



# VERIFICATION REPORT

## RME “DONETSKTEPLOCOMUNENERGO”

# VERIFICATION OF THE REHABILITATION OF THE DISTRICT HEATING SYSTEM IN DONETSK REGION

FOURTH PERIODIC FOR 2010

REPORT No. UKRAINE-VER/0227/2011

REVISION No. 01

BUREAU VERITAS CERTIFICATION



## VERIFICATION REPORT

Date of first issue: 07/04/2011	Organizational unit: Bureau Veritas Certification Holding SAS
Client: RME "Donetskteplocomunenergo"	Client ref.: Mr. Vasyl Vorotyntsev

## Summary:

Bureau Veritas Certification has made the 4th periodic verification of the project "Rehabilitation of the District Heating System in Donetsk Region" project of RME "Donetskteplocomunenergo" located in Donetsk, Ukraine, 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 generating GHG emission reductions. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 438860 tons of CO<sub>2</sub>eq for the monitoring period of 01.01.2010 to 31.12.2010.

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/0227/2011	Subject Group: JI
Project title: "Rehabilitation of the District Heating System in Donetsk Region"	
Work carried out by: Oleg Skoblyk – Team Leader, Lead Verifier Rostislav Topchiy – Team Leader, Verifier Vitaliy Minyaylo – Team Member, Verifier trainee	
Work reviewed by: Ivan Sokolov – Internal Technical Reviewer	
Work approved by: Flavio Gomes – Operational Manager	
Date of this revision: 19/05/2011	Rev. No.: 02
Number of pages: 46	

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## 1 INTRODUCTION

RME “Donetskteplocomunenergo” has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Rehabilitation of the District Heating System in Donetsk Region" (hereafter called “the project”) at Donetsk town and Donetsk region, Ukraine.

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 and/or corrective 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:

Oleg Skoblyk

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Rostislav Topchiy

Bureau Veritas Certification Team Member, Climate Change Verifier



Minyaylo Vitaliy  
Bureau Veritas Certification, Team Member, Climate Change Verifier  
trainee

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) submitted by “Institute of Engineering Ecology” and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology (if applicable) and/or 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. Answering the AIE’s CARs and CLs project participant has issued new version of the Monitoring Report version 03 due to release of the Order of the National Environmental Investment Agency № 43 dated 28/03/2011.

The verification findings presented in this report relate to the Monitoring Report version(s) 03 and project as described in the determined PDD.



## 2.2 Follow-up Interviews

On 29-30/03/2011 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 “Institute of Engineering Ecology” and RME “Donetskteplocomunenergo” and MCE “Donetskmiskteplomerezha” were interviewed during site visit (see References for the list of interviewed persons). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

Interviewed organization	Interview topics
RME “Donetskteplocomunenergo” MCE “Donetskmiskteplomerezha”	<ul style="list-style-type: none"> <li>➤ Organizational structure.</li> <li>➤ Responsibilities and authorities.</li> <li>➤ Training of personnel.</li> <li>➤ Quality management procedures and technology.</li> <li>➤ Implementation of equipment (records).</li> <li>➤ Metering equipment control.</li> <li>➤ Metering record keeping system, database.</li> </ul>
Institute of Engineering Ecology	<ul style="list-style-type: none"> <li>➤ Baseline methodology.</li> <li>➤ Monitoring plan.</li> <li>➤ Monitoring report.</li> <li>➤ Deviations from PDD.</li> </ul>

## 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 AIE 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.

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 01 Corrective Action Requests, 05 Clarification Requests, and 01 Forward Action Requests.

The number between brackets at the end of each section corresponds to the DVM paragraph (see references).

#### **3.1 Project approval by Parties involved (90-91)**

Written project approval by Netherlands and Ukraine has been issued by the DFP of that Party when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest.

The abovementioned written approval is unconditional.

#### **3.2 Project implementation (92-93)**

The project main goal is fuel consumption reduction, in particular reduction of natural gas (which is imported to Ukraine), coal and oil consumption, by means of district heating system rehabilitation in Donetsk Region, including boiler and distribution network equipment replacement and rehabilitation, and installation of combined heat and power production plants. Such reduction of fuel consumption will result in decrease of greenhouse gas emissions (CO<sub>2</sub> and N<sub>2</sub>O). The purpose of the project is sustainable development of the region through implementation of energy saving technologies.

Donetsk region's district heating (DH) utility (system of heat supply enterprises) supplies and sells heat energy in forms of heat, hot water



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and steam, to local consumers, namely households, municipal consumers and state-owned organizations. It is a natural monopolist of heat production in the region. Heat supply market in the region is stable for years.

The project "Rehabilitation of the District Heating System in Donetsk Region" was initiated in 2004 to rehabilitate Donetsk region's district heating system, including boiler and distribution network equipment replacement and rehabilitation, and installation of combined heat and power production plants (CHP). The project "Rehabilitation of the District Heating System in Donetsk Region" consists of two parts: Rehabilitation of Donetsk Region and Rehabilitation of Donetsk City. 286 boiler-houses with 1297 boilers and 1026 km of heat distributing networks are involved in the rehabilitation of Donetsk Region and 39 boiler-houses with 193 boilers and 248 km of heat distributing networks are involved in the rehabilitation of Donetsk City. In total: 325 boiler-houses with 1490 boilers and 1274 km of heat distributing networks are involved in the project. This is the large part of Donetsk regional DH system, and project may be expanded by including the other DH objects in the region.

Installation of cogeneration units at 10 boiler houses (12 gas engines, 0.5-0.63 MW each) in Donetsk region with total installed capacity 7.3 MW and at 6 boiler houses in Donetsk city (6 gas engines, 0.38 - 0.5 MW each) with total installed capacity 2.88 MW, in sum 18 gas engines with total installed capacity 10.18 MW, is incorporated into the project. Machines made by JSC "Pervomaiskdieselmash" (Ukraine), Deutz (Germany) and Jenbacher (Austria) are considered as potential candidates for installation.

The project employs the increase in fuel consumption efficiency to reduce greenhouse gas emissions relative to current practice. After complete project implementation over 15 million Nm<sup>3</sup> of natural gas and 50 thousand ton of coal will be saved annually. Such reduction of fuel consumption is based on increase of the boiler efficiencies, reduction of heat losses in networks and CHP installation. The following activities will ensure fuel saving:

- Replacement of old boilers by the new highly efficient boilers;
- Upgrading of boilers,
- Upgrading of boilers' burners;
- Installation of heat utilizers, including condensation ones;
- Switching of boiler-houses from coal and fuel oil to natural gas;
- Improving of the network organization, application of the new insulation and the pre-insulated pipes;
- Installation of combined heat and power plants;
- Installation of frequency controllers at smoke exhauster and hot water pumps engines.






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The actual operation of the proposed project is presented bellow.

Implemented energy saving measures	Volume of performed works (number of boilers, length of network replacement, etc.)		
	2003-2009	2010	Total
<b>RME "Donetskteplocomunenergo"</b>			
Boilers replacement			
KCBa-1,25	97	4	101
KCBa - 2,5	59		59
KCBa - 0,63	35	2	37
KCBa -1,0	5		5
KBГ - 6,5	5		5
KBГ-4,65	2		2
KBT - 1	13		13
KOLVI - 500	2		2
KCB-1	1		1
RBI - 3,32	4		4
RBI - 8900	4		4
KCT-100	5		5
KOCBД - 0,5	2		2
KCBД-1,25	2		2
АОГВ-96	9		9
АОГВ -100	4		4
П - 0,5 - 0,8 ГН	8		8
KBГМ - 1,6	1		1
CHГ-44	6		6
Ferrolі-100	6		6
ДКВр - 6,5	1		1
Total	270	6	276
Replacement of network, m	114894	25035	139929
Frequency controllers installation	183	3	186
Implementation of Individual Heat Supply Stations with heat exchangers replacement	76		76
Implementation of CHP units	1		1
Switching of boiler-houses to gas	20		20
Switching of boiler-houses' load to the more effective	42	1	43



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ones			
Implementation of heat utilizers	9		9

