TÜV Rheinland®

TÜV Rheinland (China) Ltd. (TÜV Rheinland)

VERIFICATION REPORT

Verification of the Joint Implementation Large-scale Project IMPLEMENTATION OF ARC FURNACE STEELMAKING PLANT "ELECTROSTAL" AT KURAKHOVO, DONETSK REGION

ITL Project ID: UA1000181

Initial and first periodic verification:
01/08/2011 – 31/07/2012

Report No. 01 998 9105071613 – VR4
Revision No. 02

Customer: Global Carbon B.V.

VERIFICATION REPORT

Date of first issue: 11/09/2012	Project No: 01 998 9105071613 ITL Project ID: UA1000181
Executor: TÜV Rheinland (China) Ltd. (TÜV Rheinland)	Organizational unit: TÜV Rheinland Ukraine Ltd. Technical Competence Center
Customer: Global Carbon B.V.	Client ref.: Natallia Belskaya

Summary:

TÜV Rheinland (China) Ltd. (TÜV Rheinland) has performed the initial and first periodic verification of emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region (ITL Project ID UA1000181) for the period from 01/08/2011 till 31/07/2012.

The purpose of verification is to assess the reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks generated by a JI LSC project and reported by the project participants through the monitoring report in accordance with paragraph 37 of the JI guidelines.

In our opinion, the emission reductions reported through the monitoring report, version 2.0 dated 25/10/2012 are fairly stated and are accurate and free of material errors, omissions, or misstatements.

During the monitoring period the project has been implemented in accordance with the project design document version 2.0 dated 27/05/2010.

The emission reductions were calculated correctly on the basis of the approved monitoring plan contained in the project design document version 2.0 dated 27/05/2010.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) is able to verify that the emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region during the period from 01/08/2011 till 31/07/2012 amount to 417 740 tonnes of CO_2 equivalent.

Report No.: 01 998 9105071613 – VR4	Subject Group: JI
Project title: Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region	
Work carried out by: Dr. Valery Yakubovsky – Team Leader, Technical Competence Center Director; Ganna Zadnipriana – Auditor; Dmytro Rakovich – Trainee.	
Work verified by: Dr. Lixin Li – Technical Reviewer; Mr. Lakshman Prasad – TR Technical Expert	TÜV Rheinland (China) Ltd. (TÜV Rheinland)
Verification Report approved by: Dr. Manfred Brinkmann – Accredited Independent Entity Operational manager	

Date of this revision:	Revision No.:	Number of pages:
30/10/2012	02	**38**

Abbreviations

CO_2	Carbon Dioxide
AIE	Accredited Independent Entity
ANE	Authorized national entity
BE	Baseline Emission
CAR	Corrective Action Request
CL	Clarification Request
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Greenhouse Gas
I	Interview
ITL	International Transaction Log
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LoA	Letter of Approval
MoV	Means of Verification
MP	Monitoring Plan
OSV	On Site Visit
PDD	Project Design Document
PE	Project Emissions
t	tonne
SS	Stakeholders survey
UNFCCC	United Nations Framework Convention on Climate Change

TABLE OF CONTENTS **Page**

1 VERIFICATION OPINION

TÜV Rheinland (China) Ltd. (TÜV Rheinland) has performed the initial and first periodic verification of the emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region (ITL Project ID UA1000181) for the period from 01/08/2011 till 31/07/2012.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of emission reductions generated by the project.

It is responsibility of TÜV Rheinland (China) Ltd. (TÜV Rheinland) to express an independent verification opinion - conclusion on the verified amount of emission reductions generated by the project and reported by the project participants through the monitoring report, version 2.0 dated 25/10/2012.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) has assessed the monitoring report on the basis of the monitoring plan contained in the registered project design document version 2.0 dated 27/05/2010 and the monitoring report version 1.1 dated 28/08/2012.

The verification included the assessment of:

- project implementation in accordance with the project design document (PDD);
- compliance with the monitoring plan;
- calculation of emission reductions and expression of a conclusion with a reasonable level of assurance about whether the reported emission reductions data are accurate and free of material errors, omissions, or misstatements;
- quality and management of data and verification that reported emission reductions data is sufficiently supported by evidence.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) verification approach draws on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. TÜV Rheinland (China) Ltd. (TÜV Rheinland) planned and performed the verification by obtaining evidence information and explanations that TÜV Rheinland (China) Ltd. (TÜV Rheinland) considers necessary to give reasonable assurance that reported emission reductions are fairly stated, accurate and free of material errors, omissions, or misstatements.

In TÜV Rheinland (China) Ltd. (TÜV Rheinland) opinion the emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region (ITL Project ID UA1000181) for the period from 01/08/2011 till 31/07/2012 are fairly stated, accurate and free of material errors,

omissions, or misstatements in the monitoring report, version 2.0 dated 25/10/2012.

The GHG emission reductions were calculated correctly on the basis of the registered project design document version 2.0 dated 27/05/2010.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) is able to verify that the emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region (ITL Project ID UA1000181) for the period from 01/08/2011 till 31/07/2012 amount 417 740 tonnes of CO_2 equivalent.

2 INTRODUCTION

Company Global Carbon B.V. has commissioned TÜV Rheinland (China) Ltd. (TÜV Rheinland) to carry out the verification of the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region (hereinafter "project") for the period from 01/08/2011 till 31/07/2012. This report contains the findings from the verification and conclusion on the verified amount of emission reductions.

2.1 Objective

The verification is the periodic independent review and ex post verification by an Accreditation Independent Entity (AIE) of the monitored reductions in GHG emissions that have occurred as a result of a Joint Implementation (JI) project activity during a defined verification period.

