VERIFICATION REPORT

MUNICIPAL COMMERCIAL ENTERPRISE "DONETSKMISKTEPLOMEREZHA"

VERIFICATION OF JI PROJECT

"REHABILITATION OF THE DISTRICT HEATING SYSTEM IN DONETSK CITY"

2rd periodic

REPORT NO. UKRAINE-ver/0316/2011

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

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"REHABILITATION OF THE DISTRICT HEATING SYSTEM IN DONETSK CITY"

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VERIFICATION REPORT

Date of first issue: 22/08/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Municipal commercial enterprise "Donetskmiskteplomerezha"	Client ref.: Viktor Rogachov

Summary:

Bureau Veritas Certification has made the 2nd periodic verification of the "Rehabilitation of the District Heating System in Donetsk City" project of Municipal commercial enterprise "Donetskmiskteplomerezha" located in the city of Donetsk and applying the JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CR, CAR and FAR), presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is ready to generate GHG emission reductions. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 40097 tons of CO2eq for the monitoring period from 01/10/2010 till 30/06/2011.

Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: UKRAINE-ver/0316/2011	Subject Group: JI
Project title: "Rehabilitation of the District Heating System in Donetsk City"	
Work carried out by: Svitlana Gariyenchyk – Team Leader, Lead Verifier Oleg Skoblyk – Team Member, Lead Verifier, Technical Specialist	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer	
Work approved by: Flavio Gomes – Operational Manager	

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Bureau Veritas Certification Holding SAS

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Table of Contents *Page*

1 INTRODUCTION

Municipal commercial enterprise "Donetskmiskteplomerezha" has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project the "Rehabilitation of the District Heating System in Donetsk City" (hereafter called "the project") in the city of Donetsk

This report summarizes the findings of the verification of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

1.3 Verification Team

The verification team consists of the following personnel:

Svitlana Gariyenchyk
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Oleg Skoblyk
Bureau Veritas Certification Team Member, Climate Change Lead Verifier, Technical Specialist

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

2 METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

The completed verification protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Monitoring Report (MR) “Rehabilitation of the District Heating System in Donetsk City” version 01 dated 18/07/2011 submitted by Municipal commercial enterprise “Donetskmiskteplomerezha” and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, prior to and following the site-visit PPs revised the MR and resubmitted it as version 02 dated 04/08/2011 that is considered final.

The verification findings presented in this report relate to the Monitoring Report versions 01and 02 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 1-2 August 2011 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Municipal commercial enterprise "Donetskmiskteplomerezha" and "VEMA S.A" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Municipal commercial enterprise "Donetskmiskteplomerezha"	• Project implementation status • Organizational structure • Responsibilities and authorities • Personnel training • Quality management procedures and technology • Records of equipment installation • Control of metering equipment • Metering record keeping system, database • Cross-check of the information provided in the MR with other sources
"VEMA S.A"	• Baseline methodology • Revisions of the Monitoring plan • Monitoring report • Deviations from PDD

2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the GHG emission reduction calculation.

If the Verification Team, 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:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;

(b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;

(c) 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 Team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily resolve the issues raised, if any, and should conclude its findings of the verification.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

3 VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 14 Corrective Action Requests and 17 Clarification Requests.
The number between brackets at the end of each section corresponds to the DVM paragraph.

3.1 Remaining issues and FARs from previous verifications

During the 1st periodic verification carried out for the period from 01/01/2008 to 30/09/2010 Bureau Veritas Certification issued a forward action request FAR 01:
“Verification team observed on site that the initial reporting documentation including logbooks comprising data for the years 2008-2009 at some project sites was not physically available”.
In response to BVC’s request, during the current monitoring period the project participants submitted a missed documentary evidence that are energy resource logbooks of boiler houses Artema 43, 45 and RCVD and the following explanation concerning the data storage:
“Data for the previous years of monitoring are stored in electronic form in Information-analytical system "Accounting and control of energy resources consumption, DEB&FR (department of energy balance and fuel resources) "introduced into service in August 2009. Energy resource logbooks

retained at least 20 years in Municipal commercial enterprise "Donetskmiskteplomerezha archive".

Based on the sufficient explanation, as well as documentary evidence provided by the Project participants to the verification team, the issue is considered to be closed.

3.2 Project approval by Parties involved (90-91)

Written project approvals by Switzerland and Ukraine have been issued by the DFPs of those Parties when submitting the first verification report. (They are listed among Category 1 Documents in the Reference section of this report)

The abovementioned written approvals are unconditional.

3.3 Project implementation (92-93)

The implementation status of the project is described in detail in Annex 2 to the submitted MR. On the whole, implementation of the rehabilitation of boiler-houses and heat supply networks is realized mainly according to the project plan with some deviations from the schedule presented in a table below:

No.	Measures	Quantity of the units of performed works	Starting of construction	Putting into operation
01/10/2010- 30/06/2011				
1	Replacement of boilers	0	N/A	N/A
2	Replacement of heat supply networks, m	1024	01/01/2010	2010-2011
3	Installation of heat utilizers	10	01/01/2008	31/12/2010

Insignificant deviations from the project were observed. They concern the installed boilers' power and are explained by change of needs in heat energy. In some cases the replacement of other (in relation to planned) diameters of the heat supply networks took place due to the production necessity.
Start date of the project activity according to PDD is 11/10/2004.

3.4 Compliance of the monitoring plan with the monitoring methodology (94-98)

The monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final.