MCE "Donetskmiskteplomerezha"			
Boilers replacement			
KBAHT-1,5	17		17
KBAHT-0,8	2		2
KATOH-0,8	1		1
KATOH-1,5	9		9
KB-0,1	2		2
KГПУ	1		1
KBH-0,29	2		2
Total	34		34
Replacement of network, m	25837	2507	28344
Frequency controllers installation	145	71	216
Implementation of CHP units	1		1
Switching of boiler-houses to gas			
Switching of boiler-houses' load to the more effective ones	6		6
Implementation of heat utilizers	3	8	11

### 3.3 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 and is so listed on the UNFCCC JI website.

For calculating the emission reductions or enhancements of net removals, key factors, such as Fuel consumption at boiler-houses (for natural gas in 1000 m<sup>3</sup>, for coal in ton, for heavy oil and light oil in ton, manually recorded every day), Average annual Heating Value of fuel (MJ/m<sup>3</sup> for natural gas, MJ/kg for coal, heavy oil (only for Slov'yansk) and light oil (only for Vuglegirsk), data are provided by natural gas suppliers usually 3 times per month, quality certificate is given by coal and heavy oil supplier's for every consignment), Average daily outside temperature during the heating season (°C (K), recorded every day of heating season), Average inside temperature during the heating season (°C (K), recorded




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once per heating season), Number of Customers (Customers update the contracts for hot water supply service with balance-owners (ZhEK) once per year. ZhEKs give to RME "Donetskteplocomunenergo" personal accounts of customers once per month. Contracts with organizations and legal entities are concludes directly with RME "Donetskteplocomunenergo", they are updated once per year), Heating area (total, m<sup>2</sup> the information is collected at the sales departments of district heating productive units of RME "Donetskteplocomunenergo" in every town by the certificates of owners or balance-owners (ZhEK) in accordance with technical passport of building. Total area with balconies and stairs and Heating area are displayed in the special journal.), Average heat transfer factor of heated buildings in the base year (W/m<sup>2</sup>\*K, heat transfer factor is recorded ones per year at recording of connection or disconnection of any heating area to boiler-houses included in project), Heating area of buildings (previously existed in the base year) with the renewed (improved) thermal insulation in the reported year (m<sup>2</sup>, once per year), Heating area of newly connected buildings (assumed with the new (improved) thermal insulation) in the reported year (m<sup>2</sup>, once per year), Heat transfer factor of buildings with the new thermal insulation (W/m<sup>2</sup>\*K), Duration of the heating period (hours, once per year), Duration of the hot water supply period (hours, once per day), Maximum connected load to the boiler-house, that is required for heating (MW, once per year), Connected load to the boiler-house, that is required for hot water supply service (MW, once per year), Standard specific discharge of hot water per personal account (kWh/h, once per year), Carbon emission factor (for natural gas, coal and heavy oil kt CO<sub>2</sub>/TJ once per year), Recalculating factor for average load during heating period (once per year), Scheduled electric power production by the all new CHP units and electric power generation by the installed new CHP units in reported year (MWh), Scheduled heat power production by the all new CHP units and heat power generation by the installed new CHP units in reported year (MWh), Electric power consumption by the boiler-houses where energy saving measures are scheduled to be implemented (MW\*h, every month), 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 were taken into account, as appropriate.

For gas consumption measurement the following gas flow meters are used:

Type of Gas flow meters	Manufacturer		
G - 1600 -ЛГК – 200	Ivano-Frankivsk "Promprylad"	plant	JSC
G – 160- ЛГК - 80	Ivano-Frankivsk "Promprylad"	plant	JSC



G – 250- ЛГК – 100	Ivano-Frankivsk "Promprylad"	plant	JSC
G - 400 - ЛГК- 150	Ivano-Frankivsk "Promprylad"	plant	JSC
G - ЛГК - 150 – 650	Ivano-Frankivsk "Promprylad"	plant	JSC
G - РГК - 400 - 250	Ivano-Frankivsk "Promprylad"	plant	JSC
GMS- G16 ... G250	"Arsenal" plant, Kiev city		
РГК-40 ... РГК-1000	Ivano-Frankivsk "Promprylad"	plant	JSC
ЛГК-80 ... ЛГК-200	Ivano-Frankivsk "Promprylad"	plant	JSC
Flow measurement complex "Potok"	SPE "Measurement systems", Dnipropetrovsk city		
Kurs - 01 - G100...1000	"Kurs" Ltd. Dnipropetrovsk city		
GSM 16-32	Germany		

For electricity consumption measurement the following electricity meters are used:

Type of electricity meters	Manufacturer
Merkuriy 230APT03CN Merkuriy 230APT02CN	Moscow "Intek" Ltd
CA4Y - И672М	"LEMZ" St.Petersburg, Russia
CP4Y-И673М	"LEMZ" St.Petersburg, Russia
CO-22 6706	Ukraine
CO - 449 M1 - Y	Ukraine
CT - ЭА - 01	Zaporizhzhia
NIK2303APK1	"Nik-elektronika" Ltd., Kyiv
CE - 302	Stavropol "Energomera"
SL - 7000	France
ЕАО5KALX - R4B- 4	Russia, Moscow "LSTER"
ЦЭ6803В	"Energomira" Russia- Ukraine
ACE - 6000	France
Актарис SI - 700	Ukraine
CP45002	St. Petersburg, Russia
CA4Y - И45	"LEMZ" St.Petersburg, Russia
ИПСА4У-И672М	St. Petersburg, Russia
A1815RALQ	Russia
Ф68700	"LEMZ" St.Petersburg, Russia
CA 3У-И670	"LEMZ" St.Petersburg, Russia

For measurement at the CHP unit the following meters are used



Purpose	Type	Serial No.	Manufacturer
Power production measurement	CA4Y-И672M	971405	Leningrad "LEMZ"
Heat energy production measurement	CALMEX N2	1320-06 1319-06	
Gas consumption measurement	G-160 ЛГК – 80 1:20 0,2 Ex	5861	Ivano-Frankivsk plant JSC "Promprylad"

The records are maintained on daily and annually basis, the boiler operation is statutory, so the chances of misstatement in the records are hereby low. In fact records are taken every 2 hours (manually) or semi-continuously where correctors are present (electronically), and after that manual daily summarizing record is performed. In both cases (manual or semi-continuous) monitoring is within the PDD version 8 where records are required every 2 hours.

Monitoring equipment of this project is sections of relating energy resources measurements. The main element of the measurement section is a primary transducer (meter) that is subject to periodic inspection or calibration. Donetsk center of standardization, metrology and certification, Laboratory HES, Gorlovskiy CSM, Enakievskiy Gosstandart, Kramatorsk branch of Donetsk-standart-metrology, Makeevskiy branch of Donetsk-standart-metrology authorized body's, entitled to conduct inspection and calibration of measuring equipment is third party involved.

Data sources used for calculating emission reductions or enhancements of net removals, such as (plant records, reports of Metrological Centre, Statistics of RME "Donetskteplocomunenergo" and MCE "Donetskmiskteplomerezha", SNiP 2-3-79, State Buildings Norms, Rules of technical exploitation of heating equipment and networks, KTM 204 Ukraine 244-94, Final Report EBRD 2010 Development of the electricity carbon emission factors for Ukraine. Baseline Study for Ukraine) 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.

### 3.4 Revision of monitoring plan (99-100)

Not applicable.



### 3.5 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.

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.

Registration of Natural gas consumption at boiler houses of RME “Donetskteplocomunenergo” and MCE “Donetskteplomerezha is carried out by the following scheme:

1. All boiler-houses are equipped with gas flow meters.
2. Most of boiler-houses are equipped with automatic corrector for temperature and pressure. Gas consumption is registered automatically.
3. Beside this, every hour operator of a boiler house registers parameters of natural gas (temperature and pressure) in the paper journal “Journal of registration of boiler-house’s operation parameters”. These parameters are used to bring gas consumption to normal conditions. Natural gas consumption is measured by gas flow meter, installed at a boiler-house. Every day operator of a boiler house makes registration of daily gas consumption in the special paper journal.
4. Every day operators transfer values of gas consumption to calculating centers of the Production Branches of RME “Donetskteplocomunenergo” and MCE “Donetskteplomerezha”. United server installed at the MCE “Donetskteplomerezha” account center allows taking values of all controlled parameters for every day of monitoring period.
5. Every month the account centers transfer data to gas suppliers.