The purpose of the verification is to assess the reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks generated by a JI project and reported by the project participants through the monitoring report in accordance with paragraph 37 of the JI guidelines.

The objective of this verification was to verify emission reductions generated by the JI LSC project Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region for the period from 01/08/2011 till 31/07/2012.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) is an Accredited Independent Entity by the Joint Implementation Supervisory Committee.

2.2 Scope

The scope of this verification is the assessment of:

- project implementation in accordance with the project design document (PDD);
- compliance with the monitoring plan, including the revision of the monitoring plan;
- calculation of emission reductions and expression of a conclusion with a reasonable level of assurance about whether the reported emission reduction data are accurate and free of material errors, omissions, or misstatements;
- quality and management of data and verification that reported emission reduction data is sufficiently supported by evidence.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions, forward action requests may provide input for corrective actions in order to provide for more accurate future monitoring and reporting.

2.3 JI LSC Project Description

The brief information regarding the LSC project activity is provided in table 1.

Table 1 – JI LSC project brief information

Project Parties involved:	1. Ukraine (Host party). 2. Netherlands
Title of the project:	Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region
Type of JI activity:	Large-scale
ITL Project ID:	UA1000181
Baseline and monitoring methodology:	JI specific approach
Project entity participant:	"Electrostal" Ltd, 70 Industrial zone, Kurakhovo, Donetsk region, 85612, Ukraine
Other project participants:	Global Carbon BV, Graadt van Roggenweg 328, Building D, 3531 AH Utrecht,The Netherlands
Location of the project:	Premises of the Electrostal Plant of the "Electrostal" Ltd, 70 Industrial zone, Kurakhovo, Donetsk region, 85612, Ukraine
Crediting period of the project:	From 01/04/2008 to 31/12/2012
Period verified in this report:	From 01/08/2011 to 31/07/2012
Period verified in previous verification report:	From 01/03/2011 to 31/07/2011

The purpose of this project is to reduce emissions of greenhouse gases by using modern technologies to improve steel production in the Ukraine. The project envisages the construction of a green field steel manufacturing plant, based on a modern electric arc furnace (EAF). The EAF installed allows production of steel from almost 100% scrap metal feedstock. The new production facility will use less carbon intensive method to produce steel than a typically used by the majority of existing Ukrainian enterprises. This will allow reducing of GHG emissions. The project is expected to generate 1 956 668 tonnes of CO_2 equivalent of emission reductions during the crediting period.

The project has been registered as Track 1 JI project with the PDD ver.2.0 dated 27th May 2010 (the PDD). The documentation on the project including the PDD, Approvals by the Parties Involved, Determination Report, Initial, First, Second and Third Periodic Verification report is available at:

http://ji.unfccc.int/JIITLProject/DB/4THB9WT0PK6F721UQA5H6PTHZEXT4C/details and at http://www.carbonunitsregistry.gov.ua/en/publication/content/781.htm

3 METHODOLOGY

The verification process has been carried out using internal procedures of TÜV Rheinland (China) Ltd. (TÜV Rheinland). In order to ensure transparency, a Verification protocol (Annex A to Verification report) was customized for the project, according to the Annex to "Joint Implementation Determination and Verification Manual", version 01. The Verification protocol shows, in a transparent manner, criteria (requirements) and results of verification.

The verification consists of the following three phases:

I) a desk review of the monitoring report including analysis of the compliance of the monitoring plan with the monitoring methodology;

II) follow-up interviews with project stakeholders including on site visit;

III) the resolution of outstanding issues and the issuance of the final verification report and opinion.

The following subsections outline each step in more detail.

3.1 Desk review

Project participants provided TÜV Rheinland (China) Ltd. (TÜV Rheinland) all the necessary documents for document review. The monitoring report version 1.1 dated 25/08/2012 was assessed as part of the verification. In addition, the project's Project Design Document version 2.0 dated 27/05/2010 and project's Determination Report No.UKRAINE/0111/2010 dated 04/06/2010 were also reviewed. Supporting documents, such as, acceptance certificates of coal products, electricity, work completion certificate, environmental impact assessments and expert opinions, etc. were available during on site visit.

The information and formulae provided in the monitoring report was compared with PDD and stated data sources.

To address TÜV Rheinland (China) Ltd. (TÜV Rheinland) corrective action and clarification requests, project participants revised the monitoring report and resubmitted it as version 2.0 dated 25/10/2012.

The verification findings presented in this report relate to the monitoring report version 2.0 dated 25/10/2012 and project as described in the PDD version 2.0 dated 27/05/2010.

The following tables outline the documentation reviewed during the verification. Documents provided by Global Carbon B.V. that relate directly to the components of the project are indicated in table 2. Background documents related to the monitoring and/or methodologies

employed in the monitoring or other reference documents are provided in table 3.

