DETERMINATION REPORT

OJSC "OBLTEPLOKOMUNENERGO"

DETERMINATION OF THE "REHABILITATION OF THE DISTRICT HEATING SYSTEM OF ZAPORIZHZHIA CITY"

REPORT NO. UKRAINE-DET/0185/2010

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BUREAU VERITAS CERTIFICATION

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DETERMINATION REPORT
"REHABILITATION OF THE DISTRICT HEATING SYSTEM OF ZAPORIZHZHIA CITY"

Date of first issue: 03/12/2010	Organizational unit: Bureau Veritas Certification Holding SAS
Client: OJSC "Oblteplokomunenergo"	Client ref.: Barbarov Ia.A.

Summary:
Bureau Veritas Certification has made the determination of the «Rehabilitation of the District Heating System of Zaporizhzhia City" project of OJSC "Oblteplokomunenergo" located in Zaporizhzhia city, Ukraine, 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 determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, 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 determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the determination process is a list of Clarification and Corrective Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies Guidance on criteria for baseline setting and monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: UKRAINE-det/0185/2010	Subject Group: JI
Project title: «Rehabilitation of the District Heating System of Zaporizhzhia City"	
Work carried out by: Oleg Skoblyk – Team Leader, Verifier, Technical Specialist Igor Kachan – Team Member, Verifier Denis Pishchalov - Team Member, Financial Specialist	
Work verified by: Ivan Sokolov - Internal Technical Reviewer	
Work signed by: Ivan Sokolov – Operational Manager	

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Indexing terms

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1 INTRODUCTION

OJSC "Oblteplokomunenergo" has commissioned Bureau Veritas Certification to determinate its JI project «Rehabilitation of the District Heating System of Zaporizhzhia City" (hereafter called "the project") in Zaporizhzhia city, Ukraine.

This report summarizes the findings of the determination 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

The determination serves as project design verification and is a requirement of all projects. The determination is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are derminated in order to confirm that the project design, as documented, is sound and reasonable, and meet the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emissions reductions units (ERUs).

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 determination 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 determination 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 design.

1.3 Determination team

The determination team consists of the following personnel:

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

Igor Kachan
Bureau Veritas Certification Team Member, Climate Change Verifier

Denis Pishchalov

Bureau Veritas Certification, Financial Specialist

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

2 METHODOLOGY

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

In order to ensure transparency, a determination 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 determination and the results from determining the identified criteria. The determination protocol serves the following purposes:

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

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

2.1 Review of Documents

The Project Design Document (PDD) submitted by OJSC "Oblteplokomunenergo" and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for users of the joint implementation project design document form, Guidance on criteria for baseline setting and monitoring, Kyoto Protocol, Clarifications on Determination Requirements to be Checked by a Accredited Independent Entity were reviewed.

PDD «Rehabilitation of the District Heating System of Zaporizhzhia City" project of OJSC "Oblteplokomunenergo" version 01 was submitted on 10/11/2010.

To address Bureau Veritas Certification further corrective action and clarification requests following the site visit, OJSC "Oblteplokomunenergo" revised the PDD and resubmitted it on 10/12/2010, the latter PDD version 03 is considered final.

The determination findings presented in this report relate to the project as described in the PDD versions 01, 03.

2.2 Follow-up Interviews

On November 18, 2010 Bureau Veritas Certification performed on-site visit interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Concern "Mis'ki teplovi merezhi" and Institute of Engineering Ecology were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Concern "Mis'ki teplovi merezhi"	➢ Implementation schedule ➢ Project management organisation ➢ Evidence and records on reconstruction and new equipment and its operation ➢ Environmental Impact Assessment ➢ Project monitoring responsibilities ➢ Monitoring equipment ➢ Quality control and quality assurance procedures ➢ Environmental impacts affected ➢ Local authorities and public opinion
CONSULTANT Institute of Engineering Ecology	➢ Applicability of methodology ➢ Baseline and Project scenarios ➢ Barriers analysis ➢ Additionality justification ➢ Common practice analysis ➢ Monitoring plan ➢ Conformity of PDD to JI requirements

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination 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 project design.

Corrective Action Requests (CAR) is issued, where:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
(b) The JI requirements have not been met;
(c) There is a risk that emission reductions cannot be monitored or calculated.

The determination team may also use the term Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

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

3 DETERMINATION CONCLUSIONS

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

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

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 36 Corrective Action Requests and 13 Clarification Requests.

3.1 Project approvals by Parties involved (19-20)

The project has already been supported by the Government of Ukraine, namely by the National Environmental Investment Agency of Ukraine, which has issued a Letter of Endorsement for the JI Project (#1900/23/7 dated 16.11.2010). Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.

After receiving Determination Report from the Accredited Independent Entity the project documentation will be submitted to the National Environmental Investment Agency of Ukraine for receiving a Letter of Approval.

3.2 Authorization of project participants by Parties involved (21)

The participation for the OJSC "Oblteplokomunenergo" listed as project participant in the PDD will be authorized by the National Environmental Investment Agency of Ukraine through its written project support explicitly stating the name of the legal entity.

3.3 Baseline setting (22-26)

The PDD explicitly indicates that JI specific approach was the selected approach for identifying the baseline. It has been elaborated Institute of

Engineering Ecology of Ukraine, approved by the International Academy of the Environment and applied in JI projects «Rehabilitation of the District Heating System of Zaporizhzhia City", "Rehabilitation of the District Heating System in Chernigiv city», "Rehabilitation of the District Heating System in Crimea» and "Rehabilitation of the District Heating System in Kharkiv City», which received their final determination at JISC.

The PDD provides a detailed theoretical description in a complete and transparent manner, as well as justification, that the baseline is established:

(a) By listing and describing the following plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one:

   a. The first alternative is continuation of the current situation (no project activity or other alternatives undertaken), i.e. business-as-usual scenario with minimum reconstruction works, approximately balanced by overall degradation of the District Heating System.

   b. The second alternative is to make reconstruction works (the proposed project activity) without JI mechanism.

   c. The third alternative is the shortened project activity, without any of the non-key type of activity, for example elimination of frequency controllers installation, etc., from the project.

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

   - 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 it's assure more exact data for calculations.

3.4 Additionality (27-31)

Traceable and transparent information that an AIE has already positively determined that a comparable implemented under comparable circumstances (same GHG mitigation measure, same country, similar technology, similar scale) would result in a reduction of anthropogenic emissions by sources that is additional to any that would otherwise occur and a justification why this determination is relevant for the project at hand was provided. At present, in addition to this project there are at least 4 Projects of Heat Supply Systems Rehabilitation with application of JI mechanisms in Ukraine: Heat Supply Systems in Chernigiv region, Donetsk region, Autonomous Republic of Crimea and Kharkiv city.

The most recent version of the "Tool for the demonstration and assessment of additionality" (version 05.2) approved by the CDM Executive Board was used. All explanations, descriptions and analyses are made in accordance with the selected tool or method.

The following additionality proofs are provided:

1. there are three alternative scenarios to the project activity identified;
2. investment analysis used simple cost analysis;
3. the identified financial, technological and organisational barriers would credibly prevent the implementation of the proposed project activity undertaken without being registered as a JI activity;
4. the common practice analyses carried out by the PP's, complementing the investment and barrier analysis

Additionality is demonstrated appropriately as a result of the analysis using the approach chosen.

3.5 Project boundary (32-33)

The project boundary defined in the PDD, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

(i) Under the control of the project participants:

- CO2 emissions of boiler-houses belonging to Concern "Mis'ki teplovi merezhi" in the process of fuel burning for heating and hot water supply.

(ii) Reasonably attributable to the project:

- CO2 emissions related to electric energy production for electrical grid in the amount consumed by the boiler-houses for heat and hot water production, wherein energy-saving measures will be introduced;

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD

3.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began, and the starting date is 11/04/2005, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 24 years or 288 months.

The PDD states the length of the crediting period in years and months, which is 25 years or 300 months, and its starting date as 01/01/2006, which is the date the first emission reductions or enhancements of net removals are generated by the project.

The PDD states that the crediting period for the issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.

The PDD states that the extension of its crediting period beyond 2012 is subject to the host Party approval, and the estimates of emission reductions or enhancements of net removals are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

3.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach was the selected.