For calculating the emission reductions key factors, such as:

- high priority of heat supply sector for the national energy saving policy declared by the Ukrainian Government of Ukraine and stated in the State Program of Communal Economics Restructuring and Development for 2004-2010 (Ukrainian Law “On heat supply” No. 2479-VI from 09.07.2010), Ukrainian Law “On energy saving” No. 74/94-VR from 01.07.1994 and Ukrainian Law “About amendments to the Ukrainian Law “On energy saving” No. 1026-V from 16.05.2007. New Law of Ukraine “On heat supply” No. 2633-IV from 02.06.2005 which regulate relations on the heat supply market and stipulates for the implementation of energy saving measures and more efficient technologies.
- high price of the fuel, in particular natural gas which is nearly 95 % of fuel type used in Ukraine for the needs of the municipal heat supply;
- the amount of fuel consumption is calculated for the conditions in which normative parameters of heat and hot water supply are provided. Implementation of continuous monitoring of its quality (measurement of internal temperature in the specific buildings as well as registration of residents’ complaints for the poor-quality heat supply) is foreseen. This increases the control for the qualitative heat supply for the consumers and excludes deliberate reduction of heat consumption, and, in such a way, of fuel consumption with the purpose of increasing generation of GHG emissions reduction units;
- lack of monitoring devices for heat and heat-carrier consumption in the municipal boiler-houses presents the main complication for implementation of the JI projects on district heating in Ukraine. In this context, and taking into consideration essential load changes in the boilers, constant fuel consumption measurement taken by the highly accurate measurement equipment, provides for more its more exact measurement

influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions such as:

- Fuel consumption by boiler-houses (Natural gas)
- Heat value of natural gas

- Average external temperature during heating season
- Average internal temperature during heating season
- Quantity of hot water supply consumers
- Total heating area
- Average heat-transfer factor of the buildings in base year
- Heating area of buildings (existed in base year) with improved heat insulation in reporting year
- Heating area of new buildings connected to the heat supply system Heat-transfer factor of the buildings with new thermal insulation
- Duration of heating period
- Duration of hot water supply period
- Maximal connected load for heating services
- Connected load for hot water supply
- Standard specific discharge of hot water at personal account
- Conversion factor for average load within heating period
- Electric energy consumption by the boiler-houses, wherein frequency regulation are planned
- CO2 emission factor for natural gas

are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The relevant threshold to be classified as JI SSC project was not exceeded during the monitoring period under consideration on an annual average basis.

Outstanding issues related to the Compliance of the monitoring plan with the monitoring methodology, PP's response and BV Certification's conclusion is described in Appendix A (refer to CAR02, CAR03, CAR04, CAR05, CAR06, CAR08, CAR09, CAR10, CL11, CL14,CL16).

3.5 Revision of monitoring plan (99-100)

During the monitoring period at Municipal commercial enterprise "Donetskmiskteplomerezha" 11 gas meters were replaced.
The project participants provided an appropriate justification for the proposed revision. The reason of meters replacement was state verification that should be once in 2 years, for carrying out continual monitoring, meters were replaced with already calibrated at state verification meters. Replaced meters were sent to state verification.

The complete list of the replaced gas meters, including their inventory numbers, as well as the place of installation, is provided in Section A.8. of the MR and Annex 4 “Measuring Equipment” to it.

The proposed revision improves the accuracy of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

3.6 Data management (101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.

The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. These procedures are mentioned in the section “References” of this report.

The function of the monitoring equipment, including its calibration status, is in order.

The evidence and records used for the monitoring are maintained in a traceable manner.

The data collection and management system for the project is in accordance with the monitoring plan.

Outstanding issues related to the Data management, PP’s response and BV Certification’s conclusion is described in Appendix A (refer to CAR01, CAR07, CAR11, CAR12, CAR14, CL 01-10, CL12, CL13, CL15, CL17).

3.7 Verification regarding programmes of activities (102-110) “Not applicable”

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 2nd periodic verification of the “Rehabilitation of the District Heating System in Donetsk City” Project in Ukraine. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of Municipal commercial enterprise "Donetskmiskteplomerezha" is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring and Verification Plan indicated in the final PDD version 03 dated 18/10/2010. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 02 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

Reporting period: From 01/10/2010 to 30/06/2011

Baseline emissions	: 148304	t CO2 equivalents.
Project emissions	: 108207	t CO2 equivalents.
Emission Reductions	: 40097	t CO2 equivalents.

5 REFERENCES

Category 1 Documents:
Documents provided by Municipal commercial enterprise "Donetskmiskteplomerezha" that relate directly to the GHG components of the project.

/1/ PDD "Rehabilitation of the District Heating System in Donetsk City" version 03 dated 18/10/2010
/2/ Monitoring report #2 "Rehabilitation of the District Heating System in Donetsk City" version 01 dated 18/07/2011
/3/ Monitoring report #2 "Rehabilitation of the District Heating System in Donetsk City" version 02 dated 04/08/2011
/4/ Excel spread sheet: Annex 2: Calculation of CO2 emission reductions in the system of Municipal commercial enterprise "Donetskmiskteplomerezha" and plan of project measures implementation
/5/ Annex 3: Project equipment
/6/ Annex 4: Measuring equipment
/7/ Letter of Approval No 1833/23/7 dated 10/11/2010 issued by National Environmental Investment Agency of Ukraine, acting as the Ukrainian Designated Focal Point
/8/ Letter of Approval No J294-0485 dated 26/10/2010 issued by the Federal Office for the Environment, acting as the Swiss Designated Focal Point

Category 2 Documents:
Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 191a from 27.10.2010 № 275-280
/2/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 245 №266-268 from 27.12.2010
/3/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 № 263-265 from 27.12.2010
/4/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house Mkr. Kyivskiy №287-292 from 27.12.2010
/5/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 №293-298 from 27.12.2010
/6/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 14-67 №299-301 from 27.12.2010
/7/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward MR 4 №302-304 from 27.12.2010
/8/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration № 9/323T from 15.12.2010 boiler

house ward 191 a

/9/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №12/323T from 15.12.2010 boiler house ward 245

/10/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №10/323T from 15.12.2010 boiler house ward 138

/11/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №6/323T from 15.12.2010 boiler house Mkr. Kyivskiy .