Table 2 – Category 1 Documents

No.	Title of the document
/1/	PDD. Project Development Document "Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region", version 2.0 dated 27/05/2010 in Ukrainian.
/2/	Monitoring Report, version 1.0 dated 06/08/2012
/3/	Monitoring Report, version 1.1 dated 25/08/2012
/4/	Monitoring Report, version 2.0 dated 25/10/2012
/5/	GHG emission reduction calculation spreadsheet in Excel (20120731_MR004_Electrostal_ver1.1)
/6/	GHG emission reduction calculation spreadsheet in Excel (20120731_MR004_Electrostal_ver2.0)
/7/	"Joint implementation determination and verification manual", version 01, JISC.
/8/	"Guidance on criteria for baseline setting and monitoring", version 03, JISC.
/9/	Determination report #UKRAINE/0111/2010 Version 1.0 dated 04/06/2010
/10/	Letter of Approval by the Netherlands ref. 2010JI11 issued at 22 April 2010
/11/	Letter of Approval by the Ukraine ref. 1243/23/7 issued at 19 August 2010
/12/	Initial and First Periodic Verification Report #UKRAINE/0131/2010 Rev.02 dated 16/09/2010 (01/04/2008 – 3105/2010)
/13/	Second Verification Report #TRU009JI – VR2 Revision 02 dated 20th of April 2011 (01/06/2010 – 28/02/2011)
/14/	Third Verification Report #TRU009JI – VR3 Revision 02 dated 10th of August 2011 (01/03/2011 – 31/07/2011)

Table 3 – Category 2 Documents

No.	Title of the document
/1/	Technical report of the steel complex LLC "Electrostal for August 2011
/2/	Technical report of the steel complex LLC "Electrostal for September 2011
/3/	Technical report of the steel complex LLC "Electrostal for October 2011
/4/	Technical report of the steel complex LLC "Electrostal for November 2011

No.	Title of the document
/5/	Technical report of the steel complex LLC "Electrostal for December 2011
/6/	Technical report of the steel complex LLC "Electrostal for January 2012
/7/	Technical report of the steel complex LLC "Electrostal for February 2012
/8/	Technical report of the steel complex LLC "Electrostal for March 2012
/9/	Technical report of the steel complex LLC "Electrostal for April 2012
/10/	Technical report of the steel complex LLC "Electrostal for May 2012
/11/	Technical report of the steel complex LLC "Electrostal for June 2012
/12/	Technical report of the steel complex LLC "Electrostal for July 2012
/13/	Statement of acceptance - transferring of the electricity for August 2011 of LLC "Electrostal" dated 01/09/2011
/14/	Statement of acceptance - transferring of the electricity for September 2011 of LLC "Electrostal" dated 01/10/2011
/15/	Statement of acceptance - transferring of the electricity for October 2011 of LLC "Electrostal" dated 01/11/2011
/16/	Statement of acceptance - transferring of the electricity for November 2011 of LLC "Electrostal" dated 01/12/2011
/17/	Statement of acceptance - transferring of the electricity for December 2011 of LLC "Electrostal" dated 03/01/2012
/18/	Statement of acceptance - transferring of the electricity for January 2012 of LLC "Electrostal" dated 01/02/2012
/19/	Statement of acceptance - transferring of the electricity for February 2012 of LLC "Electrostal" dated 01/03/2012
/20/	Statement of acceptance - transferring of the electricity for March 2012 of LLC "Electrostal" dated 01/04/2012.
/21/	Statement of acceptance - transferring of the electricity for April 2012 of LLC "Electrostal" dated 01/05/2012.
/22/	Statement of acceptance - transferring of the electricity for May 2012 of LLC "Electrostal" dated 01/06/2012.
/23/	Statement of acceptance - transferring of the electricity for June 2012 of LLC "Electrostal" dated 01/07/2012.
/24/	Statement of acceptance - transferring of the electricity for July 2012 of LLC "Electrostal" dated 01/08/2012.
/25/	Passport of the meter EA 02RAL-BE4, ser. №01144644. Verification date 13/09/2006.

No.	Title of the document
/26/	Passport BBET – 150 ser. №061202763. Certificate of the verification dated 22/06/2012.
/27/	Passport automobile electrical metric scale BTA-60 ser. №061002044. Certificate of verification dated 22/06/2012.
/28/	Passport weight meter 4BDU_1500. Certificate of verification dated 29/12/2011.
/29/	Passport natural gas meter FLOINEK. Certificate of verification dated 04/11/2011.
/30/	Passport oxygen meter Optimass8000 #G070000006200029 DN40. Certificate of verification dated 03/01/2011.
/31/	Passport measurement device BCS_M584 #07 M174. Certificate of verification dated 02/07/2012.
/32/	Order #41 LLC "Electrostal" of data archiving.
/33/	Report on the Air Protection for 2011 (Form #2-TP(air))
/34/	Report on the Air Protection for 1st quarter 2012 (Form #2-TP(air))
/35/	Report on the Air Protection for 2nd quarter 2012 (Form #2-TP(air))
/36/	Journal of accounting resistance electrodes LF
/37/	Journal of accounting resistance electrodes EAF
/38/	Daily production reports. Daily technical report of CCM
/39/	Production reports of the technical report CCM 2011 (November 2011)
/40/	Production reports of the technical report CCM 2011 (December 2011)
/41/	Production reports of the technical report CCM 2011 (May 2012)
/42/	Technical report on oxygen consumption for August 2011
/43/	Technical report on oxygen consumption for September 2011
/44/	Technical report on oxygen consumption for October 2011
/45/	Technical report on oxygen consumption for November 2011
/46/	Technical report on oxygen consumption for December 2011
/47/	Technical report on oxygen consumption for January 2012
/48/	Technical report on oxygen consumption for February 2012
/49/	Technical report on oxygen consumption for March 2012
/50/	Technical report on oxygen consumption for April 2012
/51/	Technical report on oxygen consumption for May 2012
/52/	Technical report on oxygen consumption for June 2012
/53/	Technical report on oxygen consumption for July 2012
/54/	Technical report on natural gas consumption for August 2011
/55/	Technical report on natural gas consumption for September 2011
/56/	Technical report on natural gas consumption for October 2011
/57/	Technical report on natural gas consumption for November 2011

No.	Title of the document
/58/	Technical report on natural gas consumption for December 2011
/59/	Technical report on natural gas consumption for January 2012
/60/	Technical report on natural gas consumption for February 2012
/61/	Technical report on natural gas consumption for March 2012
/62/	Technical report on natural gas consumption for April 2012
/63/	Technical report on natural gas consumption for May 2012
/64/	Technical report on natural gas consumption for June 2012
/65/	Technical report on natural gas consumption for July 2012
/66/	Act of June 26, 2012 – repairing of natural gas measuring units
/67/	Act of June 26, 2012 on account of natural gas at the time of repair and the subsequent adoption of a new commercial counter.