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as fuel saving.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. be clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions or enhancements of net removals to be monitored such as:

1. Fuel consumption by boiler-houses (Natural gas)
2. Heat value of natural gas
3. Average external temperature during heating season
4. Average internal temperature during heating season
5. Quantity of hot water supply consumers
6. Total Heating area
7. Average heat-transfer factor of the buildings in base year
8. Heating area of buildings (existed in base year) with improved heat insulation in reporting year
9. Heating area of new buildings connected to the heat supply system (it is conceded that such buildings have new improved heat insulation) in reporting year
10. Heat-transfer factor of the buildings with new thermal insulation
11. Duration of heating period
12. Duration of hot water supply period
13. Maximal connected load for heating services
14. Connected load for hot water supply
15. Standard specific discharge of hot water at personal account
16. CO2 emission factor
17. Conversion factor for average load within heating period
18. Electric energy consumption by the boiler-houses, wherein frequency regulation are planned
19. Power production by new installed cogeneration units

The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC, such as BE_Y; PE_Y; EF_{CO2}; $EF_{CO2ELEC}$, y; GWP; EF_{NG}; d; ECy

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination, such as; EF_{CO2}; GWP; EF_{NG}

(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination, such as:

1. Average heat-transfer factor of the buildings in base year
2. Heat-transfer factor of the buildings with new thermal insulation
3. Standard specific discharge of hot water at personal account

(iii) Data and parameters that are monitored throughout the crediting period, such as:

1. Fuel consumption by boiler-houses (Natural gas)
2. Heat value of natural gas
3. Average external temperature during heating season
4. Average internal temperature during heating season
5. Quantity of hot water supply consumers
6. Total Heating area
7. Heating area of buildings (existed in base year) with improved heat insulation in reporting year
8. Heating area of new buildings connected to the heat supply system (it is conceded that such buildings have new improved heat insulation) in reporting year
9. Duration of heating period
10. Duration of hot water supply period
11. Maximal connected load for heating services
12. Connected load for hot water supply
13. Conversion factor for average load within heating period
14. Electric energy consumption by the boiler-houses, wherein frequency regulation are planned
15. Power production by new installed cogeneration units

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording depending on its kind. It is provided in comprehensive manner in Tables for the key-parameters in Section B.1. of the PDD.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate, such as:

Formula 1 – Total emission reduction (ERUs)	
	$ERUs = \sum[E_i^b - E_i^r]$; [t CO_2e]
	ERUs - Total annual emission reduction [t CO_2e] E^b_i - Baseline CO_2 emissions [t CO_2e] E^r_i - CO_2 emissions in the reported year [t CO_2e]
	The sum is taken over all boiler-houses (i) which are included into the project

Project emissions

Formula 2 –Emissions in the reported year **(E^r)**	
	$E_i^r = E_{1i}^r + E_{cons\ i}^r$; [t CO_2e]
	E_{1i}^r – CO_2 emissions due to fuel consumption for heating and hot water supply service for an i boiler-house in the reported year, t CO_2e; $E_{cons\ i}^r$ – CO_2 emissions due to electric power consumption from greed by the i boiler-house in the reported year, t CO_2e.

Formula 3 – CO_2 emissions due to fuel consumption for heating and hot water supply service for an i boiler-house in the reported year, (E_{1i}^r)	
	$E_r = \sum (B_{r(i)} * NCV_{r(i)} * EF_{CO2,\ NG})$, [t CO_2e]
	B_{ri} – amount of fuel consumed by a boiler-house in the reported year, ths m^3 or tons; NCV_{ri} – Average annual Net Calorific Value , GJ/ths.m^3 (GJ/t) $EF_{CO2,\ NG}$ – carbon emission factor, tCO_2/GJ;

Formula 4 – CO_2 emissions due to electric power consumption from greed by the i boiler-house in the reported year ($E_{cons\ i}^r$)	
	$E_{cons\ i}^r = P_r * EF_{CO2,ELEC,c}$

	P_r – electric power consumption by the boiler-houses with energy saving measures implemented, MWh; $EF_{CO2,ELEC,c}$ – Carbon Emission factors for reducing electricity consumption in Ukraine, tCO_2e/MWh;

Baseline emissions

Formula 5 – Annual baseline emissions **(**E_b)	
	$E_i^b = E_{1i}^b + E_{gen\ i}^b + E_{cons\ i}^b$; [t CO_2e]
	E_{1i}^b – baseline CO_2 emissions due to fuel consumption for heating and hot water supply service for an i boiler-house , t CO_2e; $E_{gen\ i}^b$ – CO_2 emissions due to electric power generation associated to the project for an i boiler-house in the base year (consumed from greed, amount to be substituted in the reported year), t CO_2e; $E_{cons\ i}^b$ – CO_2 emissions due to electric power consumption from greed by the i boiler-house in the base year, t CO_2e.

Formula 6 – Baseline CO_2 emissions due to fuel consumption for heating and hot water supply service for an i boiler-house, (E_{1i}^b)	
	For the case when in the base year the hot water supply service was provided (independent of this service duration, $(1-a_b) \neq 0$), the formulae for E_1^b is: $E_1^b = NCV_b * EF_{CO2,NG,b} * [B_b * a_b * K_1 * K_h + B_b * (1- a_b) * K_1 * K_w]$, where the first term in brackets describes fuel consumption for heating, and the second one – fuel consumption for hot water supply. For the case when in the base year the hot water supply service was absent at all ($(1-a_b) = 0$), and in the reported year this service was provided (due to improvement of heat supply service quality for population), the formulae for E_1^b is: $E_1^b = NCV_b * EF_{CO2,NG,b} * [B_b * a_b * K_1 * K_h + B_r * (1-a_r) * K_1 * K_{w0}]$
	NCV_b – Average annual Net Calorific Value in the base year, $GJ/ths.m^3$ (GJ/t); $EF_{CO2,NG,b}$ – carbon emission factor, $KtCO_2/TJ$; B_b – amount of fuel consumed by a boiler-house in the base year, ths m^3 or tons; K_1, $K_h = K_2 * K_3 * K_4$; $K_w = K_5 * K_6 * K_7$ – adjustment factors; a_b – portion of fuel (heat), consumed for heating purposes in the base year; $(1-a_b)$ – portion of fuel (heat), consumed for hot water supply services in the base

	year; a_r – portion of fuel (heat), consumed for heating purposes in the reported year.

Formula 7 – Portion of fuel (heat), consumed for heating purposes in the base year (a_b)	
	$a_b = L_h^b * q * N_h^b / (L_h^b * g * N_h^b + L_w^b * N_w^b)$;
	L_h^b – maximum connected load required for heating in the base year, MW; L_w^b – connected load required for hot water supply service in the base year, MW; g – recalculating factor for average load during heating period (usually 0.4-0.8); N_h^b – duration of heating period in the base year , hours; N_w^b – duration of hot water supply service in the base year, hours.

Formula 8 – Portion of fuel (heat), consumed for heating purposes in the reported year (a_r)	
	$a_r = L_h^r * q * N_h^r / (L_h^r * g * N_h^r + L_w^r * N_w^r)$
	L_h^r – maximum connected load required for heating in the reported year, MW; L_w^r – connected load required for hot water supply service in the reported year, MW; g – recalculating factor for average load during heating period (usually 0.4-0.8); N_h^r – duration of heating period in the reported year, hours; N_w^r – duration of hot water supply service in the reported year, hours.

Formula 9 – Change in the lower heating value (K_1)	
	$K_1 = NCV_b / NCV_r$
	NCV_b – Average annual Net Calorific Value in the base year, GJ/ths.m^3 (GJ/t); NCV_r – Average annual Net Calorific Value in the project year, GJ/ths.m^3 (GJ/t);

Formula 10 – Temperature change factor (K_2)

	$K_2 = (T_{in\ r} - T_{out\ r}) / (T_{in\ b} - T_{out\ b})$
	$T_{in\ r}$ – average inside temperature for the heating period in the reported year, K (or ^{0}C); $T_{in\ b}$ – average inside temperature for the heating period in the base year, K (or ^{0}C); $T_{out\ r}$– average outside temperature for the heating period in the reported year , K (or ^{0}C); $T_{out\ b}$– average outside temperature for the heating period in the reported year , K (or ^{0}C)

Formula 11 – Heating area and building thermal insulation change factor (K_3)	
	$K_3 = [(F_{h\ r} – F_{h\ t\ r} – F_{h\ n\ r})*k_{h\ b} + (F_{h\ n\ r} + F_{h\ t\ r})*k_{h\ n}] / F_{h\ b}*k_{h\ b}$,
	$F_{h\ b}$ – heating area in the base year, m^2; $F_{h\ r}$ – heating area in the reported year, m^2; $F_{h\ n\ r}$ – heating area of new buildings connected to DH system (assumed with the new (improved) thermal insulation) in the reported year, m^2; $F_{h\ t\ r}$ – heating area of buildings (previously existed in the base year) in reported year with the renewed (improved) thermal insulation, m^2; $k_{h\ b}$ – average heat transfer factor of heated buildings in the base year, (W/m^2*K); $k_{h\ n}$ – heat transfer factor of heated buildings with the new thermal insulation (new buildings or old ones with improved thermal insulation), (W/m^2*K).