The Director General of the RME “Donetskteplocomunenergo”, Mr. Vasyl Vorotyntsev, appointed a responsible person, Ms. Victoriya Kucherenko, Deputy director on investments and strategic development of RME “Donetskteplocomunenergo”, for the implementation and management of the monitoring process at the RME “Donetskteplocomunenergo”. Ms. Kateryna Pahomova, senior engineer of perspective development department of RME “Donetskteplocomunenergo”, is responsible for data collection, measurements, calibration, data recording and storage.





The Director General of the MCE “Donetskmiskteplomerezha” Mr. Viktor Rogachev appointed a responsible person, Ms. Valentyna Skoryk, engineer of production department, for the implementation and management of the monitoring process at the MCE “Donetskmiskteplomerezha”. Mrs. Valentyna Skoryk is responsible for supervising data collection, measurements, calibration, data recording and storage.

Dr. Vladimir Gomon, Managing Engineer of the European Institute for safety, security, insurance and environmental technics, is responsible for baseline and monitoring methodology development.

Dr. Dmitri Paderno, Deputy director of the Institute of Engineering Ecology, is responsible for baseline and monitoring methodology development.

Ms. Kateryna Korinchuk, engineer of the Institute of Engineering Ecology, is responsible for data processing.

Manager of the JI project Ms. Victoriya Kucherenko controls and checks up the adequacy of the data collection mechanism and the reliability of parameters of the Monitoring plan and other information on project implementation.

Any problem occurring that concerns this project is to be reported immediately to the project manager, who takes the appropriate measures.

### **3.6 Verification regarding programmes of activities (102-110)**

Not applicable.

## **4 VERIFICATION OPINION**

Bureau Veritas Certification has performed the 4<sup>th</sup> periodic verification of the project «Rehabilitation of the District Heating System in Donetsk Region» Project in Ukraine, which applies the JI Specific approach. 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 Institute of Engineering Ecology 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 final PDD version



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08 and revised monitoring plan. 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 03 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 calculated without material 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 the following statement:

Reporting period: From 01/01/2010 to 31/12/2010

Baseline emissions	:	1405813	t CO <sub>2</sub> equivalents.
Project emissions	:	966952	t CO <sub>2</sub> equivalents.
Emission Reductions	:	438860	t CO <sub>2</sub> equivalents.

## 5 REFERENCES

### Category 1 Documents:

Documents provided by RME "Donetskteplocomunenergo" of the company that relate directly to the GHG components of the project.

- /1/ Monitoring Report, version 01, dated 18 March 2011
- /2/ Monitoring Report, version 02, dated 05 April 2011
- /3/ Monitoring Report, version 03, dated 18 May 2011
- /4/ Project Design Document, version 8, dated 28 of March 2008
- /5/ Letter of Approval from Ministry of Environmental Protection of Ukraine № 8883/10/10-07 dated 10.08.2007
- /6/ Letter of Approval from Ministry of Economic Affairs of Netherlands 2007JI03 dated 25 October 2007
- /7/ Excel spreadsheet of the emission reductions calculation
- /8/ Determination and Verification Manual, version 01
- /9/ Order of the National Environmental Investment Agency № 43 dated 28/03/2011

### Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

№	Name of the document
1.	Photo Impact Assessment (EIA) " Kyivskiy heat region of Donetsk. Technical upgrading of boiler kv.462. Modular unit GVP. 2010.
2.	Photo Conclusion of the state sanitary-epidemiological expertise. 05.03.02-07/74968 from 11.10.2010. " Kyivskiy heat region of Donetsk. Technical upgrading of boiler kv.462. Modular installation GVP "
3.	Photo Act of readiness object to exploitation of 30.12.2010 Technical upgrading of boiler kv.462.
4.	Photo Impact Assessment (EIA) "Installing electric boilers MEC-25 in the boilerhouse on Ussuriyska, 22. Donetsk "
5.	Photo Conclusion of the state sanitary-epidemiological expertise. 05.03.02-07/73065 from 06.10.2010. "Installing electric boilers MEC-25 in the boilerhouse on Ussuriyska, 22. Donetsk "
6.	Photo Permission for air emissions from stationary sources of MCE "Donetskmiskteplomerezha" № 1410136300-9 valid to 18.12.2012
7.	Photo Report on Air Protection in 2010 #2TP"vozduh" MCE "Donetskmiskteplomerezha"
8.	Photo Certificate of emission control workshop valid to 28 April 2013. MCE "Donetskmiskteplomerezha"



9.	Photo Protocol number 3 / 07 dated 14 February 2011, measuring the content of pollutants in emissions from stationary sources. State Environmental Inspectorate of the Donetsk region.
10.	Photo of the Act to verify compliance with environmental legislation 01/25/2011-14.02.2011 State Environmental Inspectorate of the Donetsk region.
11.	Photo Continued permit № 0550.09.14-40.30.0. Valid from 05/21/2009 to 21.05.2014
12.	Photo Environmental action plan in 2010.
13.	Photo Environmental action plan in 2011.
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27.	Photo Logbook "accounting TER". MR-2
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33.	Photo Passport sensor pressure "Safir M" № 08497445
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52.	Photo electricity meter number 770 891
53.	Photo electricity meter number 47 270
54.	Photo electricity meter number 110 570
55.	Photo electricity meter number 700 181
56.	Photo electricity meter number 154 529
57.	Photo electricity meter number 642 656
58.	Photo gas meter "Universal" № 5045
59.	Photo temperature controller number 4033
60.	Photo electricity meter number 009 346
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67.	Photo Passport transducer measuring temperature "CVP-01" № 7385
68.	Photo Passport pressure sensor "Safir M" № 12148910
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70.	Photo Passport pressure sensor "Safir M" № 11303225
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72.	Photo Passport pressure sensor "Safir M" № 11279215
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78.	Photo Repair Plan in 2011. 201 m-p Parkoviy
79.	Photo Repair Plan in 2011. kv.139
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83.	Photo Repair Plan for 2011. 201 m-p
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86.	Photo Act review of the accounting control to 1 kV 038 517 number from 07.02.2011
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88.	Photo verification certificate work measuring instrument Current transformer TPL-10U № 02/03-208 valid to to 16.04.2012
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115.	Photo electricity meter number 073981
116.	Photo gas volume calculator "Universal" № 2257 boiler kv. 581
117.	Photo heat exchanger TUV-30-14-695-30M PTVM boiler area "Krivozubova 4"
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121.	Photo Repair logbook boilershouse Krivozubova
122.	Photo Logbook of Accounting TER boilerhouse Krivozubova
123.	Photo Repair plan in 2010. boilerhouse Kv 462
124.	Photo Repair logbook kv. 462
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128.	Photo 3 boiler "mini Don"
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130.	Act of acceptance of completed works from 31.12.2010. Reconstruction of boiler installations with the introduction of flue gas heat recovery boilers to PTVM-30MK - 8 units and TVH-8M - 14 units
131.	Act of acceptance repaired, refurbished and modernized facilities № 243-247 from 27.12.2010 Reconstruction of boiler installations with the introduction of waste heat from flue gases of boilers PTVM-30MK number 4 - 2 units
132.	Act of acceptance repaired, refurbished and modernized facilities № 248-252 from 27.12.2010. Reconstruction of boiler installations with the introduction of waste heat from flue gases of boilers PTVM-30MK number 2 - 2 units boiler Kryvozubova
133.	Act of acceptance repaired, refurbished and modernized facilities № 253-257 from 27.12.2010. Reconstruction of boiler installations with the introduction of waste heat from flue gases of boilers PTVM-30MK number 5 - 2 units
134.	Act of acceptance repaired, refurbished and modernized facilities № 258-262 from 27.12.2010. Reconstruction of boiler installations with the introduction of waste heat from flue gases of boilers PTVM-30MK number 4 - 2 units kv.139
135.	Passport heat exchanger TUV-30-14-695-30M PTVM
136.	Act of acceptance repaired, refurbished and modernized facilities of 18.05.2010. Pipe insulation - 15,8 pm Kalinino region
137.	Act of acceptance repaired, refurbished and modernized facilities of 25.05.2010. Pipe insulation - 36,6 pm Kalinino region
138.	Act of acceptance repaired, refurbished and modernized facilities of 04.10.2010. Pipe insulation - 9,0 pm Kalinino region
139.	Act of acceptance repaired, refurbished and modernized facilities of 11.10.2010. Pipe insulation - 109.0 PM Kalinino region
140.	Act of acceptance repaired, refurbished and modernized facilities of 18.10.2010. Pipe insulation - 24,8,0 PM Kalinino region