3.2 Interviews with project stakeholders

TÜV Rheinland (China) Ltd. (TÜV Rheinland) performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Interviewed representatives of Global Carbon B.V. are summarized in Table 4. The main topics of the interviews are summarized in Table 5.

Table 4 – Persons interviewed

Name	Organization and position	Topic of interview
Natalya Belskaya	Global Carbon B.V., Project Developer	Reporting and calculation of emission reductions, data sources
Yevgeniy Altukhov	Global Carbon B.V., Representative in South-East Ukraine	Project management, site visit
Alexander Serov	Electrostal, Technical Department Head	Operational reporting, logbooks, plant visit, monitoring equipment
Valeriy Dmitrenko	Electrostal, Energy Department Head	Operational reporting, logbooks
Nikanor Frolov	Electrostal, Metrologist	Monitoring equipment
Bondar S.V.	Electrostal, Senior Foreman of CCM	Preparation of the shipping yard technical reports
Tatyana Isotova	Electrostal, Certification Engineer	
Sergey Tolmachev	Electrostal, Senior Foreman of EAF and LF	Operational reporting, logbooks
V.S. Hrapun	Electrostal, Plant Electrician	Operational reporting, logbooks
A.M. Ushakov	Electrostal, Head of Technical Control Unit	Operational reporting, logbooks
A.D. Mladenov	Electrostal, Head of Scrap Base	Operational reporting, logbooks

Table 5 – Interview topics

No.	Date	Interviewed organization	Interview topics
/1/	31/08/2012	Global Carbon B.V.	· Baseline methodology · Reporting and calculation of emission reductions · QA/QC of the project · Project management · Monitoring plan · Revision of the monitoring plan · Monitoring report · Deviations from PDD
/2/	31/08/2012	LLC "Electrostal"	· Organizational structure · Responsibilities and authorities · Monitoring equipment · Quality management procedures and technology · Roles and responsibilities for data collection and processing · Installation of equipment · Data logging, archiving, and reporting · Metering equipment control · Metering record keeping system, database · Training of personnel · Internal audits and check-ups

3.3 Resolution of Clarification, Corrective and Forward Action Requests

Where TÜV Rheinland (China) Ltd. (TÜV Rheinland), in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should raise these issues and inform the project participants of these issues in the form of:

- Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- Clarification request (CL), requesting the project participants to provide additional information for the AIE to assess compliance with the monitoring plan;

- Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

The verification of the project resulted in 16 Corrective action requests and 4 Clarification requests.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) made an objective assessment as to whether the actions taken by the project participants and presented in the Table 1 (Annex A to Verification report) satisfactorily resolve the raised issues and concluded its findings of the verification.

3.4 Internal Technical Review

The verification report including the verification findings underwent a technical review before requesting the publication according to paragraph 37 of the JI guidelines. The technical review was performed by an internal technical reviewer qualified in accordance with TÜV Rheinland (China) Ltd. (TÜV Rheinland) qualification scheme for JI project determination and verification.

3.5 Verification team

The verification team consists of the following personnel indicated in Table 6 below.

Table 6 – Verification team

Name	Role
Dr. Manfred Brinkmann	Accredited Independent Entity Operational Manager
Dr. Lixin Li	Technical Reviewer
Mr. Lakshman Prasad	TR Technical Expert
Dr. Valery Yakubovsky	Team Leader
Ganna Zadnipriana	Auditor
Dmytro Rakovich	Trainee

4 VERIFICATION FINDINGS

This section summarizes the findings from the verification of the emission reductions generated by the JI LSC project "Implementation of Arc furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk region" (ITL Project ID UA1000181) for the period from 01/08/2011 till 31/07/2012.

4.1 Project approval by Parties involved

In accordance with paragraphs 90 - 91 of the DVM the assessment of this area focuses on whether at least one written project approval by a Party involved in the JI project, other than the host Party(ies), has been issued by the DFP of that Party. It also should be assessed whether the written project approvals are unconditional.

A written project approval by Ukraine (host Party) is available:
Letter of Approval by the Ukraine ref. 1243/23/7 issued at 19 August 2010
Written project approval by a Party involved in JI SSC project, other than the host Party was obtained:
Letter of Approval by the Netherlands ref. 2010JI11 issued at 22 April 2010

Written project approvals are available at:
http://ji.unfccc.int/JIITLProject/DB/4THB9WT0PK6F721UQA5H6PTHZEXT4C/details
and at http://www.carbonunitsregistry.gov.ua/en/publication/content/781.htm

The written project approvals mentioned above are unconditional.
Identified problem areas for project approval, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Verification Report.

4.2 Project implementation

In accordance with paragraphs 92 - 93 of the DVM the assessment of this area focuses on whether the project has been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website. The status of operation of the project during the monitoring period also should be assessed.