Formula 12 – Heating period duration change factor (K_4)	
	$K_4=N_{hr}/N_{hb}$
	N_{hb},– duration of heating period in the base year, hours N_{hr} – duration of heating period in the reported year, hours

Formula 13 – Number of customers change factor (K_5)	
	$K_5 = n_{wr} / n_{wb}$

	N_{wb},– number of customers in base year; N_{wr} – number of customers in the reported year

Formula 14 – Standard specific discharge of hot water per personal account change factor (K_6)	
	$K_6 = v_{w\,r} / v_{w\,b}$
	$v_{w\,r}$ – standard specific discharge of hot water per personal account in the reported year, (in heat units, kWh/h); $v_{w\,b}$ – standard specific discharge of hot water per personal account in the base year, (in heat units, kWh/h).

Formula 15 – Hot water supply period duration change factor (K_6)	
	$K_7 = N_{wr} / N_{wb}$
	N_{wr}– duration of hot water supply service in the reported year, hours. N_{wb} – duration of hot water supply service in the base year, hours.

Formula 16 – CO_2 emissions due to electric power generation associated to the project for an i boiler-house in the base year ($E_{gen\,i}^{b}$)	
	$E_{gen}^{b} = W_b * EF_{CO2,ELEC,\,g}$
	W_b – scheduled electric power production by the all new CHP units, MWh; $EF_{CO2,ELEC,\,g}$ – Carbon Emission factor for electricity generation in Ukraine, tCO_2e/MWh;

Formula 17 – CO_2 emissions due to electric power consumption for an i boiler-house in the base year ($E_{cons\,i}^{b}$)	
	$E_{cons}^{b} = P_b * EF_{CO2,ELEC\,c}$
	P_b – electric power consumption by the boiler-houses where energy saving measures are scheduled to be implemented in the base year, MWh; $EF_{CO2,ELEC\,c}$ – Carbon Emission factors for reducing electricity consumption in Ukraine, tCO_2e/MWh;

The monitoring plan presents the quality assurance and control procedures for the monitoring process. Table 1 of Annex 3 of the PDD provides the information about type of equipment, calibration procedure and procedure of actions in case of malfunction.

Data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. The roles and responsibilities of the persons involved to monitoring process are described in full in Annex 3 and vividely demonstrated on the Scheme of data collection for Monitoring Report (Fig.An.3).

On the whole, the monitoring report reflects good monitoring practices appropriate to the project type.

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, IPCC, commercial and scientific literature etc.) but not including data that are calculated with equations

The monitoring plan indicates that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.

3.8 Leakage (40-41)

The PDD appropriately describes an assessment of the potential Indirect external leakage of CO2, CH4, N2O generated by fuel production and its transportation and appropriately explains that they are neglected, as they are not under the direct control of the enterprise.

3.9 Estimation of emission reductions or enhancements of net removals (42-47)

The PDD indicates assessment of emissions in the baseline scenario and in the project scenario as the approach chosen to estimate the emission reductions generated by the project.

The PDD provides the ex ante estimates of:

(a) Emissions for the project scenario (within the project boundary), which are:

Length of the crediting period	**Years**
2006-2030	25
Year	**Estimate of emission for the project scenario in tonnes CO_2 equivalent**
2006	834 751
2007	812 484
Subtotal 2004 - 2007	**1 647 235**
2008	788 649
2009	771 028
2010	746 645
2011	684 892
2012	729 333
Subtotal 2008 - 2012	**3 720 547**
2013	729 333
2014	729 333
2015	729 333
2016	729 333
2017	729 333
2018	729 333
2019	729 333
2020	729 333
2021	729 333
2022	729 333
2023	729 333
2024	729 333
2025	729 333
2026	729 333
2027	729 333
2028	729 333

2029	729 333
2030	729 333
Subtotal 2013 - 2030	**13 127 994**
Total estimated emission (tones of CO_2 equivalent	**18 495 776**

(b) No leakage is expected during the project activity;

(c) Emissions for the baseline scenario (within the project boundary), which are:

Length of the crediting period	**Years**
2006-2030	25
Year	**Estimate of emission for the baseline scenario in tonnes CO_2 equivalent**
2006	874 207
2007	874 207
Subtotal 2004 - 2007	**1 748 414**
2008	874 207
2009	874 207
2010	874 207
2011	874 207
2012	1 010 399
Subtotal 2008 - 2012	**4 507 228**
2013	1 010 399
2014	1 010 399
2015	1 010 399
2016	1 010 399
2017	1 010 399
2018	1 010 399
2019	1 010 399
2020	1 010 399
2021	1 010 399
2022	1 010 399
2023	1 010 399
2024	1 010 399
2025	1 010 399
2026	1 010 399
2027	1 010 399
2028	1 010 399

2029	1 010 399
2030	1 010 399
Subtotal 2013 - 2030	**18 187 182**
Total estimated emission (tones of CO_2 equivalent	**24 442 824**

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are:

Length of the crediting period	**Years**
2006-2030	25
Year	**Estimate of emission reduction in tonnes CO_2 equivalent**
2006	39 456
2007	61 724
Subtotal 2004 - 2007	**101 180**
2008	85 558
2009	103 180
2010	127 562
2011	189 315
2012	281 066
Subtotal 2008 - 2012	**786 681**
2013	281 066
2014	281 066
2015	281 066
2016	281 066
2017	281 066
2018	281 066
2019	281 066
2020	281 066
2021	281 066
2022	281 066
2023	281 066
2024	281 066
2025	281 066
2026	281 066
2027	281 066
2028	281 066
2029	281 066
2030	281 066

Subtotal 2013 - 2030	**5 059 188**
Total estimated emission reduction over the crediting period (tones of CO_2 equivalent	**5 947 049**

Emission reductions estimation after the first commitment period

The estimates referred to above are given:

(a) On a periodic basis;

(b) From 01/01/2006 to 31/12/2030, covering the whole crediting period;

(c) On a source-by-source basis;

(d) For CO2

(e) In tonnes of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol;

The formula used for calculating the estimates referred above, which is

$$ERUs = \sum[E_i^b - E_i^r]; \quad [t\ CO_2e]$$

where:
ERUs - Total annual emission reduction [t CO_2e]
E^b_i - Baseline CO_2 emissions [t CO_2e]
E^r_i - CO_2 emissions in the reported year [t CO_2e].

[i] index – boiler-house;
[b] index – relates to base year;
[r] index – relates to reporting year

is consistent throughout the PDD.

Data sources used for calculating the estimates referred to above, such as:

- Guidance "Standardized emission factors for Ukrainian electrical grid"; (version 5, February 02 2007), executed by Global Carbon B.V.;
- Supplier's report/analytical report of chemical laboratory ;
- Report of metrological service;
- State Building Standards (B.2.6-31:2006);
- Intergovernmental Panel on Climate Change, IPCC, 2006 Volume 2, Table 2.2, page 2.17

are clearly identified, reliable and transparent.

Emission factors, such as EF (carbon emission factor for Ukrainian electrical grid), Cef (carbon emission factor for natural gas) were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The estimation referred to above is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The estimates referred to above are consistent throughout the PDD.

3.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as

- Environmental Impact Assessment;
- Water Code of Ukraine;
- State Standard 28.74-82 "Hygiene Rules and Quality Control";
- Building Standards and Rules 4630-92;
- Land Code of Ukraine;
- State Standard 17.4.1.02.-83 "Protection of Nature, Soils. Classification of chemical substances for pollution control";
- Law of Ukraine "On wastes».