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141.	Act of acceptance repaired, refurbished and modernized facilities of 09.02.2010. Pipe insulation - 8,0 pm Kalinino region
142.	Act of acceptance repaired, refurbished and modernized facilities of 14.05.2010. Pipe insulation - 120.0 PM Kalinino region
143.	Act of acceptance repaired, refurbished and modernized facilities of 06.10.2010. Pipe insulation - 15,0 pm Samara region
144.	Act of acceptance repaired, refurbished and modernized facilities of 04.10.2010. Pipe insulation - 15,0 pm Samara region
145.	Act of acceptance repaired, refurbished and modernized facilities of 14.10.2010. Pipe insulation - 32.6 pm Samara region
146.	Act of acceptance repaired, refurbished and modernized facilities of 16.10.2010. Pipe insulation - 154.0 PM Samara region
147.	Act of acceptance repaired, refurbished and modernized facilities of 23.10.2010. Pipe insulation - 61.0 pm Samara region
148.	Act of acceptance repaired, refurbished and modernized facilities of 17.08.2010. Pipe insulation - 50,0 pm Kyiv region
149.	Act of acceptance repaired, refurbished and modernized facilities of 18.06.2010. Pipe insulation - 125.0 pm Kyiv region
150.	Act of acceptance repaired, refurbished and modernized facilities of 24.09.2010. Pipe insulation - 151.2 pm Kyiv region
151.	Act of acceptance repaired, refurbished and modernized facilities of 12.10.2010. Pipe insulation - 18.0 pm Kyiv region
152.	Act of acceptance repaired, refurbished and modernized facilities of 08.11.2010. Pipe insulation - 90.0 pm Kyiv region
153.	Act of acceptance repaired, refurbished and modernized facilities of 12.11.2010. Pipe insulation - 135.5 pm Kyiv region
154.	Act of acceptance repaired, refurbished and modernized facilities of 04.08.2010. Pipe insulation - 15,0 pm Kirov region
155.	Act of acceptance repaired, refurbished and modernized facilities of 20.09.2010. Pipe insulation - 141.9 PM Kirov region
156.	Act of acceptance repaired, refurbished and modernized facilities of 26.05.2010. Pipe insulation - 101.0 PM Kirov region
157.	Act of acceptance repaired, refurbished and modernized facilities of 15.06.2010. Pipe insulation - 10,0 pm Kirov region
158.	Act of acceptance repaired, refurbished and modernized facilities of 25.08.2010. Pipe insulation - 100,0 pm Kirov region
159.	Act of acceptance repaired, refurbished and modernized facilities of 30.08.2010. Pipe insulation - 140.0 PM Kirov region
160.	Act of acceptance repaired, refurbished and modernized facilities of 03.09.2010. Pipe insulation - 28.0 pm Kirov region
161.	Act of acceptance repaired, refurbished and modernized facilities of 27.10.2010. Pipe insulation - 75,0 pm Kirov region
162.	Act of acceptance repaired, refurbished and modernized facilities of 29.10.2010. Pipe insulation - 52,0 pm Kirov region
163.	Act of acceptance repaired, refurbished and modernized facilities of 29.09.2010. Pipe insulation - 80,5 pm Kirov region




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164.	Act of acceptance repaired, refurbished and modernized facilities of 11.02.2010. Pipe insulation - 75,0 pm Kirov region
165.	Act of acceptance e repaired, refurbished and modernized facilities of 22.03.2010. Pipe insulation - 44.0 pm Kirov region
166.	Act of acceptance repaired, refurbished and modernized facilities of 14.05.2010. Pipe insulation - 56.0 pm Kirov region
167.	Act of acceptance repaired, refurbished and modernized facilities of 14.07.2010. Pipe insulation - 90.0 pm Kirov region
168.	Act of acceptance repaired, refurbished and modernized facilities of 28.07.2010. Pipe insulation - 136.6 PM Kirov region
169.	Act of acceptance repaired, refurbished and modernized facilities of 01.09.2010 Pipe insulation - 5,0 pm Kirov region
170.	Act of acceptance repaired, refurbished and modernized facilities of 14.10.2010. Pipe insulation - 10,0 pm Kirov region
171.	Act of acceptance repaired, refurbished and modernized facilities of 02.11.2010. Pipe insulation - 28.0 pm proletarian district
172.	Act of acceptance repaired, refurbished and modernized facilities of 02.06.2010. Pipe insulation - 2,0 pm proletarian district
173.	Act of acceptance repaired, refurbished and modernized facilities of 02.10.2010. Pipe insulation - 46.5 pm proletarian district
174.	Act of acceptance repaired, refurbished and modernized facilities of 02.11.2010. Pipe insulation - 30,0 pm proletarian district
175.	Act of acceptance repaired, refurbished and modernized facilities of 02.11.2010. Pipe insulation - 28.0 pm proletarian district
176.	Act of acceptance repaired, refurbished and modernized facilities of 12.01.2010. Pipe insulation - 13.0 pm proletarian district
177.	Act of acceptance repaired, refurbished and modernized facilities of 21.01.2010. Pipe insulation - 16.0 pm proletarian district
178.	Act of acceptance repaired, refurbished and modernized facilities of 28.01.2010. Pipe insulation - 15,0 pm proletarian district
179.	Act of acceptance repaired, refurbished and modernized facilities of 07.05.2010. Pipe insulation - 85.0 pm proletarian district
180.	Act of acceptance repaired, refurbished and modernized facilities of 11.06.2010. Pipe insulation - 70,0 pm proletarian district
181.	Act of acceptance repaired, refurbished and modernized facilities of 02.08.2010. Pipe insulation - 12,0 pm proletarian district
182.	Act of acceptance repaired, refurbished and modernized facilities of 06.08.2010 Pipe insulation - 117.0 PM proletarian district
183.	Act of acceptance repaired, refurbished and modernized facilities of 06.08.2010. Pipe insulation - 39,0 pm proletarian district
184.	Act of acceptance repaired, refurbished and modernized facilities of 02.09.2010. Pipe insulation - 5,0 pm proletarian district
185.	Act of acceptance repaired, refurbished and modernized facilities of 02.10.2010. Pipe insulation - 4,0 pm proletarian district
186.	Act of acceptance repaired, refurbished and modernized facilities of 12.10.2010. Pipe insulation - 16.0 pm proletarian district




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187.	Act of acceptance repaired, refurbished and modernized facilities of 15.10.2010. Pipe insulation - 50,0 pm proletarian district
188.	Act of acceptance repaired, refurbished and modernized facilities of 06.12.2010. Pipe insulation - 50,0 pm proletarian district
189.	Act of acceptance repaired, refurbished and modernized facilities of 15.12.2010. Pipe insulation - 32,0 pm proletarian district
190.	Act of acceptance repaired, refurbished and modernized facilities of 24.12.2010. Pipe insulation - 60.0 pm proletarian district
191.	Act of acceptance repaired, refurbished and modernized facilities of 07.05.2010. Pipe insulation - 12,0 pm proletarian district
192.	Act of acceptance repaired, refurbished and modernized facilities of 09.07.2010. Pipe insulation - 20,0 pm proletarian district
193.	Act of acceptance repaired, refurbished and modernized facilities of 08.09.2010. Pipe insulation - 14,0 pm proletarian district
194.	Act of acceptance repaired, refurbished and modernized facilities of 26.11.2010. Pipe insulation - 80.0 pm proletarian district
195.	Act of acceptance repaired, refurbished and modernized facilities of 26.11.2010. Pipe insulation - 40,0 pm proletarian district
196.	Act of acceptance repaired, refurbished and modernized facilities of 06.12.2010. Pipe insulation - 13.0 pm proletarian district
197.	Act of acceptance repaired, refurbished and modernized facilities of 19.06.2010. Pipe insulation - 47,5 pm Leninsky district
198.	Act of acceptance repaired, refurbished and modernized facilities of 20.06.2010. Pipe insulation - 2,5 pm Leninsky district
199.	Act of acceptance repaired, refurbished and modernized facilities of 23.07.2010. Pipe insulation - 17,4 pm Leninsky district
200.	Act of acceptance repaired, refurbished and modernized facilities of 29.07.2010. Pipe insulation - 113.2 PM Leninsky district
201.	Act of acceptance repaired, refurbished and modernized facilities of 15.11.2010. Pipe insulation - 146.0 PM Leninsky district
202.	Act of acceptance repaired, refurbished and modernized facilities of 24.12.2010. Pipe insulation - 11,2 pm Leninsky district
203.	Act of acceptance repaired, refurbished and modernized facilities of 26.11.2010. Pipe insulation - 221.0 PM Leninsky district
204.	Act of acceptance repaired, refurbished and modernized facilities of 21.12.2010. Pipe insulation - 150,0 pm Leninsky district
205.	Act of acceptance repaired, refurbished and modernized facilities of 27.12.2010. Pipe insulation - 118.8 PM Leninsky district
206.	Act of acceptance repaired, refurbished and modernized facilities of 03.05.2010. Pipe insulation - 10,8 pm Leninsky district
207.	Act of acceptance repaired, refurbished and modernized facilities of 04.05.2010. Pipe insulation - 10,6 pm Leninsky district
208.	Act of acceptance repaired, refurbished and modernized facilities of 04.11.2010. Pipe insulation - 40,0 pm Leninsky district
209.	Act of acceptance repaired, refurbished and modernized facilities of 09.12.2010. Pipe insulation - 163.0 PM Leninsky district