/12/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №5/323T from 15.12.2010 boiler house ward 287

/13/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №13/323T from 15.12.2010 boiler house ward 14-67

/14/ Delivery and receipt act of installed equipment, Main Households Department of Donetsk regional state administration №11/323T from 15.12.2010 boiler house MKR-4

/15/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house SENB from 27.12.2010

/16/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house SENB from 14.03.2011

/17/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house SENB from 11.10.2010

/18/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house SENB from 08.10.2010

/19/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 from 05.11.2010

/20/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 from 22.11.2010

/21/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 from 16.03.2011

/22/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 from 12.03.2011

/23/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 138 from 20.03.2011

/24/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 14-67 from 05.10.2010

/25/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 14-67 from 24.12.2010

/26/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 14-67 from 19.03.2011

/27/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 289 from 08.10.2010

/28/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 289 from 13.10.2010

/29/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 289 from 19.10.2010

/30/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 289 from 04.11.2010

/31/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 289 from 19.03.2011

/32/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 191 from 06.02.2011

/33/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 191 from 07.02.2011

/34/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 245 from 02.04.2011

/35/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 245 from 03.04.2011

/36/ Delivery and receipt act of fixed, reconstructed and modernized facilities in boiler house ward 245 from 11.04.2011

/37/ Order about beginning of heating season № 464 from 01.10.2010

/38/ Order about ending of heating season №214 from 12.04.2011

/39/ The contract for the thermal energy supply №951 with ch№ 2 (City Hospital № 2 "Energetic") from 20.02.2007

/40/ Energy resources log book of boiler house Artema 43, 45

/41/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 08 issue date 12.12.2010

/42/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 13 issue date 12.12.2010

/43/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 07 issue date 12.12.2010

/44/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 11 issue date 12.12.2010

/45/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 14 issue date 12.12.2010

/46/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 01 issue date 12.12.2010

/47/ Certificate of HRU 16-10-265heat recovery unit for water heating serial number 02 issue date 12.12.2010

/48/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 10 issue date 12.12.2010

/49/ Certificate of HRU 16-10-265 heat recovery unit for water heating serial number 12 issue date 12.12.2010

/50/ Energy resources log book of boiler house ward RCVD

/51/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 01.04.2011 to 04/15/2011 from May 6, 2011 № 11.24/194

/52/ The data of Donetsk Regional Hydrometeorological centre about average air

temperature in Donetsk city for the period from 01.03.2011 to 31.03.2011 from April 4, 2011 №11.24/137

/53/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 01.02.2011 to 28.02.2011 from March, 2011 №11.24/97

/54/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 01.01.2011 to 31.01.2011 from February 3, 2011 №11.24/53

/55/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 01.12.2010 to 31.10.2010 from January 10, 2011 №11.24/7

/56/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 01.11.2010 to 30.11.2010 from December 2, 2010 №11.24/715

/57/ The data of Donetsk Regional Hydrometeorological centre about average air temperature in Donetsk city for the period from 03.10.2010 to 30.10.2010 from November 3, №11.24/650

/58/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for October 2010

/59/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for November 2010

/60/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for December 2010

/61/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for January 2011

/62/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for February 2011

/63/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for March 2011

/64/ BAT Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for April 2011

/65/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for May 2011

/66/ Certificate of natural gas physic-chemical parameters, transferred to OJSK "Donetskmiskgaz" for June 2011

/67/ Characteristics of hot water consumers for the period October 2010 - June 2011 from 10.08.2011 № 2887 / 2

/68/ Application for transfer of the scheduled repair of boiler house Ionina, № 1711 from 19.05.11

/69/ Confirmation of the transfer of the planned repair of boiler house Ionina № 1835 from 19.05.11

/70/ Characteristics of heating facilities for October 2010 - June 2011 from 10.08.2011 № 2887

/71/ Explanation about consumers disconnection and heating area changing. № 2887 / 1 from 10.08.2011

/72/ Statement about results of temperature measurements inside heated space in Budenovsky heat district for March 2011".

/73/ Schedule of hot water supply stoppages in the repair period of 2011 at objects of Municipal commercial enterprise "Donetskmiskteplomerezha"

/74/ The contract for thermal energy supply № 951 boiler house chN№2 from February 20, 2007

/75/ The contract for thermal energy supply №1600 boiler house SENB from January 1, 2007

/76/ The contract for thermal energy supply №763 boiler house SENB from March 12, 2007

/77/ The contract for thermal energy supply №763 boiler house SENB chN№2 from February 1, 2007

/78/ Daily calculation of gas consumption boiler house ward 14-67 from October 1, 2010 to June 30, 2011. In m3 of natural gas is presented in spreadsheet format.