The enterprise also provides reports by the following official annual statistical forms:

- Data on protection of atmospheric air, which contains information on amounts of
trapped and neutralized atmospheric pollutants, itemized emissions of specific pollutants, number of emission sources, measures on reduction of emissions into the atmosphere, emissions from particular groups of pollution sources;
- Data on water use, which presents information on consumption of water, discharge of waste water, and content of pollutants in it, capacity of treatment facilities, etc.;
- Data on formation, use, neutralization, transportation and placement of industrial
and household waste, which presents the annual balance of waste flow, by waste types and hazard classes.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party, if the

analysis referred to above indicates that the environmental impacts are considered significant by the project participants or the host Party.

3.11 Stakeholder consultation (49)

No stakeholders' comments were received.

4 SUMMARY AND REPORT OF HOW DUE ACCOUNT WAS TAKEN OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES

No comments, pursuant to paragraph 32 of the JI Guidelines, were received.

5 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the»Rehabilitation of the District Heating System of Zaporizhzhia City" project of OJSC "Oblteplokomunenergo" located in Zaporizhzhia city, Ukraine. The determination 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 determination consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final Determination report and opinion.

Project participant/s used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides analysis of investment, technological and other barriers to determine that the project activity itself is not the baseline scenario.

By synthetic description of the project, the project is likely to result in reductions of GHG emissions partially. An analysis of the investment and technological barriers and investment analisys demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation «Rehabilitation of the District Heating System of Zaporizhzhia City" versions 01, 03 and the subsequent follow-up interviews during site-visit have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the

relevant UNFCCC requirements for the JI and the relevant host country criteria.

The determination is based on the information made available to us and the engagement conditions detailed in this report.

6 REFERENCES

Category 1 Documents:
Documents provided by OJSC "Oblteplokomunenergo" that relate directly to the GHG components of the project.

/1/ PDD «Rehabilitation of the District Heating System of Zaporizhzhia City" project of OJSC "Oblteplokomunenergo" version 01 dated 10/11/2010
/2/ PDD «Rehabilitation of the District Heating System of Zaporizhzhia City" project of OJSC "Oblteplokomunenergo" version 03 dated 10/12/2010
/3/ Zpr_Appendix_1 – excel file
/4/ Zpr_Appendix_2 – excel file
/5/ Zpr_Appendix_3-7 – excel file
/6/ Zpr_Appendix_3-7v2 – excel file
/7/ Zpr_Appendix_8_NPV_IRR– excel file
/8/ Zpr_Appendix_1-2-8 – excel file
/9/ Letter of Endorsement #1900/23/7 dated 16/11/2010 issued by National Environmental Investment Agency of Ukraine.
/10/ Guidelines for Users of the Joint Implementation Project Design Document Form/Version 04, JISC.
/11/ JISC Guidance on criteria for baseline setting and monitoring. Version 02.
/12/ Tool for the demonstration and assessment of additionality, Version 05.2.
/13/ Glossary of Joint Implementation Terms, Version 03.

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

/1/ Contract # 553, Kyiv, from 11.04.2005, Institute of industrial ecology, Execution of works on revision, manufacturing, starting up and adjusting and putting into operation two heatutilized gas-purifying installations to boilers
/2/ Zaporizhzhya, Zaporizhzhyan heat engineers have to refuse from gas purchase
/3/ Environment of habitation, Zaporizhzhya, battle for the heat
/4/ Ukrainian academy of architecture, Energy Saving in buildings, # 5-2009 (#48), Kyiv, october 2009
/5/ Center of Energy Saving of Ukraine is transferred to Zaporszhzhya
/6/ Concern "Mis'ki teplovi merezhi", Zaporizhzhya, Head Layterman Igor Abramovych, Diploma for successful work on raising economic efficiency…

/7/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 3rd place in competition for status "The best enterprice of communal heat energy of Ukraine" in the 1st quarter 2006

/8/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 1st place in competition for status "The best enterprice of communal heat energy of Ukraine" in the 1st half year 2006

/9/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 3rd place in competition for status "The best enterprice of communal heat energy of Ukraine" during 2006

/10/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 3rd place in competition for status "The best enterprice of communal heat energy of Ukraine" in the 1st quarter 2007

/11/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 1st place in competition for status "The best enterprice of communal heat energy of Ukraine" in the 1st half year 2007

/12/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych,Diploma for 1st place in competition for status "The best enterprice of communal heat energy of Ukraine" during 9 months 2007

/13/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Layterman Igor Abramovych, Diploma for successful work on raising economic efficiency…

/14/ Concern «Mis'ki teplovi merezhi», Zaporizhzhya, Head Fomich Sergiy Volodymyrovych,Diploma for 2nd place in competition for status "The best enterprice of communal heat energy of Ukraine" in the 1st quarter 2010

/15/ Kozak palace, Diploma of participant of 7th specialized exhibition Energy, november 10-12, 2010, Zaporizhzhya, Concern «Mis'ki teplovi merezhi»

/16/ Ulrasonic gas meter, "Курс 01", G 1000Б, Manufactured in Ukraine in 2007, № 02197

/17/ Gas volume corrector, Manufactured in Ukraine, 1ExibIIAT4XIP66

/18/ Converter РАДМІР

/19/ Statement of working commision on acceptance of complited construction equipment, Zaporizhzhya, 30.12.2009

/20/ Statement of working commision on acceptance of complited construction buildings, facilities, Zaporizhzhya, 31.12.2008

/21/ Statement of working commision on acceptance of complited construction building, facility, Zaporizhzhya, 24.12.2008

/22/ Statement of working commision on acceptance of complited construction building, facility, Zaporizhzhya, 24.12.2008

/23/ Statement of working commision on acceptance of complited construction objects, Zaporizhzhya, 30.11.2006

/24/ Direction # 82\1 from 30.11.2006, Zaporizhzhya "On setting into operation MF"

/25/ Statement of working commision on acceptance of complited construction buildings, facilities, Zaporizhzhya, 21.08.2006

/26/ Statement # 2 acceptance of execution of contract works in september 2010, customer - Concern «Mis'ki teplovi merezhi»

/27/ Inspection of State Architectural and Construction Control in Zaporizhzhyan region, Permit on building works execution from 25.06.2010, # 353-10, Concern «Mis'ki teplovi merezhi»

/28/ Statement of working commision on acceptance of complited construction buildings, facilities, Zaporizhzhya,10.12.2008, Concern «Mis'ki teplovi merezhi»
/29/ Statement of working commision on acceptance of complited construction equipment, Zaporizhzhya, 29.12.2009, Concern «Mis'ki teplovi merezhi»
/30/ Statement of working commision on acceptance of complited construction buildings, facilities, Zaporizhzhya,31.12.2007, Concern «Mis'ki teplovi merezhi»
/31/ Statement of working commision on acceptance of complited construction building, facility, Zaporizhzhya,25.12.2006, Concern «Mis'ki teplovi merezhi»
/32/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2006
/33/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2006, Registered 16.04.2006, # 445
/34/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2006
/35/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2007, Registered 30.01.2007, # 13
/36/ Statement of working commision on acceptance of complited construction equipment, Zaporizhzhya, 29.10.2009, Concern «Mis'ki teplovi merezhi»
/37/ Form 2, Statement of working commision on readiness of reconstructed and modernized object for presentation to State Admission committee, Zaporizhzhya, 23.10.2006, Concern «Mis'ki teplovi merezhi»
/38/ Form 2, Statement of working commision on readiness of complited constructed object for presentation to State Admission committee, Zaporizhzhya, 18.12.2008, Concern «Mis'ki teplovi merezhi»
/39/ Statement of working commision on acceptance of complited construction building, facility, Zaporizhzhya,26.12.2006, Concern «Mis'ki teplovi merezhi»
/40/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2009
/41/ Statement of State Admission committee on acceptance of complited construction object, Zaporizhzhya, 2009, Registered 11.07.2009, # 125
/42/ Head of Zaporizhzhya, Direction # 79p, 09.02.2009, Zaporizhzhya, On approval of statement of State Admission Committee on object operation admission "Systems of heat supply Ordzhonikidze, Zhovtnevyi regions, Zaporizhzhya - reconstructio of heat network in Gagarina, Yatsenko, Geroiv Stalingradu str."
/43/ Statement of working commision on acceptance of complited construction building, facility, Zaporizhzhya,26.12.2006, Concern «Mis'ki teplovi merezhi»
/44/ Utility "Heat network of Komunarskiy region", Design and construction bureau, License # 178031 from 16.06.2005
/45/ Statement on ecological consequenses
/46/ Statement on intentions
/47/ Form 2, Statement of working commision on readiness of complited constructed object for presentation to State Admission committee, Zaporizhzhya, 02.07.2008, Concern «Mis'ki teplovi merezhi»
/48/ Contract # 32121458/1/10/2 on heat energy usage, Zaporizhzhya, 21.04.2010
/49/ Scheme of heating main, that is on the account of consumer
/50/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in november 2004