The project has been implemented in accordance with the PDD version 2.0 dated 27/05/2010 regarding which the determination has been deemed final. This LSC JI project is registered as Track 1 project. The description of this project is available in section 2.3. of this Verification report.

The emission reductions generated by the JI SSC project reported for the period from 01/08/2011 till 31/07/2012 amount to 417 740 tCO_2e.

The verification team of TÜV Rheinland (China) Ltd. (TÜV Rheinland) can confirm, through the on-site visit that all physical features of the proposed JI LSC project activity including data collecting and storage systems have been implemented, the project is completely operational and has been implemented as described in the registered PDD version 2.0 dated 27/05/2010.

Identified problem areas for project implementation, project participants' answers and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Verification Report.

4.3 Compliance with monitoring plan

In accordance with paragraphs 94 - 98 of the DVM the assessment of this area focuses on whether the monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

The monitoring of the JI project occurred in accordance with the monitoring plan contained in the registered PDD 2.0 dated 27/05/2010.
For calculating the emission reductions key factors influencing the baseline emissions as well as risks associated with the project were taken into account, as appropriate. For more detailed information, please, refer to the determined and registered PDD, version 2.0 dated 27/05/2010.

All data sources used for calculating emission reductions are indicated in table B.2.1 and B.2.3 of the Monitoring Report, version 2.0 dated 25/10/2012.

The emission factor used to calculate emission reductions are selected in accordance with the registered PDD version 2.0 dated 27/05/2010. The choice of this emission factor is appropriately justified in the PDD version 2.0 dated 27/05/2010 and in general accuracy and reasonableness are carefully balanced.

The calculation of emission reductions is done based on conservative assumptions and the most plausible scenarios in a transparent manner. The calculation of the baseline emissions is based on the JI specific approach in accordance with the registered PDD version 2.0 dated 27/05/2010.

The calculation of emission reductions is done by subtracting the project emissions from the baseline emissions.
The detailed calculation of GHG emission reductions for chosen monitoring period (01/08/2011 – 31/07/2012) is provided in supporting documentation.

Identified problem areas for compliance with monitoring plan, project participants' answers and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Verification Report.

4.4 Revision of monitoring plan

If the project participants submitted to the AIE a revised monitoring plan, in accordance with paragraphs 99 - 100 of the DVM the assessment of this area focuses on whether the correct and complete justification for the proposed revision is provided, and whether the proposed revision improves the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

There was no revision to the monitoring plan. The monitoring of the JI LSC project occurred in accordance with the monitoring plan contained in the registered PDD, version 2.0 dated 27/05/2010.

Identified problem areas for compliance with monitoring plan, project participants' answers and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Verification Report.

4.5 Data Management

In accordance with paragraph 101 of the DVM the assessment of this area focuses on the quality of the information using standard auditing techniques provided in the monitoring report by assessing whether the data and their sources are clearly identified, reliable and transparent.

Data collection procedure is carried out in accordance with the monitoring plan, including the quality control and quality assurance procedures and has been checked by the verification team on site visit. The monitoring plan is presented in section D of the registered PDD version 2.0 dated 27/05/2010. The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.

The evidence and records used for the monitoring are maintained in a traceable manner. Verification team got an access to all necessary data on monitoring system and emission reductions and received necessary evidence on site visit.

The data collection and management system for the project is in accordance with the monitoring plan as described in the registered PDD 2.0 dated 27/05/2010.

Identified problem areas for data management, project participants' answers and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Verification Report.

4.6 Assessment of data and calculation of greenhouse gas emission reductions

The verification team of TÜV Rheinland (China) Ltd. (TÜV Rheinland) verified that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered PDD version 2.0 dated 27/05/2010.

According to the Monitoring Report, version 2.0 dated 25/10/2012 and GHG emission reductions calculation spreadsheet in Excel format the emissions for the project scenario, emissions for the baseline scenario and emission reductions for chosen monitoring period (01/08/2011 – 31/07/2012) are provided in table 7 below.

Table 7 – Results for Emission Reductions for Monitoring Period

Monitoring Period:	**01/08/2011 – 31/07/2012**
Emissions for the project scenario:	336 343 tCO_2e
Emissions for the baseline scenario:	754 083 tCO_2e
Leakage:	0 tCO_2e
Emission reductions:	417 740 tCO_2e

4.7 Remaining issues, CARs from previous determination/verification

Not applicable.