/79/ Contract № 18/11/11 about Hydrometeorological information supply from 30/12/2010

/80/ Subcontract with LLC "TOP ENERGY" № 27-10 for installation of heat recovery unit from 12/01/2010

/81/ Technical agreement about the procedure of gas accounting № 4290-TU from January 13, 2011

/82/ Contract № 13/1621 for implementation of metrological works of 18/08/2009

/83/ Supplementary Agreement to Contract № 13/1621 for implementation of metrological works of 18/08/2009

/84/ Municipal commercial enterprise "Donetskmiskteplomerezha". Petrovka heat district. Boil. MR-4

/85/ Certificate No. UA 2.038.05031-10 dated 20/08/2010, valid till 20/08/2015 issued by the UkrSEPRO Certification System

/86/ Certificate "Specialist in the Quality Mamagement System" No. TRU-AK/11/00353 issued 29/06/2011 to Vadim Osipenko by TUV Rheinland Ukraine

/87/ Certificate "Specialist in the Quality Mamagement System" No. TRU-AK/11/00352 issued 29/06/2011 to Vadim Kulik by TUV Rheinland Ukraine

/88/ Certificate "Specialist in the Quality Mamagement System" No. TRU-AK/11/00351 issued 29/06/2011 to Alexander Shmal'ko by TUV Rheinland Ukraine

/89/ Heat recovery unit (serial number №10)

/90/ heat meter Ultraheat 50 inv № 434332

/91/ Gas volume corrector V25. INV № 430251 SerialN№01002

/92/ Gas meter G-600 RGK INV № 431935 SerialN№1966

/93/ Pressure sensor "Safir M" Model 5430.Serial №9167178

/94/ Pressure sensor "Safir M" Model SerialN№ 12475456

/95/ Pressure sensor "Safir M" Model 5052. SerialN№ 02192212

/96/ Energy resources log book

/97/ Repair log book

/98/ MCE "Donetskmiskteplomerezha"Budyonovskiy heat district Boiler SENB

/99/ Gas meter G-400 РГК SerialN№5909

/100/ Gas volume meter. Universal-02 SerialN№555

/101/ Energy resources log book

/102/ Switching consumers from boiler house c/h № 2 Outside PFU Izolation

/103/ MCE "Donetskmiskteplomerezha". Kaluninskyi heat district. Boil. qr. 138

/104/ Heat recovery unit (serial number №7)

/105/ heat meter Ultraheat 50

/106/ Pressure sensor certificate "Safir M" Model 5050. SerialN№02182204 (currently in state verification)

/107/ Pressure sensor certificate "Safir M" Model 5415 SerialN№ 10507742 (currently in state verification)

/108/ Pressure sensor certificate "Safir M" Model 5420 Serial № 10507742 (currently in state verification)

/109/ Gas volume meter certificate. Universal-02

/110/ Energy resources log book

/111/ The positive conclusion of state complex expertise number 05-01151-10 Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 (8 units) and TVG-8M (14 units) in Donetsk city from 08/10/2010

/112/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house ward 191a

/113/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house ward 245

/114/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house ward 138

/115/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house ward 287

/116/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house MR Kyivskiy

/117/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house MR4

/118/ Working project Reconstruction of boiler with the introduction of waste heat utilization unit from flue gases in boilers PTVM-30 and TVG-8M in Donetsk city Boiler house Ward # 14-67

/119/ Report about Air Protection for 2010 Order of the State Statistics Committee Approved 21.06.2010 № 233

/120/ Report about Air Protection for the first quarter of 2011 Order of the State Statistics Committee Approved 21.06.2010 № 233

/121/ MCE "Donetskmiskteplomerezha". Boil. qr. DPI/245. Tel. 305-46-59

/122/ Gas volume corrector V25. INV # 430825

/123/ Gas meter G-600 РГК INV № 1933

/124/ Heat recovery unit (serial number №13)

/125/ heat meter Ultraheat 50 inv № 434332

/126/ Pressure sensor "Safir M" Model 5051. # 1115791

/127/ Gas volume meter. Universal-01 # 6717

/128/ Pressure sensor "Safir M" Model 5430. # 12634426

/129/ Pressure sensor "Safir M" Model 5420. # 11296252

/130/ Gas volume corrector V25. INV # 05122

/131/ logbook ward 245

/132/ Energy resources log book

/133/ MCE "Donetskmiskteplomerezha". Voroshulovskyi heat district. Boiler qr. # 191a

/134/ heat meter Ultraheat 50 inv № 430656

/135/ Heat recovery unit (serial number №8)

/136/ Heat recovery unit (serial number №9)

/137/ heat meter Ultraheat 50 inv № 430657

/138/ Energy resources log book

/139/ Gas volume meter. NVP "GREMPIS". Universal-01 Serial № 6719.

/140/ Pressure sensor "Safir M" Model 5420. serial number 12472451 inv № 430184

/141/ Pressure sensor "Safir M" Model 5430. serial number 12682439№ 430121

/142/ Pressure sensor "Safir M" Model 5050. serial number 02173171

/143/ Gas volume corrector V25. INV # 430886 serial number № 05144

/144/ Gas meter G 400 # 0151

/145/ MCE "Donetskmiskteplomerezha". Kyiv heat district. Boiler qr. # 287

/146/ Heat recovery unit (serial number №2)

/147/ heat meter Ultraheat 50

/148/ Heat recovery unit (serial number №1)

/149/ heat meter Ultraheat 50

/150/ Gas volume corrector V25. serial number 04106

/151/ Gas meter LGK 650 serial № 8768

/152/ Gas volume meter. Universal-01 INV № 433413 serial number 2256

/153/ Heat utilizer log #2,3

/154/ Energy recourses log book

/155/ MCE "Donetskmiskteplomerezha" Boiler KMR. Kyiv heat district.

