)
CDM 13 – Waste handling and disposal

Add. qualification:
(zus. Qualifikation)

First Appointment: 2011-12-01
(Erstberufung)

Valid to: 2014-11-30
(Gültig bis)

Remarks: Valid for TA1.2
Valid for TA13.1

Languages: Chinese
English

Experience Exchange

Date

Location

Remarks

Accredita

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next
Monitoring:
(n-chste
Beurteilung)

Remarks:

[View](#) / [Edit Monitoring](#)

History of scope allocation

Date: 2011-12-17

Change: EAC CDM added
By: Praveen Urs
Reason:

Date: 2011-12-05
Change: EAC CDM added
By: Manfred Brinkmann
Reason: Valid for TA1.2

History

Created:	2011-09-01 11:25:49	Patty Tian/Shg/Chn/TUV
Modified:	2011-12-17 12:46:23	Praveen Urs/Chn/TUV
	2011-12-05 20:22:49 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-12-05 20:22:48 ZE9	Manfred Brinkmann/Jpn/TUV
	2011-09-01 11:26:10	Patty Tian/Shg/Chn/TUV

Qualification

Tang, Walter /

Emission Trading

United Nations Framework Convention on Climate Change

Auditor No.:

(AuditorenRegNr)

Appointed:
(Zugelassen)

☒ ja

Qualification Level: Lead Auditor
(Qualifikationsstufe)

External:
(Externer)

☐ ja

Add. reviewer: ☐ yes
(Zus-tzlicher Prüfer)

EAC Scopes:
(EAC Branchen)

CDM 01 - Energy industries (renewable - / non-renewable sources)
CDM 02 - Energy distribution
CDM 03 - Energy demand
CDM 13 - Waste handling and disposal
CDM 04 - Manufacturing industries

Add. qualification:
(zus. Qualifikation)

First Appointment: 2011-10-11
(Erstberufung)

Valid to: 2015-09-11
(Gültig bis)

Remarks:

TA 1.1, 1.2, 2.1, 2.2, 3.1 Direct work experience.
TA 4.3, 4.5, 13.1 based on the projects registered before
17th March 2011 as per the Annex D para 5 of the
Accreditation Standard

Languages:

Chinese simplified
English

Experience Exchange

Date

Location

Remarks

Accredita

Monitoring

Latest Monitoring:
(letzte Beurteilung)

Next
Monitoring:
(n-chste
Beurteilung)

Remarks:

History of scope allocation

Date: 2012-02-13
Change: EAC CDM added
By: Praveen Urs
Reason:

Date: 2012-02-13
Change: EAC CDM, CDM, CDM, CDM added
By: Praveen Urs
Reason:

History

Created:	2011-12-06 17:00:51	Walter Tang/Chn/TUV
Modified:	2012-02-13 20:00:10	Praveen Urs/Chn/TUV
	2011-12-06 17:01:30	Walter Tang/Chn/TUV