/51/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in december 2004
/52/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in october 2004
/53/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in september 2004
/54/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in august 2004
/55/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in august 2004
/56/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in july 2004
/57/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in juny 2004
/58/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in may 2004
/59/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in april 2004
/60/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in february 2004
/61/ Statement on gas expenditure according to indications of counter devices Concern «Mis'ki teplovi merezhi» in january 2004
/62/ National Agency of ukraine on assurance of effective usage of energy resourses. Conclusion of effective recognition of the project regarding the introduction of advanced energy technologies to produce alternative fuel sources,# 23 from 28.08.2009
/63/ Annex to Conclusion # 23, # 745-01/14/3-0 from 31.08.2009
/64/ Contract of admission and transferring of natural gas, Kyiv, 31.05.2004
/65/ Concern «Mis'ki teplovi merezhi», Average temperature of external air during heating period

Persons interviewed:

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

/1/ Igor Laiterman - Deputy Director General for Development of heating systems and energy saving of Concern "Mis'ki teplovi merezhi"

/2/ Ludmyla Roganchuk - Head of Production Department of Concern "Mis'ki teplovi merezhi"

/3/ Natalia Konareva – Head of the Technical Department of Concern "Mis'ki teplovi merezhi"

/4/ Natalia Kara – Head of the Sales Department of Concern "Mis'ki teplovi merezhi"

/5/ Nonna Pawluk – Institute of Engineering Ecology representative

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APPENDIX A: DETERMINATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

DETERMINATION PROTOCOL

Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 02)

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
Guidelines for JI PDD Form Users Section A General description of the project					
A.1. Title of the project					
A.1	Is the title of the project	Reconstruction of Rehabilitation	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	presented? Is the sectoral scope to which project pertains presented? Is the current version number of the document presented? Is the date when the document was completed presented?	of the District Heating System of Zaporizhzhia City Sectoral scopes: • 1. Energy industries (renewable / non-renewable sources); • 2. Energy distribution; • 3. Energy demand. PDD version number: 03 Data of Completion: 10/12/2010			
A.2 Description of the project					
A.2	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description). Is the history of the project (incl. its JI component) briefly summarized?	Yes, summarizing explanation provided.	N/A	N/A	OK
A.3 Project participants					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
A.3	Are project participants and Party(ies) involved in the project listed? Is contact information provided in Annex 1 of the PDD?	Yes, project participants, Party(ies) and contact information provided.	N/A	N/A	OK
A.4 Technical description of the project					
A.4.1	Location of the project	Provided.	N/A	N/A	OK
A.4.1.1	Host Party(ies)	Ukraine	N/A	N/A	OK
A.4.1.2	Region/State/Province etc.	Zaporizhzhia region.	N/A	N/A	OK
A.4.1.3	City/Town/Community etc.	Zaporizhzhia city.	N/A	N/A	OK
A.4.1.4	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Provided.	N/A	N/A	OK
A.4.2. Technologies to be employed, or measures, operations or actions to be implemented by the project					
A.4.2	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	Yes, technologies to be employed, or measures, operations or actions to be implemented by the project were described.	N/A	N/A	OK
A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral					