- o0o -

ANNEX A – VERIFICATION PROTOCOL

Table 1 – Requirements Checklist

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
1. Project approvals by Parties Involved				
1. 1. Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	90	The project has been approved by the DFPs of the Parties Involved and documentation is available: 1) Letter of Approval by the Netherlands ref. 2010JI11 issued at 22 April 2010 2) Letter of Approval by the Ukraine ref. 1243/23/7 issued at 19 August 2010	OK	OK
1. 2. Are all the written project approvals by Parties involved unconditional?	91	All the written project approvals by Parties involved are unconditional. "Electrostal" Ltd. And Global Carbon BV legal entities authorized by the designated focal points of the Parties Involved to participate in the JI project.	OK	OK
2. Project implementation				
2.1. Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	92	The project has been implemented in accordance with the registered PDD. This JI project is registered as Track 1. Project information is available (See Section A.3 of this report). Implementation schedule provided in section A.6.	OK	OK
2.2. What is the status of operation of the project during the monitoring period?	93	The project received a positive opinion by AIE and passed the final determination. Currently this project is at the stage of verification. During the monitoring period that covers time period between the 01/08/2011 and 31/07/2012 the project operated as planned. The verification team has verified during the site visit that the project, being a Steelmaking plant based in EAF steelmaking facility, is operational and evidence		OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		exists that it has operated during the whole monitoring period.		
3. Compliance with monitoring plan				
3.1. Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final?	94	Yes, the monitoring occurred in accordance with the monitoring plan included in the determined PDD. There were no deviations from this monitoring plan as well as no open issues since last verification.	OK	OK
3.2. For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) of DVM, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	95 (a)	Yes, all the key factors were taken into account for calculating the emission reductions or enhancements of net removals. For more detailed information, please, refer to Section B.2. of the determinated and registered PDD version 2.0.		OK
3.3. Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	95 (b)	The monthly technical reports of the LLC Electrostal have been identified as the data source for the following monitoring parameters: steel production, EAF electrode consumption, oxygen consumption, anthracite consumption, lime consumption and LF electrode consumption. This data source is based on the existing reporting system of the company and is clearly identified, reliable and transparent. However, during verification site-visit became evidence that the data of the monitoring report submitted by the project participants has some deviation of values from the initial reports of departments responsible for information collection. Receipt acts of oxygen consumption from August 2011 and January 2012 that were provided by	**CAR 01** **CAR 02** **CAR 03** **CAR 04** **CAR 05** **CAR 06** **CL 01**	OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		project participants during site-visit figures are different from the values specified in the monitoring report and calculation spreadsheets. Receipts for natural gas and monthly technical notes (reports) have been identified as the data source for the monitoring of natural gas consumption. This data source is based on the commercial metering system of the company and is clearly identified, reliable and transparent. However receipt acts of natural gas consumption from December 2011 and January 2012 that were provided by project participants during site-visit figures are different from the values specified in the monitoring report and calculation spreadsheets. The receipts of the supplier have been identified as data sources used for the monitoring of electricity consumption. This data source is based on the commercial metering system of the company and is clearly identified, reliable and transparent. However, the source of primary data must be specified for all consumption parameters and traced to the final document reporting without significant changes. However, due by September 2011 [14] that was provided by the project participants and verified by the verification team has no values of parameters indicated in the calculation of emission reductions. Also, some indicators electricity consumption has some differences from that of the automatic control system and metering of electricity.		

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		The monitoring report mentions code "Tr #1" as the code to identify electricity consumption by the project in receipt. But, the receipt for 2011 [13-24] that has been provided by the project participants and checked by the verification team does not contain such code. **CAR 01:** Please correct the value the natural gas consumption for calculation of emission reductions from the project based on receipts for consumed gas, that were identified as a source of data. **CAR 02:** Please correct the values of oxygen consumption for calculation of project emissions based on receipts for consumed gas that were identified as a source of data. **CAR 03:** Please correct the data on the consumption of lime and provide an initial report of (EAF and LF) whose data were used for the formation of technical reports. **CAR 04:** There are varying values in the technical reports and initial data of electrodes consumption taken from expense sheet of elements for melting steel. Correct and explain the difference. **CAR 05:** Please correct value of electricity consumption by the plant for September 2011		

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		according to the Electricity Delivery-Acceptance Acts and provide an explanation of some difference of payment acts and energy and data automatic registration (ASCAPC). **CAR 06:** Please correct the reference code used to determine the data of electricity consumption in receipts, which have been identified as sources of data (in acts of reception and transmission, he is listed as "Тр № 1"). **CL 01:** Please explain the reduction of energy resources consumption for the production of commodity products (steel).		
3.4. Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	95 (c)	Emission factors, including default emission factors, used for calculating the emission reductions or enhancements of net removals, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice. The emission factors used to calculate emission reductions are selected in accordance with the registered PDD ver. 2.0. The choice of these emission factors is appropriately justified in the PDD ver. 2.0 and in general accuracy and reasonableness are carefully balanced. However, sources and references for emission factors should be updated to ensure greater transparency for their choice. Emission factor for global baseline emission factor for steel produced is referenced	**CAR 07** **CAR 08** **CL 02**	OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		to the registered determinated PDD and corresponds with it. Baseline emission factor for anthracite consumption during the steelmaking process are referenced to the 2006 IPCC Guidelines but the values are not traceable to the source referenced. Baseline emission factor for oxygen consumption during the steelmaking process is correctly referenced to the PDD ver. 2.0 but reference is not complete. **CAR 07:** Please provide the formula that was used to calculate the coefficient of greenhouse gas emissions from the oxygen consumption. **CAR 08:** Please provide a full description of the sources of data of the variables in Table. B.2.1 and provide links to relevant documents and formulas that were used for their calculation. **CL 02:** Please explain why more relevant information is not used from National Inventory Report for monitoring of emission reductions.		
3.5. Is the calculation of emission reductions or enhancements of net removals calculated based on conservative assumptions and the most plausible scenarios in a transparent manner?	95 (d)	The calculation of emission reductions is done based on conservative assumptions and the most plausible scenarios in a transparent manner. Project emissions are presented as the sum of the emissions values by components of the steel making process. The following sources of emissions can be observed during the EAF operation: 1. Electrodes consumption by EAF 2. Oxygen consumption	**CAR 09** **CAR 10**	OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		3. Electricity consumption by EAF and LF 4. Natural gas consumption 5. Anthracite consumption 6. Lime consumption 7. Electrodes consumption by LF However, the formula which marked as Equation 10 in the monitoring report should be updated in accordance with the PDD in order to achieve greater transparency, because it does not contain Leakage component. Also, this equation is available error in reference to the equation number of PDD and in the explanation after Equation 10 in MR. The calculation of the baseline emissions is based on the JI specific approach in accordance with the registered PDD and rests on the global baseline emission factor for steel produced. This factor is applied to the steel production level which is assumed equal in both project and baseline scenario. Since there is no significant changes or adjustments of the initial data in monitoring period, update this coefficient is not needed. The calculation of emission reductions is done by subtracting the project emissions from the baseline emissions. **CAR 09:** In section D.1 correct reference to a formula for calculating GHG emission reduction and content formula in accordance with the		