/156/ Heat recovery unit (serial number №14)

/157/ Heat recovery unit (serial number №11)

/158/ Gas volume corrector V25. INV №430937 serial number №04154

/159/ Gas meter G-650 serial number №8752 INV №430421

/160/ Passport Pressure sensor "Safir M" serial number 10456710

/161/ Gas meter Safir 5415 passport, serial number 10456710 Gas meter Safir 5415 passport, serial number 09903374

/162/ Gas meter Safir 5050 passport, serial number 01156162

/163/ Energy recourses log book

/164/ Gas volume meter. Universal-01 INV № 433413 serial number 5657

Persons interviewed:

List persons interviewed during the verification or persons that contributed with other information that are not included in the documents listed above.

/1/ Skoryk Valentina – Engineer of production-and-technical department, MCE “Donetskmiskteplomerezha”

/2/ Borovskyy Vadym Vyacheslavovych - Manager of production-and-technical department, MCE “Donetskmiskteplomerezha”

/3/ Pyotr Apostolaka – engineer, “VEMA S.A.”

/4/ Kucherenko Karina - engineer, “VEMA S.A.”

/5/ Dragan Aleksandr - boiler-house master

/6/ Shulgina Galina – boiler-house machinist

/7/ Andriyenko Andrei– boiler-house master

/8/ Marchenko Valentina - boiler-house machinist

/9/ Mantulenko Vladimir – boiler-housemaster

/10/ Sergienko Vasiliy– boiler-house master

/11/ Gunchak Valentina – boiler-house machinist

/12/ Verba Irina – boiler-house machinist

/13/ Sidorkina Irina – boiler-house master

/14/ Sidorenko Ludmila - boiler-house machinist

/15/ Tkachenko Vyacheslav - boiler-house master D

/16/ DombrovskayaTatyana - boiler-house machinist

APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

VERIFICATION PROTOCOL

Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	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?	Written project approvals by Switzerland and Ukraine have been issued by the DFPs of those Parties when submitting the first verification report for publication in accordance with paragraph 38 of the JI guidelines. (They are listed among Category 1 Documents in the Reference section of this report)	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	The abovementioned written approvals are unconditional constituting the authorization by the DFPs of the legal entity to participate in the JI project under consideration	OK	OK
Project implementation				
92	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?	The project has been implemented in accordance with the PDD which was positively determined by BVC. Determination of the project is deemed final. The project was initiated in 2004. It provides for rehabilitation of centralized heat supply system in Donetsk city, including boiler and heat distribution network equipment replacement and rehabilitation. The project “Rehabilitation of the District Heating System in Donetsk City” covers 16 boiler-houses with 56 boilers and 114.84 km of heat distributing networks.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		The project ensures increase in efficiency of fuel consumption for greenhouse gas emissions reduction with respect to current practice. Such reduction of fuel consumption will be resulted from increase of the boiler efficiencies and reduction of heat losses in heat supply networks. Starting date of the crediting period was the date when first generated ERUs occur, namely: January 01, 2005.		
93	What is the status of operation of the project during the monitoring period?	Project equipment has been installed with minor deviations from the schedule and is fully operational. During the reporting period 10 heat recovery units were installed and are operational at 8 boiler houses; 1024 m of heat distribution networks were replaced and modernized. It has been seen on site and can be proved by the verification team.	OK	OK
Compliance with monitoring plan				
94	Did the monitoring occur 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 System is in place and operational. Monitoring of GHG emission reductions occurred basically in accordance with the determined Monitoring Plan included in the PDD regarding which the determination has been deemed final. **CAR 02.** Please, remove the description of the AM0044 methodology from the MR as neither of its	CAR02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		elements are used for baseline setting and monitoring		
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, 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?	Among the key factors that were taken into account for calculating the emission reductions there are: • high priority of heat supply sector for the national energy saving policy • high price of the fuel, in particular natural gas lack of monitoring devices for heat and heat-carrier consumption in the municipal boiler-houses, and others (For more detailed information, please, refer to Section 3.4 of the present report)	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	All the data sources used for calculating emission reductions are clearly identified, reliable and transparent. They are listed and classified in the MR Section B.2.1 and Annex 1 Data applied for calculation of emission reductions are presented in Section B.2.1 (List of constant values, variables and given values) and Annex 1 (Data), Annex 2 (Calculation of CO2 emission reductions in the system of Municipal commercial enterprise “Donetskmiskteplomerezha” and plan of project measures implementation), Annex 3 (Monitoring of gas meters). Table in the Section B.2.1 contains all parameters necessary for calculation of emission reduction in this monitoring Report. These include: - amount of gas consumed by boiler houses in in baseline and monitoring period; - heat value of natural gas by supplier’s certificates;	CL14 CAR06 CAR08 CAR09	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		- daily reports of the Meteorological Center; - statistics of Municipal commercial enterprise "Donetskmiskteplomerezha"; - applied heat-transfer value, taken from State Building Norms; - IPCC data for natural gas emission factor. Calculation of emission reduction was carried out on the excel spreadsheet. The results are summarised in the MR Section D. **CL 14.** Please, explain what parameters in Table 7 and historical data in Table 8 as well as the values presented in those tables, refer to. **CAR 06.** Please, add Gas Supplier to the list of the Third Parties involved as it provides gas chemical characteristics. **CAR 08.** Please, indicate in Annex 3 the units in which diameter and length of the tubes are measured. **CAR 09.** The length of isolated tubes stated in Statements on the works execution concerning the commissioning of the heat supply networks in the monitoring period submitted on the verifier' request doesn't coincide with that presented in Annex3. Please, check this and make corrections respectively.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
95 (c)	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?	CO2 emission factor for natural gas is used for calculating the emission reductions. Its choice has been appropriately justified	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner. **CL 11.** Please, explain in what way the baseline and ERU quantity was adjusted in the current monitoring report. **CL 16.** Please, provide an exemplary calculation of the gas saving for the boiler house 14-67 in the current monitoring period **CAR 03.** The current MR refers to the period from 01/10/2010 to 30/06/2011, consequently, calculations must be made for the specific period, not a year. (p.5) This information should be submitted to an AIE along with the Monitoring Report, not a Verification Report. Please, make due corrections to the MR. **CAR 04.** There is inconsistency in figures stating the total gas consumption in the monitoring period (Please, refer to Table 5, 6, 7 of the MR) Please, make due	CL11 CL16 CAR03 CAR04 CAR05 CAR10	OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		corrections. **CAR 05.** Please, indicate the monitoring period, not the project years throughout the MR including the names of the tables. **CAR 10.** Please, provide ER calculation spreadsheet		