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
policies and circumstances					
A.4.3	Is it explained briefly how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page.)	Emissions of GHG will be reduced by increasing of fossil fuel (mainly natural gas) consumption efficiency and heat distributing efficiency at District Heating System of Zaporizhzhia City (Concern "Mis'ki teplovi merezhi").	N/A	N/A	OK
A.4.3.1. Estimated amount of emission reductions over the crediting period					
A.4.3.1	Is the length of the crediting period Indicated? Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	CAR1: Please provide Table A.2 in line with GUIDELINES FOR USERS OF THE JI PDD FORM Version 04. Please provide emission reduction for early crediting, crediting and post crediting periods in separately.	CAR1: This is provided in the PDD version 03.	The issue is closed.	OK
A.5. Project approval by the Parties involved					
A.5	Is written project approvals by the Parties involved attached?	CL1: Please, provide in PDD number and date of Letter of Endorsement.	CL1: Ukrainian DFP (the National Environmental Investment Agency of Ukraine) has issued the Letter of Endorsement for this JI project (#1900/23/7 dated 16.11.2010)	The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		CL2: Please provide contract between OJSC "Oblteplocomunenergo" and Institute of Engineering Ecology.	CL2: Agreement # 733/497 dated 01.10.2010 between OJSC "Oblteplokomunenergo" and Institute of Engineering Ecology on development of the Joint Implementation Project on Green House Gas Emissions Reduction due to fuel saving through rehabilitation of the district heating system of Zaporizhzhia city is referenced in PDD v.03.	The issue is closed.	OK
DVM					
Project approvals by Parties					
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	CAR2: The project has no approval of the host Party and sponsor Party. Please provide Letters of Approval.	CAR2: After finishing project determination report, the PDD and Determination Report will be submitted to the National Environmental Investment Agency of Ukraine for receiving the Letter of Approval. The Letter of Approval from the country - investor will be provided after approval of project by Ukraine.	The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
19	Does the PDD identify at least the host Party as a "Party involved"?	Ukraine is the Host Party.	N/A	N/A	OK
19	Has the DFP of the host Party issued a written project approval?	See CAR2 above.	-	-	-
20	Are all the written project approvals by Parties involved unconditional?	See CAR2 above.	-	-	-
Authorization of project participants by Parties involved					
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: − A written project approval by a Party involved, explicitly indicating the name of the legal entity? or − Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	Yes, National Agency of the Ecological Investments of Ukraine issued Letter of Endorsement.	N/A	N/A	OK
Baseline setting					
22	Does the PDD explicitly indicate which of the following approaches is used	Own development methodology is used for identifying the baseline.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	for identifying the baseline? − JI specific approach − Approved CDM methodology approach				
JI specific approach only					
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	Yes, the PDD provide a detailed theoretical description in a complete and transparent manner.	N/A	N/A	OK
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters,	CAR3: Please provide key parameters and information in section B.1. of PDD in line with GUIDELINES FOR USERS OF THE JI PDD FORM Version 04. CAR4: Please provide statistic data and evidences of monthly natural gas NCV for 2004.	CAR3: This is provided in the PDD v.03. CAR4: Data on the natural gas NCV for 2004 are not used in the project PDD version 01 since the base year is 2005. The averaged per each month and year values of natural gas NCV for 2005 – 2009 provided by Concern "MTM" are presented in Appendix 1-2-8 to PDD version 03.	PDD version 03 was checked. The issue is closed. PDD version 03 and Appendix 1-2-8 were checked. The issue is closed.	OK OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?				
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	No elements or combinations of approved CDM methodologies were used.	N/A	N/A	OK
25	If a multi-project emission	Yes, used multi-project emission	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	factor is used, does the PDD provide appropriate justification?	factor justified.			
Approved CDM methodology approach only					
26 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A	OK
26 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A	OK
26 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A	OK
26 (c)	Are all explanations, descriptions and analyses pertaining to the baseline in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
26 (d)	Is the baseline identified appropriately as a result?	N/A	N/A	N/A	OK
Additionality					
JI specific approach only					
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most	Barriers analysis and common practice analysis were used to demonstrate additionality of the project activity. The developer does not conduct investment analysis thereby bypassing step 2 as allowed by the Tool. Among the barriers identified at the Step3 the Developer is referring to the investment barrier as one of the key factors preventing the project from implementation in absence of JI activity providing extensive justification for this statement.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	recent version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".				
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	The developer used Tool for demonstration and assessment of additionality ver 05.2. It is a good practice of additionality justification.	N/A	N/A	OK
29 (b)	Are additionality proofs provided?	Yes, additionality proofs provided.	N/A	N/A	OK
29 (c)	Is the additionality demonstrated appropriately as a result?	Yes.	N/A	N/A	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	When proving the additionality of the project the developer is using latest version of the Tool for the demonstration and assessment of additionality version 05.2 (hereinafter referred as the Tool) but there is minor deviation from the form prescribed by the document: CAR14: The developer omitted	CAR14: This is corrected in	PDD version 03 was	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		sub-step 4b where the relevant statement regarding similar JI projects shall be moved from sub-step 4a.	the PDD v.03.	checked. The issue is closed.	
		CL10: On page 22 of the PDD the Developer states that all project activities require EUR 29 mln., while the figures available from Appendix 8 clearly show the amount of investment as EUR 109.447 mln. Please clarify/correct.	CL10: All project activities require EUR 105.235 mln as in Appendix 8. This mistake is corrected in PDD v.03.	PDD version 03 and Appendix 8 were checked. The issue is closed.	OK
		CL11: Please recheck EUR/UAH exchange rates used for calculations in Appendixes as they do not match actual historic values. For example exchange rate for 2006 is indicated as 6,1 while in fact the weighted average exchange rate for 2006 was 6.3567 (source: bank.gov.ua). The same applies to other periods as well.	CL11: The exchange rate values are corrected according to www.bank.gov.ua in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
		CL12: Please pay attention that the common practice of the investment analysis requires the	CL12: In course of development of the PDD for this project, we did not	PDD version 03 was checked. The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		fair value of the assets at the end of the end of assessment period to be included to the cash flow for the final year of the financial model. It can be calculated as the residual value of the project assets. For the present project the operational lifespan of the assets is indicated to be 25 years (page 45 of the PDD), consequently for example after 15 years of operation the value of the assets may be determined as 40% of their initial value.	conduct an investment analysis which is allowed by the Additionality Tool. For the approximate investment barrier analysis provided in the PDD such deep study seems to be not necessary. From the other side, the proposed example of evaluation of the residual value of the project assets seems to be very rough and such method unlikely would improve the accuracy of calculations, thus seems unreasonable.		
		CL13: Please indicate whether tariffs, costs and investment values are indicated with VAT included or not. Please note that the general approach is to make calculations using all input values (investment costs, tariffs and prices) with VAT excluded. In case if the company is not VAT payer calculations shall include VAT.	CL13: The main investment and other values are indicated without VAT.	The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		CL14: Please provide the reference for the source of electricity and natural gas tariff data.	CL14: Electricity and natural gas tariff data are taken from history information of Concern "MTM". The reference is provided in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
		CAR15: The amounts of the natural gas savings from SER utilization indicated in Zpr_Appenix_1.xls file sheet "Total" for the years 2007 and 2008 do not match those calculated in Zpr_Appendix_3-7.xls file. Please correct.	CAR15: This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
		CAR16: Zpr_Appenix_2.xls sheet "total" shows natural gas savings of 5222 thous. m3 in 2005, while Appendixes 1 and 8 clearly do not account for any savings during 2005. Please correct.	CAR16: This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
		CAR17: Zpr_Appenix_8_NPV_IRR.xls sheet "total" shows the investment costs for rehabilitation	CAR17:This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		of the heat network different from those indicated in Appendix 2. Please correct. CAR18: IRR calculations in the present financial model currently account for the period of 2005-2016. Taking into account the fact that major components of the project assets are commissioned as late as 2011 and 2012 it means that the model account for only 4-5 years of operation of the major part of the equipment. This period is obviously to short for the proper financial analysis. I would recommend extending this period until 2022 which is quite easily attainable as the necessary inputs are already present in Zpr_Appendix_8_NPV_IRR.xls file. CAR19: Financial model currently does not account for inflation during the future periods, which is not acceptable for development of the long term financial model. For	CAR18: IRR calculations in Zpr_Appendix_1-2-8 file account for the period of 2005-2016 since in 2016 the current balance becomes positive. CAR19: Since in the future periods (after 2012) only incomes are expected and no investments, not accounting of	PDD version 03 and Zpr_Appendix_1-2-8 were checked. The issue is closed. The issue is closed.	OK OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		example for proper adjustment of the future cash flows we may use expected inflation rate derived from 10 years average inflation index for EuroZone (we apply EuroZone inflation because financial calculations are made in Euros). For the period of 2000-2009 it is 2,1%. Source is Eurostat http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&language=en&pcode=tsieb060&tableSelection=1&footnotes=yes&labeling=labels&plugin=1.	inflation corresponds to the conservative approach.		
		CL15: The benchmark used for comparison of the IRR calculated and discounting of the cash flows is overly conservative. I would suggest the employment of the benchmark (discount rate) derived from the average interest rates for the loans in foreign currencies in Ukraine. For example during November 2010 it fluctuated between 9,4 and 9,8% which is much more realistic	CL15: This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
		value than 7,75% introduced by the Developer. Source: http://bank.gov.ua/Fin_ryn/Pot_tend/2010/11.10.pdf			
Approved CDM methodology approach only					
31 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A	OK
31 (b)	Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the project?	N/A	N/A	N/A	OK
31 (c)	Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology?	N/A	N/A	N/A	OK
31 (d)	Are additionality proofs provided?	N/A	N/A	N/A	OK
31 (e)	Is the additionality demonstrated appropriately as a result?	N/A	N/A	N/A	OK
Project boundary (applicable except for JI LULUCF projects					
JI specific approach only					
32 (a)	Does the project boundary defined in the PDD	Yes, the project boundary defined in line with all presented	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	requirements.			
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	Yes, the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above.	N/A	N/A	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	Yes, project boundary represented Fig.B.4 and Fig.B.5. The scheme of project boundaries and in tabular form in Table B.4. Sources of emissions included in consideration or excluded of it.	N/A	N/A	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	Yes. All emissions sources are clearly justified. Only CO2 emissions were taken into account in project.	N/A	N/A	OK
Approved CDM methodology approach only					
33	Is the project boundary	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	defined in accordance with the approved CDM methodology?				
Crediting period					
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	CAR5: Please provide justification of starting date of the project (11/04/2005). Explain what action was in this date and provide documents that justified it.	CAR5: On this date 11/04/2005 the Agreement was signed between Concern "Miski teplovi merezhi" and Institute of Engineering Ecology (#533 dated 11/04/2005) as the first stage of the joint implementation project, as well as the requirement specification for manufacturing of two heat utilizers was signed on the same date.	PDD version 03 and supporting documents were checked. The issue is closed.	OK
34 (a)	Is the starting date after the beginning of 2000?	Yes.	N/A	N/A	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	CAR6: Please provide the expected operational lifetime of the project in years and months.	CAR 6: This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	CAR7: Please provide the expected crediting period of the project in years and months.	CAR 7: This is corrected in the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
34 (c)	Is the starting date of the crediting period on or after	Yes, starting date of the crediting period is on the date the first	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the date of the first emission reductions or enhancements of net removals generated by the project?	emission reductions are generated.			
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	Yes, ERUs generation starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.	N/A	N/A	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	CAR8: Please provide estimation of emission reduction for period beyond 2012	CAR8: The estimation of emission reduction for period beyond 2012 is provided in text and Zpr_Appendix_1-2-8 to PDD v.03.	PDD version 03 and Zpr_Appendix_1-2-8 were checked. The issue is closed.	OK
Monitoring plan					
35	Does the PDD explicitly indicate which of the following approaches is used? −JI specific approach	Own development monitoring methodology was used.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	−Approved CDM methodology approach				
JI specific approach only					
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	Yes.	N/A	N/A	OK
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	See CAR4 above.	-	-	-
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources?	Yes.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	− Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?				
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	Yes. Default carbon emission factors for fuels are same during all crediting period.	N/A	N/A	OK
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	Yes, all values used in calculations are in line with presented requirements.	N/A	N/A	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	CAR9: Please specify in PDD the procedures to be followed if expected monitored data are unavailable.	CAR 9: This information is added into the PDD v.03	PDD version 03 was checked. The issue is closed.	OK
36 (b) (iv)	Are International System Unit (SI units) used?	No.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	Yes.	N/A	N/A	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	Yes, use of parameters, coefficients, variables, etc. is consistent between the baseline and monitoring plan.	N/A	N/A	OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	Yes, the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring".	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	Yes, the monitoring plan explicitly and clearly distinguishes all relevant data and parameters.	N/A	N/A	OK
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	Yes.	N/A	N/A	OK
36 (f)	Does the monitoring plan	Yes, all necessary algorithms and	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/ removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	formulae are provided.			
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	Yes, all necessary algorithms and formulae are clearly described.	N/A	N/A	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Yes, all variables, equation format, subscripts etc. used consistent.	N/A	N/A	OK
36 (f) (iii)	Are all equations numbered?	Yes.	N/A	N/A	OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes.	N/A	N/A	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	Used algorithms/procedures are in line with state norms and are concervative.	N/A	N/A	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Yes.	N/A	N/A	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure	Yes.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	for calculating the emissions or net removals of the baseline ensured?				
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	No, all algorithms and formulas clearly explained	N/A	N/A	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Yes.	N/A	N/A	OK
36 (f) (vii)	Are references provided as necessary?	References are not necessary.	N/A	N/A	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Yes, all implicit and explicit assumptions explained in a transparent manner.	N/A	N/A	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	CL3: Please clarify which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed.	CL3: This information is added into the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key	CL4: Please clarify is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or	CL4: This information is added into the PDD v.03.	PDD version 03 was checked. The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	parameters for the calculation of emission reductions or enhancements of net removals provided?	enhancements of net removals provided?			
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	CL5: Please clarify is national or international monitoring standard has to be and/or is applied to certain aspects of the project? If yes, mentioned them in PDD and provide relevant references.	CL5: The developer of this JI project has elaborated the own specific for such type projects approach for baseline setting and monitoring.	PDD version 03 was checked. The issue is closed.	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	Statistic data used in line with relevant state and industrial norms.	N/A	N/A	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate,	Yes.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?				
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	CL6: Please specify in PDD departments of Concern «Mis'ki teplovi merezhi» and Institute of Engineering Ecology that take a part in monitoring activity and what parameters they collected.	CL6: This information is added into the PDD v.03	PDD version 03 was checked. The issue is closed.	OK
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Proposed monitoring plan is typical for such project activity.	N/A	N/A	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not	Yes.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	including data that are calculated with equations?				
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	CAR10: Please indicate in monitoring plan that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.	CAR 10: This information is added into the PDD v.03	PDD version 03 was checked. The issue is closed.	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?	No any selected elements or combinations of approved CDM methodologies or methodological tools used in monitoring plan.	N/A	N/A	OK
Approved CDM methodology approach only					
38 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A	OK
38 (a)	Is the approved CDM methodology the most recent	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?				
38 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A	OK
38 (c)	Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A	OK
38 (d)	Is the monitoring plan established appropriately as a result?	N/A	N/A	N/A	OK
Applicable to both JI specific approach and approved CDM methodology approach					
39	If the monitoring plan indicates overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly	There are no overlapping monitoring periods during the crediting period.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	identifiable components for which emission reductions or enhancements of removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined				