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		registered PDD version 2.0 dated 27 May 2010. **CAR 10:** Please provide information about the amount of expected and achieved emissions for the period from 01/08/2011 – 31/07/2012.		
4. Applicable to JI SSC projects only				
4.1. Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	96	Not applicable	OK	OK
5. Revision of monitoring plan ***Applicable only if monitoring plan is revised by project participants***				
5.1. Did the project participants provide an appropriate justification for the proposed revision?	99 (a)	Not applicable	OK	OK
5.2. Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	99 (b)	Not applicable	OK	OK
6. Data management				
6.1. Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	101 (a)	Data collection procedure is carried out in accordance with the monitoring plan, including the quality control and quality assurance procedures and has been checked by the verification team on-site. The monitoring plan is	**CL 03**	

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		presented in the section D of the registered PDD ver.2.0. **CL 03:** Explain why the points of energy losses in the transformer and electricity lines for manufacture needs are excluded monitoring of electricity consumption by the plant.		
6.2. Is the function of the monitoring equipment, including its calibration status, is in order?	101 (b)	The monitoring equipment employed by the project has functioned in accordance with the monitoring plan and in general is in order. The verification team has verified that the reported metering devices are in fact installed and operational. The metering devices have appropriate documentation, such as passports and calibration certificates. Calibration has been performed in accordance with the procedures of the Host Party and evidence of these calibrations has been provided (calibration certificates and/or evidence of calibration in the passports of the devices). It has been verified that the calibration did occur at the correct calibration intervals for all metering devices. During the monitoring period in the factory was replaced natural gas meter. Calibration temporary meter which monitors gas consumption during replacement work (from 01.06.2012 to 11.06.2012) was held in necessary set time. **CAR 11:** Please provide more accurate data for calibration of the monitoring equipment in the table. B.1.2. **CAR 12:** Please provide information for the	**CAR 11** **CAR 12** **CAR 13** **CL 04**	OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		replacement procedures of gas meter and natural gas accounting for this period. **CAR 13:** Please provide make more accurate name of the gas meter number #3060147. **CL 04:** Please provide confirming documents for calibration interval of energy meters Alpha 1140 is 8 years.		
6.3. Are the evidence and records used for the monitoring maintained in a traceable manner?	101 (c)	The evidence and records used for the monitoring are maintained in a traceable manner. **CAR 14:** The description of data source for monitoring of any resource must be clearly indicated where exactly consumption and costs of this resource was taken. Please provide the information in the section B.2.2 and initial source of data consumption of electrodes, oxygen, natural gas, anthracite and lime.	**CAR 14**	OK
6.4. Is the data collection and management system for the project in accordance with the monitoring plan?	101 (d)	Implemented data collection and management system is in accordance with the monitoring plan, as described in the PDD determination of which is considered to be final. **CAR 15.** License information for personal training available. Please give an explanation and related documents. **CAR 16:** Please provide numbers for all formulas	**CAR 15** **CAR 16**	OK

CHECKLIST QUESTION	DVM* paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		in MR.		