Applicable to JI SSC projects only				
96	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?	The relevant threshold to be classified as JI SSC project was not exceeded during the monitoring period under consideration on an annual average basis.	OK	OK
Applicable to bundled JI SSC projects only				
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	N/A	N/A	N/A
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/A	N/A	N/A
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?			
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	The only revision of the determined Monitoring Plan which is explicitly indicated in the MR reads: During the monitoring period at Municipal commercial enterprise "Donetskmiskteplomerezha" 11 gas meters were replaced. The reason of meters replacement was state verification that should be once in 2 years, for carrying out continual monitoring, meters were replaced with already calibrated at state verification meters. Replaced meters were sent to state verification".	OK	OK
99 (b)	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?	The proposed revision improves the accuracy of information collected and insures the continuous monitoring.	OK	OK
Data management				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality	The implementation of data collection procedures is in accordance with the determined monitoring plan and is an integral part of the operational routine at the	CAR01 CAR14	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	control and quality assurance procedures?	Municipal commercial enterprise "Donetskmiskteplomerezha"; including quality control and quality assurance procedures existing within the Quality Management System in accordance with the requirements of DSTU ISO 9001-2009 series of standards. This is proven by the Certificate No. UA 2.038.05031-10 dated 20/08/2010, valid till 20/08/2015 issued by the UkrSEPRO Certification System. Besides, three stuff members of MCE "Donetskmiskteplomerezha" conducting the internal audits under the current project hold "Specialist in the field of Quality Management Systems" certificates authorised and issued by TUV Rheinland Ukraine. **CAR 01.** Please, describe the automatic data collection system and a system of data saving and archiving, add it to the MR. **CAR 14.** References for the documents used as the data sources should be provided in the MR.		
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Control and monitoring in the current monitoring period comes to measurement of fuel consumption only. Measuring equipment was calibrated by Donetsk center of standardization, metrology and certification. **CAR 07.** It is stated in the MR that 11 new meters were installed. Please, provide information as for the date,	CAR07 CAR11	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		location, inventory numbers and reason of their installation. **CAR 11.** Please, update Annex "Measuring equipment that was installed during the monitoring period 01.10.10 – 30.06.11"(Please, note! there is a mistake in providing monitoring period in the name of this Annex) taking into consideration the verifiers' remarks and findings made during the site visit.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidence and records used for the monitoring maintained are in a traceable manner. **CL 01.** Please, provide Conclusions of the Expert Commission and project documentation referring to the installation of the heat utilizers. **CL 02.** Please provide passports for heat utilizers. **CL 03**. Please provide data concerning the quantity of heat and hot water consumers during the current monitoring period. **CL 04.** Please, provide information of the Hydro meteorological Center on the internal temperature during the current monitoring period **CL 05.** Please, provide the certificates for gas from the gas Supplier.	CL01 CL02 CL03 CL04 CL05 CL06 CL07 CL08 CL09 CL10 CL12 CL13 CL15 CL17 CAR12	OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 06. Please, provide documentary evidence on the heating period referring to the current monitoring period. **CL 07.** Please, provide Statement on the works execution concerning the commissioning of the heat supply networks. **CL 08.** Please, provide the schedules of the equipment stoppage for the scheduled maintenance. **CL 09.** Please, explain whether there were any complaints concerning the heat quality supply during the current monitoring period. **CL 10.** Please, explain whether the internal temperature has ever been measured during the current monitoring period. **CL 12.** Please, provide documentary evidence proving that the heated area hasn't changed since 2010. **CL 13.** Please, explain the origin of the correction coefficient 1% presented in the heading line of Table 5. Please, demonstrate how the correction was made by providing calculations for a definite boiler house. **CL 15.** Please, provide contracts with all Third Parties involved in the project to prove the delivery of their		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		products/services during the current monitoring period. **CL 17.** Please, provide explanation as for the removing electricity meters from the Annex that contains the project equipment. Add this explanation to the MR. **CAR 12.** Though being existed and could be proved by the verification team during the site visit the internal audit procedure is presented insufficiently in the MR Please, provide the more detailed description of the internal audit procedure existing at the enterprise.		
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. The operational and management structure that the project participants apply in implementing the monitoring plan is in accordance with the determined Monitoring Plan (refer to the MR Section B.2). Responsibilities of the persons are explicitly indicated in the MR. **CAR 13.** Please, provide the description of the data processing and archiving system.	CAR13	OK
Verification regarding programs of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/A	N/A	N/A
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/A	N/A	N/A
104	Does the monitoring period not overlap with previous monitoring periods?	N/A	N/A	N/A
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/A	N/A	N/A
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: − The types of JPAs; − The complexity of the applicable technologies and/or measures used; − The geographical location of each JPA;	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− The amounts of expected emission reductions of the JPAs being verified; − The number of JPAs for which emission reductions are being verified; − The length of monitoring periods of the JPAs being verified; and − The samples selected for prior verifications, if any?			
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	N/A	N/A	N/A
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	N/A	N/A	N/A
109	Is the sampling plan available for submission to the secretariat for the JISC.s ex ante assessment? (Optional)	N/A	N/A	N/A
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the JISC of the fraud in writing?			