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210.	Act of acceptance repaired, refurbished and modernized facilities of 11.12.2010. Pipe insulation - 6,0 pm Leninsky district
211.	Act of acceptance repaired, refurbished and modernized facilities of 13.12.2010. Pipe insulation - 6,0 pm Leninsky district
212.	Act of acceptance repaired, refurbished and modernized facilities of 02.11.2010. Pipe insulation - 28.0 pm proletarian district
213.	Act of acceptance repaired, refurbished and modernized facilities of 02.06.2010. Pipe insulation - 2,0 pm proletarian district
214.	Act of acceptance repaired, refurbished and modernized facilities of 05.10.2010 Pipe insulation - 46.5 pm proletarian district
215.	Act of acceptance repaired, refurbished and modernized facilities of 03.11.2010. Pipe insulation - 30,0 pm proletarian district
216.	Act of acceptance repaired, refurbished and modernized facilities of 12.01.2010. Pipe insulation - 13.0 pm proletarian district
217.	Act of acceptance repaired, refurbished and modernized facilities of 21.01.2010. Pipe insulation - 16.0 pm proletarian district
218.	Act of acceptance repaired, refurbished and modernized facilities of 28.01.2010. Pipe insulation - 15,0 pm proletarian district
219.	Act of acceptance repaired, refurbished and modernized facilities of 07.05.2010. Pipe insulation - 85.0 pm proletarian district
220.	Act of acceptance repaired, refurbished and modernized facilities of 11.06.2010. Pipe insulation - 70,0 pm proletarian district
221.	Act of acceptance repaired, refurbished and modernized facilities of 02.08.2010. Pipe insulation - 12,0 pm proletarian district
222.	Act of acceptance repaired, refurbished and modernized facilities of 06.08.2010. Pipe insulation - 117.0 PM proletarian district
223.	Act of acceptance repaired, refurbished and modernized facilities of 06.08.2010. Pipe insulation - 39,0 pm proletarian district
224.	Act of acceptance repaired, refurbished and modernized facilities of 02.09.2010. Pipe insulation - 5,0 pm proletarian district
225.	Act of acceptance repaired, refurbished and modernized facilities of 05.10.2010. Pipe insulation - 4,0 pm proletarian district
226.	Act of acceptance repaired, refurbished and modernized facilities of 12.10.2010. Pipe insulation - 16.0 pm proletarian district
227.	Act of acceptance repaired, refurbished and modernized facilities of 15.10.2010. Pipe insulation - 50,0 pm proletarian district
228.	Act of acceptance repaired, refurbished and modernized facilities of 06.12.2010. Pipe insulation - 50,0 pm proletarian district
229.	Act of acceptance repaired, refurbished and modernized facilities of 15.12.2010. Pipe insulation - 32,0 pm proletarian district
230.	Act of acceptance repaired, refurbished and modernized facilities of 24.12.2010. Pipe insulation - 60.0 pm proletarian district
231.	Act of acceptance repaired, refurbished and modernized facilities of 07.05.2010. Pipe insulation - 12,0 pm proletarian district
232.	Act of acceptance repaired, refurbished and modernized facilities of 09.07.2010. Pipe insulation - 20,0 pm proletarian district






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233.	Act of acceptance repaired, refurbished and modernized facilities of 08.09.2010. Pipe insulation - 14,0 pm proletarian district
234.	Act of acceptance repaired, refurbished and modernized facilities of 26.11.2010. Pipe insulation - 80.0 pm proletarian district
235.	Act of acceptance repaired, refurbished and modernized facilities of 26.11.2010. Pipe insulation - 40,0 pm proletarian district
236.	Act of acceptance repaired, refurbished and modernized facilities of 06.12.2010 Pipe insulation - 13.0 pm proletarian district
237.	Act of acceptance repaired, refurbished and modernized facilities of 07.07.2010. Pipe insulation - 25.0 pm Voroshilov district
238.	Act of acceptance repaired, refurbished and modernized facilities of 11.08.2010. Pipe insulation - 249.2 PM Voroshilov district
239.	Act of acceptance repaired, refurbished and modernized facilities of 15.10.2010. Pipe insulation - 37,0 pm Voroshilov district
240.	Act of acceptance repaired, refurbished and modernized facilities of 11.11.2010. Pipe insulation - 18.0 pm Voroshilov district
241.	Act of acceptance repaired, refurbished and modernized facilities of 16.11.2010. Pipe insulation - 12,0 pm Voroshilov district
242.	Act of acceptance repaired, refurbished and modernized facilities of 18.11.2010. Pipe insulation - 25.0 pm Voroshilov district
243.	Act of acceptance repaired, refurbished and modernized facilities of 15.03.2010 Pipe insulation - 4,0 pm Voroshilov district
244.	Act of acceptance repaired, refurbished and modernized facilities of 19.04.2010. Pipe insulation - 7,0 pm Voroshilov district
245.	Act of acceptance repaired, refurbished and modernized facilities of 15.06.2010. Pipe insulation - 8,0 pm Voroshilov district
246.	Act of acceptance repaired, refurbished and modernized facilities of 05.10.2010. Pipe insulation - 14,0 pm Voroshilov district
247.	Act of acceptance repaired, refurbished and modernized facilities of 08.10.2010. Pipe insulation - 31.0 pm Voroshilov district
248.	Act of acceptance repaired, refurbished and modernized facilities of 16.12.2010. Pipe insulation - 22,0 pm Voroshilov district
249.	Act of acceptance repaired, refurbished and modernized facilities of 06.09.2010. Pipe insulation - 3,0 pm Voroshilov district
250.	Act of acceptance repaired, refurbished and modernized facilities of 03.11.2010. Pipe insulation - 50,0 pm Voroshilov district
251.	Act of acceptance repaired, refurbished and modernized facilities of 11.01.2010. Pipe insulation - 32,0 pm Voroshilov district
252.	Act of acceptance repaired, refurbished and modernized facilities of 20.05.2010. Pipe insulation - 45.0 pm Voroshilov district
253.	Act of acceptance repaired, refurbished and modernized facilities of 01.10.2010. Pipe insulation - 6,5 pm Voroshilov district
254.	Act of acceptance repaired, refurbished and modernized facilities of 12.10.2010. Pipe insulation - 28.0 pm Voroshilov district
255.	Act of acceptance repaired, refurbished and modernized facilities of 04.11.2010. Pipe insulation - 7,0 pm Voroshilov district