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	project components, justify its need and state how the conditions mentioned in (a)-(c) are met?				
Leakage					
JI specific approach only					
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	No leakage is expected in proposed project activity.	N/A	N/A	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	No leakage is expected in proposed project activity.	N/A	N/A	OK
Approved CDM methodology approach only					
41	Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology?	N/A	N/A	N/A	OK
Estimation of emission reductions or enhancements of net removals					
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the	Assessment of emissions or net removals in the baseline scenario and in the project scenario was used.	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	baseline scenario and in the project scenario (b) Direct assessment of emission reductions				
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	Emissions for the project, baseline scenario and emission reductions were ex ante estimated.	N/A	N/A	OK
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable?	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	(c) Emission reductions or enhancements of net removals adjusted by leakage?				
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline	CL7: Please calculate the annual average of estimated emission reductions by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve. CAR11: Please provide sources of data from: Zpr_Appendix_1-2-8: • columns "Average real losses before rehabilitation, %" and "Average real losses after rehabilitation, %". Zpr_Appendix_3-7: • sheets "Частотники", column "Power saving, ths kWh"; • sheets "теплопункти", column "Power saving,	CL7:The values are the same since the crediting period according to the PDD v.03 consists of the integer number of years CAR11: Zpr_Appendix_1-2-8: The calculations of losses in the distribution network (baseline and project) were made in accordance with methodology «МУ 34-70-080-84». Losses in the distribution network are used only for preliminar estimation of potential emission reductions. For monitoring of actual emission reductions in any reported year, the developed methodology will be used, that	PDD version 03 was checked. The issue is closed. PDD version 03 and Zpr_Appendix_3-7v2, Zpr_Appendix_1-2-8 were checked. The issue is closed.	OK OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD?	Gcal"; • sheets "BEP", column "SER, Gcal/year" for 2011, 190000. If necessary provide relevant calculations. CL8: Please clarify how Average real losses can be "-0,3%" (see Zpr_Appendix_2). Please clarify if it means that the pipeline system generate heat?	does not contain efficiency of rehabilitation of the distribution networks. Zpr_Appendix_3-7v2: - Program of energy saving of Concern "MTM" - "Collection of investment projects on modernization of the District Heating System of Zaporizhzhia City"- JSC ESCO "Ecological Systems. – Zaporizhzhia. – 2010. – 74 p. CL8:This mistake is corrected in PDD v.03.	PDD version 03 was checked. The issue is closed.	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	(h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?				
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Yes, the PDD include an illustrative ex ante emissions calculation.	N/A	N/A	OK
Approved CDM methodology approach only					
47 (a)	Is the estimation of emission reductions or enhancements of net removals made in accordance with the approved CDM methodology?	N/A	N/A	N/A	OK
47 (b)	Is the estimation of emission reductions or enhancements of net removals presented in	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the PDD: − On a periodic basis? − At least from the beginning until the end of the crediting period? − On a source-by-source/sink-by-sink basis? − For each GHG? − In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? − Are the formula used for calculating the estimates consistent throughout the PDD? − Are the estimates consistent throughout the PDD? − Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or				

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	enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?				
Environmental impacts					
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	CL9: Please clarify in PDD if Environmental Impact Assessment is not needed or provide references on relevant EIA.	CL9: According to the Ukrainian regulations, the design documentation for the new building, reconstruction and technical re-equipment of industrial and civil objects must include the environmental impact assessment. Concern "MTM" has the necessary Environmental Impact Assessments for its activity. An example on EIA is described in PDD v.03.	PDD version 03 was checked. The issue is closed.	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all	See CL9 above.			