DVM* - Joint Implementation Determination and Verification Manual, version 01

Table 2 - Resolution of CARs, CLs and FARs

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
1.	**CAR 01.**	Please correct the value the natural gas consumption for calculation of emission reductions from the project based on receipts for consumed gas, that were identified as a source of data.	95 (b)	Technical reports are the primary data on the key monitoring parameters. ERUs were calculated accordingly. Data for Technical reports is gave from internal manual registration which is insignificant different from the data for Commercial Receipt which is gave from automatic registration in ASCAPC due to different time of meter reading. Please see attached plant clarification. Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
2.	**CAR 02.**	Please correct the values of oxygen consumption for calculation of project emissions based on receipts for consumed gas that were identified as a source of data.	95 (b)	Technical reports are the primary data on the key monitoring parameters. ERUs were calculated accordingly. Data for Technical reports is gave from internal manual registration which is insignificant different from the data for Commercial Receipt which is gave from automatic registration in ASCAPC due to different time of meter reading. Please see attached plant clarification. Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
3.	**CAR 03.**	Please correct the data on the consumption of lime and provide an initial report of (EAF and LF) whose	95 (b)	Technical reports and Electricity Delivery-Acceptance Acts are the primary data on the key monitoring parameters. ERUs were	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
		data were used for the formation of technical reports.		calculated accordingly. Relevant clarifications have been made in MR. Please see revised MR (version 2.0).	
4.	**CAR 04.**	There are varying values in the technical reports and initial data of electrodes consumption taken from expense sheet of elements for melting steel. Correct and explain the difference.	95 (b)	Technical reports and Electricity Delivery-Acceptance Acts are the primary data on the key monitoring parameters. ERUs were calculated accordingly. Relevant clarifications have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
5.	**CAR 05.**	Please correct value of electricity consumption by the plant for September 2011 according to the Electricity Delivery-Acceptance Acts and provide an explanation of some difference of payment acts and energy and data automatic registration (ASCAPC).	95 (b)	Electricity Delivery-Acceptance Acts are the primary data on the key monitoring parameters. ERUs were calculated accordingly. Data for Delivery-Acceptance Acts is gave from manual registration which is insignificant different from the automatic registration in ASCAPC due to different time of meter reading. Relevant changes have been made in ER calculation. Please see revised excel file (version 2.0).	**Issue is closed**
6.	**CAR 06.**	Please correct the reference code used to determine the data of electricity consumption in receipts, which have been identified as sources of data (in acts of reception and transmission, he	95 (b)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
		is listed as "Тр № 1").			
7.	**CAR 07.**	Please provide the formula that was used to calculate the coefficient of greenhouse gas emissions from the oxygen consumption.	95 (c)	Formula was added to revised MR. Please see added information in revised MR (version 2.0).	**Issue is closed**
8.	**CAR 08.**	Please provide a full description of the sources of data of the variables in Table. B.2.1 and provide links to relevant documents and formulas that were used for their calculation.	95 (c)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
9.	**CAR 09.**	In section D.1 correct reference to a formula for calculating GHG emission reduction and content formula in accordance with the registered PDD version 2.0 dated 27 May 2010.	95 (d)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
10.	**CAR 10.**	Please provide information about the amount of expected and achieved emissions for the period from 01/08/2011 – 31/07/2012.	95 (d)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
11.	**CAR 11.**	Please provide more accurate data for calibration of the monitoring equipment in the table. B.1.2.	101 (b)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
12.	**CAR 12.**	Please provide information for the replacement procedures of gas meter and natural gas accounting for this period.	101 (b)	During monitoring period Metering system for natural gas consumption was replaced. Old meter #3060147 operated until 01/06/2012. During replacement period temporary meter #456 operated from	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
				01/06/2012 until 11/06/2012 (both date include). After end of replacement period new meter #12058684 operated from 12/06/2012 and afterward. Please see revised MR (version 2.0) and files "Act new meter", "Act temporary meter".	
13.	**CAR 13.**	Please provide make more accurate name of the gas meter number #3060147.	101 (b)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
14.	**CAR 14.**	The description of data source for monitoring of any resource must be clearly indicated where exactly consumption and costs of this resource was taken. Please provide the information in the section B.2.2 and initial source of data consumption of electrodes, oxygen, natural gas, anthracite and lime.	101 (c)	Technical reports and Electricity Delivery-Acceptance Acts are the primary data on the key monitoring parameters. ERUs were calculated accordingly. Relevant clarifications have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
15.	**CAR 15.**	License information for personal training available. Please give an explanation and related documents.	101 (d)	"Electrostal" Ltd. had the own license which allows providing education on working specialties concerning iron and steel works. License of Ministry of Education and Science of Ukraine No 363304 period to applicable 26.06.2007-26.06.2012. At the moment, the company receiving a new license. Education isn't performed during the period of absence of license. New license will be provided at the next	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
				verification.	
16.	**CAR 16.**	Please provide numbers for all formulas in MR.	101 (d)	Relevant changes have been made in MR. Please see revised MR (version 2.0).	**Issue is closed**
17.	**CL 01.**	Please explain the reduction of energy resources consumption for the production of commodity products (steel).	95 (b)	Reducing energy consumption for steel production is one of the major long-term policy objectives of the enterprise. This is achieved by constant monitoring and analysis as well as the improvement of production technology. Significant reducing natural gas consumption was achieved as a result of nitrogen blowing of burners instead of natural gas blowing.	**Issue is closed**
18.	**CL 02.**	Please explain why more relevant information is not used from National Inventory Report for monitoring of emission reductions.	95 (c)	The project participants are using the emission factors from the monitoring plan in its current version. Values from IPCC are used over the ones from the national inventories due to the fact that currently available national inventories cover the period of 1990-2010. The latest report that contains values for 2010 has been published but did not go through the full cycle of inventory review under the Kyoto Protocol and can be subject to adjustments. IPCC values are the basis upon which the national inventory reports are developed. These values have a broader applicability	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
				context, as a rule, are more conservative and are recognized worldwide. IPCC values do not have a time constraint associated with national inventory reports as described above. Taking into account that the monitoring period covers part of year 2011 and part of year 2012 for which national inventory data are not available project participants have decided to use IPCC values. Please see revised MR (version 2.0).	
19.	**CL 03.**	Explain why the points of energy losses in the transformer and electricity lines for manufacture needs are excluded monitoring of electricity consumption by the plant.	101 (a)	CO_2 emission factor for electricity consumption in period *y* is accepted by the DFP and is based on actual power plants data according with "Calculation methodology for specific carbon dioxide emissions from electric energy production at thermal power plants and its consumption", National Environmental Investment Agency of Ukraine (NEIA), 2011. This methodology and the resulting CO_2 emission factor have been developed by the DFP of Ukraine for the application in JI projects. Estimated CO_2 emission factor includes all loss during electricity supply to consumers and equal to the indirect specific carbon dioxide emissions from electricity consumption by the 1st class electricity	**Issue is closed**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
				consumers according to the Procedure for determining the class of consumers, approved by the National Electricity Regulatory Commission of Ukraine dated August 13, 1998 #1052. So net electricity consumption from Electricity Delivery-Acceptance Acts is used for monitoring JI project. Please see attached "Calculation methodology for specific carbon dioxide emissions from electric energy production at thermal power plants and its consumption".	
20.	**CL 04.**	Please provide confirming documents for calibration interval of energy meters Alpha 1140 is 8 years.	101 (b)	According Passport of Alpha A1140 maximum calibration interval for the Alpha A1140 meter in Ukraine is equal to 6 years. Relevant changes have been made in MR. Please see revised MR (version 2.0) and Passport of Alpha A1140.	**Issue is closed**