256.	Act of acceptance repaired, refurbished and modernized facilities of 10.11.2010. Pipe insulation - 31.0 pm Voroshilov district
257.	Act of acceptance repaired, refurbished and modernized facilities of 10.12.2010r Pipe insulation - 54.0 pm Voroshilov district
258.	Act of acceptance repaired, refurbished and modernized facilities of 23.12.2010r Pipe insulation - 30,0 pm Voroshilov district
259.	Act of acceptance repaired, refurbished and modernized facilities of 28.12.2010. Pipe insulation - 12,0 pm Voroshilov district
260.	Act of acceptance repaired, refurbished and modernized facilities of 21.10.2010. Pipe insulation - 110.0 PM Voroshilov district
261.	Characteristics of heat supply facilities MCE "Donetskmiskteplomerezha" for 2010
262.	Electricity consumption MCE "Donetskmiskteplomerezha"for 2010
263.	Consumers hot water MCE "Donetskmiskteplomerezha"for 2010
264.	Letter of Donetsk regional centers for Hydrometeorology of the daily average air temperature in Donetsk (October-April) 2010.
265.	Passport on natural gas transferred from JSC "Donetskmiskgaz" in 2010r.
266.	Order MCE "Donetskmiskteplomerezha" № 375 of 01.10.2009 "About the beginning of the heating season of 2009 and 2010."
267.	Order MCE "Donetskmiskteplomerezha" № 123 from 30.03.2010 "On completion of the heating season of 2009 and 2010."
268.	Order of Donetsk Mayor #1010 from 29.09.2009. "About the beginning of heating period in 2009-2010"
269.	Order of Donetsk Mayor # 241 from 23.03.2010. " About the end of the heating season 2009-2010"
270.	Order of Donetsk Mayor # 995 from 28.09.2010. "At the beginning of heating period in 2010-2011"
271.	Order of Donetsk Mayor #1010 from 01.10.2010.
272.	Order MCE "Donetskmiskteplomerezha" № 464 01.10.2010 "About the beginning of the heating season of 2010 to 2011."
273.	Photo Permission for air emissions from stationary sources of 1412900000-63 "Kramatorskmezhrayteploset" " valid to 28.05.2014.
274.	Photo Report on Air Protection in 2010. 2 TP "air" "Kramatorskmezhrayteploset"
275.	Photo report of inventory of emission sources of pollutants in the air "Kramatorskmezhrayteploset"
276.	Photo Report emissions control of pollutants from stationary sources "Kramatorskmezhrayteploset"
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278.	Photo act of putting into operation, installation of equipment UTK-15
279.	Photo by Act of Acceptance number 28 repaired, refurbished and modernized facilities from 31.12.2010.
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286.	Photo Act of acceptance repaired, refurbished and modernized facilities. Thermal network of boiler rooms "OSH 26"
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288.	Photo Act of acceptance repaired, refurbished and modernized facilities. Thermal network of boiler room "179 kv"
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290.	Photo Passport of membrane number 5 / 6021 boiler "1 May"
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293.	Photo Passport thermal resistance № 4364
294.	Photo The certificate of verification of measuring equipment "The flow-DL-03» number 161 valid to 09/21/2011.
295.	Photo Passport number 214 on the membrane boilerhouse "82 kv"
296.	Photo Passport thermal converter № 4296
297.	Photo Passport thermal resistance № 4354
298.	Photo thermal resistance № 4363
299.	Photo Protocol № 6 of 20.09.2010. Meetings of the Commission for verification of knowledge on occupational safety "Kramatorskmezhrayteploset".
300.	Photo Passport controller meter number 00152070202035095
301.	Logbook "temperature"
302.	Photo Pipe Insulation at the site of "Kramatorskmezhrayteploset"
303.	Photo controller meter
304.	Photos pump № 5227
305.	Photo Measuring System "Potik-DN-03"
306.	Photo Daily logbook boiler house "May 1"
307.	Photo logbook of cold water boilerhouse "May 1"
308.	Photo Daily logbook of boiler fuel and energy resources, boilerhouse "May 1"
309.	Photo Certificate of boiler machinist Pamyatilova T. E.
310.	Photo electricity meter number #53044139, #50059665
311.	Photo electricity meter number #53043868, #50059664
312.	Photo Repair plan for 2010.
313.	Photo Timetable for preparing of boilers and heating units in 2010.
314.	Photo Permission for air emissions from stationary sources Slov'yanskteplomerezha"№ 1414100000-74 " valid to 26.03.2014.
315.	Photo Report on Air Protection in 2010. 2 TP "air" "Slov'yanskteplomerezha"
316.	Photo Information about gas consumption "Slov'yanskteplomerezha" January 2010.



317.	Photo Information about gas consumption "Slov'yanskteplomerezha" December 2010
318.	Photo Act of acceptance I repaired, renovated and modernized facilities 04.10.2010. Installation of heating of the pipes "Izoprofleks"
319.	Photo Act of acceptance repaired, renovated and modernized facilities 05.12.2010. Installation of heating of the pipes "Izoprofleks"
320.	Photo Act of acceptance repaired, renovated and modernized facilities 04.10.2010. Installation of heating of the pipes "Izoprofleks"
321.	Photo Protocol № 413 committee meeting to verify the knowledge on occupational safety and health of 05.11.2010. "Slavyanskteploset"
322.	Photo Passport of membrane number 2118
323.	Photo Passport of SI parameters and characteristics of the medium boiler number 24
324.	Photo Passport gas volume corrector B25 № 081085
325.	Photo The certificate of verification of measuring equipment gas volume Corrector B25 number 081 085number 1587 valid to 11.09.2011.
326.	Photo Examination report -Natural gas metering unit 09.02.2009. Installation of cogeneration. Boiler number 24
327.	Passport Photo rotary gas meters «GMS» № 118 969
328.	Photo The certificate of verification of measuring equipment "The flow-DL-03»№ 03/50 number 157 valid to 22/09/2011.
329.	Photo Repair plan in 2010.
330.	Photo Passport readiness to work in the winter time 2010-2011of gas boiler number 24.
331.	Photo Records of accounts of electricity 2010.
332.	Photo Passport multifunctional electronic energy meters SL7000 Smart
333.	Photo Passport multifunctional electronic energy meters ACE6000
334.	Photo Journal of cold water boiler number 24
335.	Photo Daily Journal of boiler number 24
336.	Photo Logbook of Accounting TER on boilerhouse number 24
337.	Photo Logbook of gas boilerhouse number 24
338.	Photo Measuring System "Potik-MD-03"
339.	Photo Certificate of boilers machinist № 038 / 3 Zarovnyaya Natalia Gennadiivna
340.	Photo Certificate of boilers machinist № 16/11 Kazan Olga
341.	Photo Permission for air emissions from stationary sources of "Krasnolimanska teplomerezha" № 1413300000-8 valid to 22.04.2013.
342.	Photo Report on Air Protection in 2010 #2TP "air" " Krasnolimanska teplomerezha"
343.	Photo of Protocol № 15-1/10 30.09.2010. Meetings of the Commission for verification of knowledge on occupational safety "Krasnolimanska teplomerezha"
344.	Photo results of measurements of temperature inside the heated premises in December 2010. "Krasnolimanska teplomerezha"
345.	Photo Act of factual consumption of natural gas 31.01.2010.



346.	Photo The certificate of verification of measuring devices gas volume Corrector B25number 06 112 number 1673 valid to 11.09.2011.
347.	Photo Passport № 562 boiler of boilerhouse number 9 " Zelenyi klin "
348.	Photo Passport № 499 boiler of boilerhouse number 9 " Zelenyi klin "
349.	Photo Passport № 498 boiler of boilerhouse number 9 " Zelenyi klin "
350.	Photo Passport of readiness boiler number 9 to work in the winter time 2010/2011.
351.	Photo Repair Plan "Krasnolimanska teplomerezha" for 2010.
352.	Photo boiler № №498, 499, 562
353.	Photo gas burner boilers
354.	Photo gas meter ultrasonic «Kurs-o»№ 02591
355.	Photo Cable Line
356.	Photo Logbook of gas flow on boiler number 9
357.	Photo Daily logbook of boiler number 9
358.	Orders Mayor of Krasny Liman number 169 from 27.09.2010., "About begin of the heating period 2010-2011."
359.	Orders Mayor of Krasny Liman number 139 from 30.03.2010, "About the end of heating period 2009-2010"
360.	Orders Mayor of Krasny Liman number 177 from 05.10.2010. "On making changes in order mayor number 169 from 27.09.2010"
361.	The decision of the Executive Committee of the City Kramatorsk number 645 from 01.10.2010. About the beginning of heating period 2010-2011. "
362.	Information about the planned thermal loads and heated area for 2010. "Kramatorskmezhrayteploset"
363.	Heat load on the boiler "Kramatorskmezhrayteploset"
364.	Information about the annual outdoor temperature on "Kramatorskmezhrayteploset"
365.	Balance spreadsheet of boilerhouse "Kramatorskmezhrayteploset"
366.	Information about the heated area "Kramatorskmezhrayteploset"