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	references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?				
Stakeholder consultation					
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	CAR12: No public stakeholder consultation process was conducted for EIA of proposed project. CAR13: Please provide in PDD: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	CAR12: As project activity won't provide negative influence on environment and negative social effect, special public discussion was not conducted. CAR13: The authorities of Zaporizhzhya city have expressed the support for the project by Decision dated 31.01.2007 # 46 on approving the Program of Concern "MTM" on energy and resource saving for 2006-2010.	The issue is closed. The issue is closed.	OK OK
Determination regarding small-scale projects (additional elements for assessment)					
50	Does the PDD appropriately specify and justify the SSC project type(s) and	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	category(ies) that fall under: (a) One of the types and thresholds of JI SSC projects as defined in .Provisions for joint implementation small-scale projects.? If the project contains more than one JI SSC project type component, does each component meet the relevant threshold criterion? (b) One of the SSC project categories defined in the most recent version of appendix B of annex II to decision 4/CMP.1, or an additional project category approved by the JISC in accordance with the relevant provision in "Provisions for joint implementation small-scale projects"?				
51	Does the PDD appropriately specify and justify the SSC project type(s) and category(ies) that fall under: (a) One of the types and	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	thresholds of JI SSC projects as defined in .Provisions for joint implementation small-scale projects.? If the project contains more than one JI SSC project type component, does each component meet the relevant threshold criterion? (b) One of the SSC project categories defined in the most recent version of appendix B of annex II to decision 4/CMP.1, or an additional project category approved by the JISC in accordance with the relevant provision in .Provisions for joint implementation small-scale projects.?				
Applicable to bundled JI SSC projects only					
52 (a)	Do all projects in the bundle: (i) Have the same crediting period? (ii) Comply with the provisions for JI SSC projects defined in	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	"Provisions for joint implementation small-scale projects", in particular the thresholds referred to in 50 (a) above? (iii) Retain their distinctive characteristics (i.e. location, technology/measure etc.)?				
52 (b)	Does the composition of the bundle not change over time?	N/A	N/A	N/A	OK
52 (c)	Has the AIE received (from the project participants): (i) Information on the bundle using the form developed by the JISC (F-JI-SSCBUNDLE)? (ii) A written statement signed by all project participants indicating that they agree that their individual projects are part of the bundle and nominating one project participant to represent all project participants in communicating with the JISC? (iii) Indication by the Parties	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	involved that they are aware of the bundle in their project approvals referred to in 19 above?				
53	If the project participants prepared a single SSC PDD for the bundled JI SSC projects, do(are) all the projects: (a) Pertain to the same JI SSC project category? (b) Apply the same technology or measure? (c) Located in the territory of the same host Party?	N/A	N/A	N/A	OK
54	If the project participants prepared separate SSC PDDs for the bundled JI SSC projects, do(are) all the projects: (a) Have SSC PDDs been prepared for all JI SSC projects in the bundle? (b) Does each SSC PDD contain a single JI SCC project in the bundle?	N/A	N/A	N/A	OK
55	If the projects in the bundle use the same baseline, does	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the F-JI-SSC-BUNDLE provide an appropriate justification for the use of the same baseline considering the particular situation of each project in the bundle?				
56	Does the PDD indicate which of the following approaches is used for establishing a monitoring plan? (a) By preparing a separate monitoring plan for each of the constituent projects; (b) By preparing an overall monitoring plan including a proposal of monitoring of performance of the constituent projects on a sample basis, as appropriate.	N/A	N/A	N/A	OK
56 (b)	If the approach 57 (b) above is used, (i) Are all the JI SSC projects located in the territory of the same host Party? (ii) Do all the JI SSC projects pertain to the same project category?	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	(iii) Do all the JI SSC projects apply the same technology or measure? (iv) Does the overall monitoring plan reflect good monitoring practice appropriate to the bundled JI SSC projects and provide for collection and archiving of the data needed to calculate the emission reductions achieved by the bundled projects?				
Applicable to all JI SSC projects					
57	Is the leakage only within the boundaries of non-Annex I Parties considered?	N/A	N/A	N/A	OK
Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment)					
58	Does the PDD appropriately specify how the LULUCF project conforms to: (a) The definitions of LULUCF activities included in paragraph 1 of the annex to decision 16/CMP.1, applying good practice guidance for LULUCF as decided by the CMP, as	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	appropriate? (b) In the case of afforestation, reforestation and/or forest management projects, the definition of "forest" selected by the host Party, which specifies: (i) A single minimum tree crown cover value (between 10 and 30 per cent)? and (ii) A single minimum land area value (between 0.05 and 1 hectare)? and (iii) A single minimum tree height value (between 2 and 5 metres)?				
JI specific approach only					
59	Baseline setting - in addition to 22-26 above Does the PDD provide an explanation how the baseline chosen: − Takes into account the good practice guidance for LULUCF, developed by the IPCC? − Ensures conformity with the definitions, accounting rules, modalities and	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	guidelines under Article 3, paragraphs 3 and 4, of the Kyoto Protocol?				
60	Project boundary - alternative to 32-33 (a) Does the project boundary geographically delineate the JI LULUCF project under the control of the project participants? (a) If the JI LULUCF project contains more than one discrete area of land, (i) Does each discrete area of land have a unique geographical identification? (ii) Is the boundary defined for each discrete area? (ii) Does the boundary not include the areas in between these discrete areas of land? (b) Does the project boundary encompass all anthropogenic emissions by sources and removals by sinks of GHGs which are: (i) Under the control of the project participants;	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	(ii) Reasonably attributable to the project; and (iii) Significant? (c) Does the project boundary account for all changes in the following carbon pools: − Above-ground biomass; − Below-ground biomass; − Litter; − Dead wood; and − Soil organic carbon? (c) Does the PDD provide: (i) The information of which carbon pools are selected? (ii) If one or more carbon pools are not selected, transparent and verifiable information that indicates, based on conservative assumptions, that the pool is not a source? (d) Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria in (b) above?				
61 (a)	Project boundary -	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	alternative to 32-33 (cont.) Are the delineation of the project boundary and the gases and sources/sinks included appropriately described and justified in the PDD?				
61 (b)	Project boundary - alternative to 32-33 (cont.) Are all gases and sources/sinks included explicitly stated, and the exclusions of any sources/sinks related to the baseline or the LULUCF project appropriately justified?	N/A	N/A	N/A	OK
62	Monitoring plan - in addition to 35-39 Does the PDD provide an appropriate description of the sampling design that will be used for the calculation of the net anthropogenic removals by sinks occurring within the project boundary in the project scenario and, in case the baseline is monitored, in	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	the baseline scenario, including, inter alia, stratification, determination of number of plots and plot distribution etc.?				
63	Does the PDD take into account only the increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of GHGs outside the project boundary?	N/A	N/A	N/A	OK
Approved CDM methodology approach only					
64 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A	OK
64 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A	OK
64 (b)	Does the PDD provide a description of why the	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	approved CDM methodology is applicable to the project?				
64 (c)	Are all explanations, descriptions and analyses made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A	OK
64 (d)	Are the baseline, additionality, project boundary, monitoring plan, estimation of enhancements of net removals and leakage established appropriately as a result?	N/A	N/A	N/A	OK
Determination regarding programmes of activities (additional/alternative elements for assessment)					
66	Does the PDD include: (a) A description of the policy or goal that the JI PoA seeks to promote? (b) A geographical boundary for the JI PoA (e.g. municipality, region within a country, country or several countries) within which all JPAs included in the JI PoA will be implemented? (c) A description of the operational and management	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	arrangements established by the coordinating entity for the implementation of the JI PoA, including: − The maintenance of records for each JPA? − A system/procedure to avoid double counting (e.g. to avoid including a new JPA that has already been determined)? − Provisions to ensure that persons operating JPAs are aware and have agreed to their activity being added to the JI PoA? (d) A description of each type of JPAs that will be included in the JI PoA, including the technology or measures to be used? (e) The eligibility criteria for inclusion of JPAs to the JI PoA for each type of JPA in the JI PoA?				
67	*Project approvals by Parties involved - additional to 19-20* Are all Parties partly or	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	entirely within the geographical boundary for the JI PoA listed as "Parties involved" and indicated as host Parties in the PDD?				
68	*Authorization of project participants by Parties involved - additional to 21* Is the coordinating entity presented in the PDD authorized by all host Parties to coordinate and manage the JI PoA?	N/A	N/A	N/A	OK
69	*Baseline setting - additional to 22-26* Is the baseline established for each type of JPA?	N/A	N/A	N/A	OK
70	*Additionality - additional to 27-31* Does the PDD indicate at which of the following levels that additionality is demonstrated? (a) For the JI PoA (b) For each type of JPA	N/A	N/A	N/A	OK
71	*Crediting period - additional to 34* Is the starting date of the JI	N/A	N/A	N/A	OK

Guidelines for JI PDD Form Users or DVM Paragraph	Check Item	Initial finding	Response from project participants	Review of project Participants' action	Conclusion
	PoA after the beginning of 2006 (instead of 2000)?				
72	*Monitoring plan - additional to 35-39* Is the monitoring plan established for each technology and/or measure under each type of JPA included in the JI PoA?	N/A	N/A	N/A	OK
73	Does the PDD include a table listing at least one real JPA for each type of JPA?	N/A	N/A	N/A	OK
73	For each real JPA listed, does the PDD provide the information of: (a) Name and brief summary of the JPA? (b) The type of JPA? (c) A geographical reference or other means of identification? (d) The name and contact details of the entity/individual responsible for the operation of the JPA? (e) The host Party(ies)? (f) The starting date of the JPA?	N/A	N/A	N/A	OK

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	(g) The length of the crediting period of the JPA? (h) Confirmation that the JPA meets all the eligibility requirements for its type, including a description of how these requirements are met? (i) Confirmation that the JPA has not been determined as a single JI project or determined under a different JI PoA?				

MR. Oleg Skoblyk – Lead Verifier

Mr. Ihor Kachan – Verifier
Mr. Denis Pischalov - Financial Specialist