Table 2 Resolution of Corrective Action Requests and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CL 01. Please, provide Conclusions of the Expert Commission and project documentation referring to the installation of the heat utilizers	101 (c)	Conclusions of the Expert Commission and project documentation referring to the installation of the heat utilizers were provided to verification team by Municipal commercial enterprise Donetskmiskteplomerezha" after site visit.	The required data has been provided. CL 01 is closed
CL 02. Please provide passports for heat utilizers	101 (c)	Passports for heat utilizers were provided to verification team by Municipal commercial enterprise Donetskmiskteplomerezha" after site visit.	CL02 is closed based on the required information provided.

CL 03.Please provide data concerning the quantity of heat and hot water consumers during the current monitoring period	101 (c)	Data concerning the quantity of heat and hot water consumers during the current monitoring period was provided to verification team by Municipal commercial enterprise Donetskmiskteplomerezha" after site visit.	CL03 is closed based on the required information provided.
CL 04. Please, provide information of the Hydro meteorological Center on the internal temperature during the current monitoring period	101 (c)	Hydrometeorological centre provided information on the internal temperature to Municipal commercial enterprise Donetskmiskteplomerezha" in form of Statement about results of temperature measurements inside heated space. To verification team as example was provided "Statement about results of temperature measurement inside heated space in Budenovsky heat district for March 2011".	CL04 is closed based on the required information provided.
CL 05. Please, provide the certificates for gas from the gas Supplier	101 (c)	Certificates for gas from the gas Supplier were provided to verification team by Municipal commercial enterprise "Donetskmiskteplomerezha".	CL05 is closed based on the required information provided.
CL 06. Please, provide documentary evidence on the heating period referring to the current monitoring period.	101 (c)	Beginning and ending of heating period were defined by city mayor order № 464 about beginning of heating period and № 214 about ending of heating period and were provided to verification team in electronic form.	CL06 is closed based on the required documentary evidence provided to the verification team.

CL 07. Please, provide Statement on the works execution concerning the commissioning of the heat supply networks	101 (c)	Statement on the works execution concerning the commissioning of the heat supply networks was provided to verification team.	CL07 is closed based on the required documents provided.
CL 08. Please, provide the schedules of the equipment stoppage for the scheduled maintenance	101 (c)	"Stoppage graphics of hot water supply for the scheduled maintenance 2011" was provided to verification team.	CL08 is closed based on the required documents provided.
CAR 01. Please, describe the automatic data collection system and a system of data saving and archiving, add it to the MR	101 (a)	Information-analytical system "Accounting and control of energy resources consumption, DEB&FR (department of energy balance and fuel resources)" introduced into service in August 2009. The system allows to analyze data, draught, actual gas, water and electricity consumption, data about limits. Information was added to the Monitoring report version 02. See Section B. "Information about data preservation and protection in electronic form" page 11.	CAR 01 is closed based on the description provided.
CAR 02. Please, remove the description of the AM0044 methodology from the MR as neither of its elements are used for baseline setting and monitoring	94	Description of the AM0044 methodology was removed from Monitoring report version 02.	CAR 02 is closed based on the corrections made to the MR

CL 09. Please, explain whether there were any complaints concerning the heat quality supply during the current monitoring period	101 (c)	If the temperature does not meet standard due to a fault of Municipal commercial enterprise "Donetskmiskteplomerezha" which confirmed by acts, cost recount of unaccorded services take place. Payments return to population because of unaccorded services for heat and hot water supply for the reported period equal to 1.81% of the planned charges. More detail information indicated in Monitoring report version 02 section C.5 "Complaints concerning the heat quality supply" page 20.	CL09 is closed based on the explanations provided.
CL 10. Please, explain whether the internal temperature has ever been measured during the current monitoring period	101 (c)	Responsible persons appointed by chief of boiler-house and heating district that are considered in the project, conducted temperature metering inside the heating space 4 times in month during the heating period. More detail information indicated in monitoring report version 02 section B.8 "Internal temperature measurements" page 21, Monitoring report version 02.	CL10 is closed based on the explanations provided.