### 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/	Kucherenko V. – Head of the industry and technical department of the RME "Donetskteplocomunenergo"
/2/	Pahomova K. - engineer of the industry and technical department of the RME "Donetskteplocomunenergo"
/3/	Shul'ga A. - engineer of the industry and technical department of the RME "Donetskteplocomunenergo"
/4/	Ohremenko V.S. - Chief Engineer of MCE "Donetskmiskteplomerezha"
/5/	Borovskiy V.V. - chief of the PTD of MCE "Donetskmiskteplomerezha"
/6/	Skorik V.A. – Engineer of the PTD of MCE "Donetskmiskteplomerezha"

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/7/	Kravchenko M.P. - Acting Head of department EBiTER
/8/	Pavkina M.V. - Engineering Department EBiTER
/9/	Konskiy V.I. - Chief Metrologist
/10/	Nerda O.O. - . Engineer metrologist
/11/	Khoron'ko S.N. - Master boiler house MR-2
/12/	Medvedeva T.V. - Machinist boilers house MR-2
/13/	Spravnikova E.N. - Machinist boilers house MR-2
/14/	Malykhina E.V. - Acting Head of the Kalinin heat district
/15/	Gavril'chenko O.I. - Acting boiler master № 139
/16/	Dudchenko G.N. - Machinist boilers house №139
/17/	Kalinovskaya I.N. - machinist boiler house №139
/18/	Kilimenniy A.A. - head of the Kirov heat district
/19/	Kunda V.V. - Machinist boiler house Ussuriysk
/20/	Zolin N.I. - Master boiler house Krivozubova
/21/	Dolgova E.A. - Machinist boilers house Krivozubova
/22/	Boul B.I. - Head of Leninsky heat district
/23/	Chelombitko A.A. - Master boiler house №579
/24/	Bolicheva V.Y. - Machinist boiler house №579
/25/	Zlatin G.E. - Master boiler house №581
/26/	Chikamit O.N. - Machinist boiler house №581
/27/	Sukharenko S.E. - Director of "Kramatorskmezhrayteploset"
/28/	Kochey V.A. - Chief Engineer of "Kramatorskmezhrayteploset"
/29/	Kasyanova A.I. - health and safety engineer of "Kramatorskmezhrayteploset"
/30/	Miroshnichenko K.I. - Head ER number 1 of "Kramatorskmezhrayteploset"
/31/	Prus N.L. - Head of ORU of "Kramatorskmezhrayteploset"
/32/	Afanaskina N.A. - Engineer TER of "Kramatorskmezhrayteploset"
/33/	Kakovka A.V. – Head of KIPiA of "Kramatorskmezhrayteploset"
/34/	Efimov A.I. - Director of "Slavyanskteploset"
/35/	Rempel D.P. - Deputy Director for the production of "Slavyanskteploset"
/36/	Kutsaenko V.M. - Head of PTD "Slavyanskteploset"



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/37/	Guzey T.V. - Engineer TER of "Slavyanskteploset"
/38/	Bashmakova T.V. - metrologist of "Slavyanskteploset"
/39/	Borisova L.A. - engineer of "Slavyanskteploset"
/40/	Gokish P.L. - Head of KIPiA of "Slavyanskteploset"
/41/	Kutsanenکو V.A. - Responsible for the safe operation of boilers, boiler number 24 Khimik, Senior Master of "Slavyanskteploset"
/42/	Bugaev A.A. - Director of "Krasnolimanskaya heating system"
/43/	Vasyutin N.G. - Chief Engineer of "Krasnolimanskaya heating system"
/44/	Litovka N.K. - Head of PS of "Krasnolimanskaya heating system"
/45/	Bashlykova O.V. - Engineer ORU of "Krasnolimanskaya heating system"
/46/	Demchenko G.Yu - Occupational safety engineers of "Krasnolimanskaya heating system"
/47/	Karpenko Yu.A. - Master of boilerhouse number 9 "Zelenyi klin" of "Krasnolimanskaya heating system"





## VERIFICATION REPORT

**APPENDIX A: " REHABILITATION OF THE DISTRICT HEATING SYSTEM IN DONETSK REGION"  
 VERIFICATION PROTOCOL**

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
<b>Project approvals by Parties involved</b>				
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?	DFPs of both Parties (Ukraine, Netherlands) have issued written project approvals (LoAs) when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines.	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
<b>Project implementation</b>				
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?	<p>At the time of previous and current monitoring periods the delay in the installation of some project units as to the determined PDD was noted. Reconstruction of boiler-houses sometimes has insignificant deviations from the project particularly in changes of installed boilers capacity. It was dictated by changes in heat energy demand. In several cases replacement of different (from planed before) diameters of network pipes takes place.</p> <p>CME "Artemivskteplomerezha" refused to participate in this project.</p> <p>Implementation of CHP units at RME "Donetskteplocomunenergo" and MCE "Donetskmiskteplomerezha" is postponed because of significant increasing of natural gas price. Installation of frequency controllers at MCE "Donetskmiskteplomerezha" is not finished yet, therefore calculations of CO2 emissions reduction due to reducing of electricity consumption was</p>	CL 01 CL 02	OK



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>carried out only at those boiler houses where it was completed (by conservative approach).</p> <p>CL 01. Please provide justification for the difference of amount of ERU's for the reported year in the PDD and MR.</p> <p>CL 02 . Please provide justification for the difference of amount of Baseline emissions for the reported year in the PDD and MR.</p>		
93	What is the status of operation of the project during the monitoring period?	On the whole project has been implemented as defined in the PDD and the implementation is evidenced by statements of work completion (see list of verified documents).	OK	OK
<b>Compliance with monitoring plan</b>				
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?	Yes, monitoring occurs in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and verified changes and is so listed on the UNFCCC JI website.	OK	OK
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?	All key factors 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 were taken into account, as appropriate for calculating the emission reductions or enhancements of net removals.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Registration of Natural gas consumption at boiler houses of RME "Donetskteplocomunenergo" and MCE "Donetskteplomerezha is carried out by the following scheme:	CAR 01 CL 03	OK



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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>1. All boiler-houses are equipped with gas flow meters.</p> <p>2. Most of boiler-houses are equipped with automatic corrector for temperature and pressure. Gas consumption is registered automatically.</p> <p>3. Beside this, every hour operator of a boiler house registers parameters of natural gas (temperature and pressure) in the paper journal "Journal of registration of boiler-house's operation parameters". These parameters are used to bring gas consumption to normal conditions. Natural gas consumption is measured by gas flow meter, installed at a boiler-house. Every day operator of a boiler house makes registration of daily gas consumption in the special paper journal, see Fig. 6.</p> <p>4. Every day operators transfer values of gas consumption to calculating centers of the Production Branches of RME "Donetskteplocomunenergo" and MCE "Donetskteplomerezha". United server installed at the MCE "Donetskteplomerezha" account center is presented at the Fig. 7. It allows taking values of all controlled parameters for every day of monitoring period.</p> <p>5. Every month the account centers transfer data to gas suppliers.</p> <p>CAR 01. In MR № 4, section B 2.1 and Annex 1 the exact reference to the data source must be indicated.</p> <p>CL 03. Please provide statistical information on the data in</p>		



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Table B.2.1		
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?	<p>Emission factors, including default emission factors are presented in Section B.2.1 and Annex 1 of the MR.</p> <p>FAR 01. In order to meet the JISC requirements on data saving and archiving, an Order on archiving of all project related documentation for two years after the last ERU transmission should be developed and included to the Emission Monitoring Manual. All persons responsible for data collection and monitoring should be aware of the provisions of this Order.</p>	FAR 01	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?	Yes, the calculation of emission reductions or enhancements of net removals are based on conservative assumptions and the most plausible scenarios in a transparent manner.	OK	OK
<b>Applicable to JI SSC projects only</b>				
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?	N/a	N/a	N/a
<b>Applicable to bundled JI SSC projects only</b>				
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	N/a	N/a	N/a



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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	that provides for overlapping monitoring periods, are the monitoring 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?			
<b>Revision of monitoring plan</b>				
<b>Applicable only if monitoring plan is revised by project participant</b>				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	During this verification monitoring plan has not been revised.	N/a	N/a
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?	N/a	N/a	N/a
<b>Data management</b>				
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	All data necessary for the CO2 emission reductions calculation is collected. The scheme of data flow and a description of reporting procedures introduced in Monitoring report. Training logbook and Results of operator training were presented to the verification team during the site visit. Position and roles of person in the GHG data management process are defined in the monitoring report and are implemented on-site.	OK	OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Calibration is conducted by State Center of Metrology and Standardization. The documents that confirmed calibration	CL 04	OK



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		were provided for the verification team.  CL 04. Please provide information about the testing of electric energy meters in the boiler house by the Oborony str. in Krasny Liman		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Data collection are clearly defined in the monitoring report and are implemented on-site.	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	All data necessary for the CO2 emission reductions calculation is collected. The scheme of data flow is introduced in Monitoring report.  CL 05. Please provide information why the state statistical reporting forms "2TP-vozduh" city Krasny Liman does not include measures to reduce emissions of pollutants and greenhouse gases.	CL 05	OK
<b>Verification regarding programs of activities (additional elements for assessment)</b>				
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
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
<b>Applicable to sample-based approach only</b>				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into	N/A	N/A	N/A





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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<p>account that:</p> <p>(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:</p> <ul style="list-style-type: none"> <li>- The types of JPAs;</li> <li>- The complexity of the applicable technologies and/or measures used;</li> <li>- The geographical location of each JPA;</li> <li>- The amounts of expected emission reductions of the JPAs being verified;</li> <li>- The number of JPAs for which emission reductions are being verified;</li> <li>- The length of monitoring periods of the JPAs being verified; and</li> <li>- The samples selected for prior verifications, if any?</li> </ul>			
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	N/A	N/A	N/A



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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the secretariat for the JISC.s ex ante assessment? (Optional)			
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 the JISC of the fraud in writing?	N/A	N/A	N/A



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**Table 2 Resolution of Corrective Action 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 justification for the difference of amount of ERU's for the reported year in the PDD and MR.	92	<p>As it is described in PDD, the method for prognostic calculations used in PDD and the approach for calculation of actual emission reduction in monitoring plan are principally different.</p> <p>Estimated (stated in the PDD, section D.1.4) amount of emission reductions is based on the prognostic calculations with taking into account the prognostic efficiency of boilers, prognostic estimation of efficiency of some energy saving measures from ones described in PDD that are calculable (not all of them), and without account of any future conditions (which is impossible in principle).</p> <p>The minimum assured result of implementation of the energy saving measures was adopted in PDD, and in cases when it was impossible to express this result in figures – was not taken into account though had to be for sure positive.</p> <p>Moreover, according to the conservative approach, the effect of these measures was considered only for the next year after their implementation, though emission reductions were achieved starting directly from time of their implementation.</p>	CL 01 is closed based on the explanation provided.



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	<p>In contrast to PDD, calculations in a MRs are based on actual achieved results of the project implementation with taking into account the actual (both internal and external) conditions for district heating in a reported year (see PDD sections B1, D.1.1 and/or MR section A.5.1). This approach eliminates any possibility of reduction of fuel consumption and correspondingly GHG emission due to incomplete delivery of heat to consumers, is the most appropriate, precise, corresponding to the conservative approach, and the most closely reflects the aims, goals and spirit of Kyoto Protocol.</p> <p>Moreover, the measures that enable to achieve the largest effect are implemented with first-priority, and implementation of the scheduled measures at the majority of objects is accompanied with additional / associated minor measures that are not predicatively calculable.</p> <p>Thus the results of these two approaches should be different by definition. All calculations in a MRs are namely justification of the reality of actually achieved emission reductions in course of implementation energy saving measures in accordance with the PDD.</p>	
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CL 02 . Please provide justification for the difference of amount of Baseline emissions for the reported year in the PDD and MR.	92	<p>As it is described in PDD, the Baseline emissions for prognostic calculations used in PDD and the approach for calculation of actual emission reduction in monitoring plan are principally different.</p> <p>In PDD (section D.1.4), the Baseline emissions for any reported year were calculated as emissions in the base year.</p> <p>According to the project specific approach described in PDD (section B1 and D.1.1) and MR (section A.5.1), in MR the Baseline emissions for the reported year were calculated as emissions in the base year, corrected in view of the actual (both internal and external, such as: net calorific value of fuel, quality of heating service, weather changes, changes in customers' number, etc.) conditions in the reported year, - the Dynamic Baseline assumption.</p> <p>Thus the results of these two approaches should be different by definition. Calculations in the MR justify the reality of corrected Baseline emissions corresponding to the reported year, in accordance with the PDD.</p>	CL02 is closed based on the information provided.
CAR 01. In MR № 4, section B 2.1 and Annex 1 the exact reference to the data source must be indicated.	95 (b)	This is provided in the MR version 02.	CAR01 is closed based on due corrections made to the MR.
CL 03. Please provide statistical information on the data in Table B.2.1	95 (b)	This is provided to AIE.	CL03 is closed based on the information provided.



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<p>FAR 01. In order to meet the JISC requirements on data saving and archiving, an Order on archiving of all project related documentation for two years after the last ERU transmission should be developed and included to the Emission Monitoring Manual. All persons responsible for data collection and monitoring should be aware of the provisions of this Order.</p>	95 (c)	<p>The relevant Orders on terms of storage of monitoring relevant documents for the JI project and responsible persons will be prepared and issued by the project Supplier in term of current month.</p>	<p>FAR01 remains open till the next periodic verification.</p>
<p>CL 04. Please provide information about the testing of electric energy meters in the boiler house by the Oborony str. in Krasny Liman</p>	101 (b)	<p>This is provided to AIE.</p>	<p>CL04 is closed based on the information provided.</p>
<p>CL 05. Please provide information why the state statistical reporting forms "2TP-vozduh" city Krasny Liman does not include measures to reduce emissions of pollutants and greenhouse gases.</p>	101 (d)	<p>The measures on GHG emission reduction were implemented in IV quarter 2010 at boiler-house #9 "Zelenyi klin" (#167 in the project) in Krasny Liman town and mistakenly were not indicated in the state statistical reporting form "2TP-vozduh" for 2010.</p> <p>However the actual emissions were indicated with taking into account the implementation of boilers KSVa-1.25 (3 un.).</p> <p>Paying attention to above mentioned, these measures will be indicated in the state statistical reporting form "2TP-vozduh" for 2011.</p> <p>Acts of putting the KSVa-1.25 boilers into operation are provided to AIE.</p>	<p>CL 05 is closed based on the information provided.</p>





## VERIFICATION REPORT

## APPENDIX B: VERIFICATION TEAM

**Oleg Skoblyk, Specialist (Power Management)**

Team Leader, Climate Change Lead Verifier  
Bureau Veritas Ukraine HSE Department project manager

Oleg Skoblyk has graduated from National Technical University of Ukraine ‘Kyiv Polytechnic University’ with specialty Power Management. He has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. Oleg Skoblyk has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 52 JI projects.

**Rostislav Topchiy (chemical and ecological engineering)**

Team member, Climate Change Verifier  
Bureau Veritas Ukraine Health, Safety and Environment Project Manager

He is a Lead auditor of Bureau Veritas Certification for Environment Management System, Quality Management System, Occupational Health and Safety Management System. He performed over 180 audits since 2004. He has successfully completed Climate Change Verifier Training Course and he participated as verifier in the verification of 10 JI projects.

**Vitaliy Minyaylo (chemical and ecological engineering)**

Team member, Climate Change Verifier trainee  
Bureau Veritas Ukraine,  
Health, Safety and Environment Department Project Manager



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He has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems, Quality Management Systems, Occupational Health and Safety Management System.

**Ivan G. Sokolov, Dr. Sci. (biology, microbiology)**

Internal Technical Reviewer, Climate Change Lead Verifier, Bureau Veritas Certification Holding SAS Local Climate Change Product Manager for Ukraine

Acting CEO Bureau Veritas Black Sea District

He has over 25 years of experience in Research Institute in the field of biochemistry, biotechnology, and microbiology. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered), Quality Management System (IRCA registered), Occupational Health and Safety Management System, and Food Safety Management System. He performed over 140 audits since 1999. Also he is Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and Lead Tutor of the IRCA registered ISO 9000 QMS Lead Auditor Training Course. He is Lead Tutor of the Clean Development Mechanism /Joint Implementation Lead Verifier Training Course and he was involved in the determination/verification over 60 JI/CDM projects.