CL 11. Please, explain in what way the baseline and ERU quantity was adjusted in the current monitoring report	95 (d)	The project applies specific approach based on the continuous measurement of the fuel consumption and adjustment of baseline to parameter changes in reporting period. For more detail information see page 4 in Monitoring, report version 02 .	CL11 is closed based on the explanations provided.
CAR 03. The current MR refers to the period from 01/10/2010 to 30/06/2011, consequently, calculations must be made for the specific period, not a year. (p.5) This information should be submitted to an AIE along with the Monitoring Report, not a Verification Report. Please, make due corrections to the MR	95 (d)	Corrections were made in Monitoring report, version 02.	CAR 03 is closed based on the corrections made to the MR
CL 12. Please, provide documentary evidence proving that the heated area hasn't changed since 2010	101 (c)	Documentary evidence that the heated area has not changed since 2010 presented provided by Municipal commercial enterprise Donetskmiskteplomerezha" in documentary form as "Characteristics of the heat supply objects Municipal commercial enterprise "Donetskmiskteplomerezha" "for the period October-June 2010-2011".	CL12 is closed based on the required documentary evidence provided to the verification team.
CAR 04. There is inconsistency in figures stating the total gas consumption in the monitoring period (Please, refer to Table 5, 6, 7 of the MR) Please, make due corrections.	95 (d)	Inconsistency in figures stating the total gas consumption in Table 5, 6, 7 was corrected in monitoring report version 02.	CAR 04 is closed based on the corrections made to the MR

CAR 05. Please, indicate the monitoring period, not the project years throughout the MR including the names of the tables	95 (d)	Correction was made at pages 17, 26 in monitoring report version 02.	CAR 05 is closed based on the due corrections made to the MR
CL 13. Please, explain the origin of the correction coefficient 1% presented in the heading line of Table 5. Please, demonstrate how the correction was made by providing calculations for a definite boiler-house	101 (c)	Volume of natural gas consumption may be adjusted by error of measuring equipment 1 % according to the principle of conservatism. Consumption of natural gas applied for measurement of Project emissions was adjusted by error of gas meters and for each boiler-house. More detail information indicated in Monitoring report, page 19 in version 02.	CL13 is closed based on the explanations provided.
CL 14. Please, explain what parameters in Table 7 and historical data in Table 8 as well as the values presented in those tables, refer to.	95 (b)	Explanation was made in Table 7 and Table 8 at page 24 in Monitoring report, version 02.	CL14 is closed based on the explanations provided.
CAR 06. Please, add Gas Supplier to the list of the Third Parties involved as it provides gas chemical characteristics	95 (b)	Gas Supplier OJSC "Donetskmiskgaz" was added to the list of the Third Parties was added in Monitoring report, version 02.	CAR 06 is closed based on the due amendment made to the MR
CL 15. Please, provide contracts with all Third Parties involved in the project to prove the delivery of their products/cervices during the current monitoring period	101 (c)	Contracts with all Third Parties involved in the project were provided to verification team: contract with hydrometeorological centre, contract with LLC TOP-ENERGY installation of heat utilizes, and contract with "Donetskmiskgaz". to prove the delivery of their products/services during the current monitoring period.	CL15 is closed based on the required documents provided.

CAR 07. It is stated in the MR that 11 new meters were installed. Please, provide information as for the date, location, inventory numbers and reason of their installation	101 (b)	Information about 11 new meters was added at p.12 in Monitoring report, version 02.	CAR07 is closed based on the required information provided and the MR amended.
CAR 08. Please, indicate in Annex 3 the units in which diameter and length of the tubes are measured	95 (b)	Units, in which diameter and length of the tubes are measured, were changed in Annex 3.	CAR08 is closed based on the required changes made to the MR.
CAR 09. The length of isolated tubes stated in Statements on the works execution concerning the commissioning of the heat supply networks in the monitoring period submitted on the verifier' request doesn't coincide with that presented in Annex3. Please, check this and make corrections respectively	95 (b)	Length of isolated tubes was changed in Annex 3.	CAR09 is closed based on the required changes made to the MR.
CL 16. Please, provide an exemplary calculation of the gas saving for the boiler house 14-67 in the current monitoring period	95 (d)	Exemplary calculation of the gas saving for the boiler house 14-67 in the current monitoring period was provided in electronic form.	CL16 is closed based on the required calculation provided to the verification team.
CAR 10. Please, provide ER calculation spreadsheet	95 (d)	ER calculation spreadsheet was provided in electronic form as Annex 2.	CAR10 is closed based on the required supplementary documents provided.
CAR 11. Please, update Annex " Measuring equipment that was installed during the monitoring period 01.10.10 – 30.06.11"(Please, note! there is a mistake in providing monitoring period in the name of this Annex) taking into consideration the verifiers' remarks and findings made during the site visit	101 (b)	Corrections were made in Annex 4 name of annex was changed to "Annex 4 Measuring equipment".	CAR 11 is closed based on the due corrections made to the MR

CL 17. Please, provide explanation as for the removing electricity meters from the Annex that contains the project equipment. Add this explanation to the MR	101 (c)	During the monitoring period 01/10/2010 - 30/06/2011 at boiler houses Municipal commercial enterprise "Donetskmiskteplomerezha" were insignificant measures to reduce electricity consumption, therefore, these measures were not planned by enterprise for this period of equipment modernization see page 4 in Monitoring report version 02.	Required information was provided and added to the MR. CL17 is closed.
CAR 12. Though being existed and could be proved by the verification team during the site visit the internal audit procedure is presented insufficiently in the MR Please, provide the more detailed description of the internal audit procedure existing at the enterprise.	101 (c)	The description of the internal audit procedure existing at the enterprise was provided to the verification team and added to the MR version 02.	The description of the internal audit procedure existing at the enterprise was provided to the verification team and added to the MR. Issue is closed.
CAR 13. Please, provide the description of the data processing and archiving system.	101 (d)	The data processing and archiving system is described in the MR version 02.	CAR13 is closed based on the description of the data processing and archiving system existing at the enterprise provided to the verification team and added to the MR.
CAR 14. References for the documents used as the data sources should be provided in the MR.	101 (a)	Required references were added as footnotes to the MR version 02.	Required references were inserted to the MR. CAR14 is closed.