DETERMINATION REPORT "SKHIDENERGO" LTD.

DETERMINATION OF THE RECONSTRUCTION OF THE UNITS AT THE STRUCTURE UNIT "KURAKHOVSKAYA TPP" OF THE "SKHIDENERGO" LTD.

REPORT NO. UKRAINE/0039/2008

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

DETERMINATION REPORT

Date of first issue: 16/02/2010	Organizational unit Bureau Veritas Certification Holding SAS
Client: Skhidenergo ltd.	Client ref.: Yuriy Magera

Summary:

Bureau Veritas Certification has made the determination of the «Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd.» project of Skhidenergo ltd. located in Kurakhov city 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 project is submitted under the track 1 procedure.

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 the baseline and monitoring methodology developed according the Guidance on Criteria for Baseline Setting and Monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

On behalf of determination team Flavio Gomes, Bureau Veritas Certification Holding SAS Global Product Manager for Climate Change, approved final version of the Determination Report. Determination Report is signed by Ivan Sokolov authorized Bureau Veritas Certification Holding SAS Local product manager for Climate Change in Ukraine.

Report No.: UKRAINE/0039/2008	Subject Group: JI
Report title: Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd.	
Work carried out by: Nadiya Kaiiun – Team leader , Lead Verifier Oleg Skoblyk - Team member, Verifier Kateryna Zinevych – Team member, Verifier	
Work verified by: Ivan Sokolov - Internal Technical Reviewer	
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Indexing terms:

Climate Change, Kyoto Protocol, JI, Emission Reductions, Verification

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Abbreviations

AIE	Accredited Independent Entity
CAR	Corrective Action Request
CL	Clarification Request
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CH_4	Methane
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
FCCC	Framework Convention On Climate Changes
GHG	Green House Gas(es)
JI	Joint Implementation
JIP	Joint Implementation Project
JISC	Joint Implementation Supervisory Committee
I	Interview
IETA	International Emissions Trading Association
MoV	Means of Verification
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change
UES	United Energy System

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1 INTRODUCTION

Skhidenergo ltd. has commissioned Bureau Veritas Certification to determinate the JI project Improvement of the "Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd.".

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, under track 1.

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, and the project's compliance with relevant UNFCCC and host country criteria are determined 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 emission reduction 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 GHG Project Description

Kurakhovskaya TPP exploited by energy generating company Skhidenergo ltd. Installed power capacity of the Kurakhovskaya TPP is 1460 MW. All energy equipment was installed in the 1970's. The list of installed equipment:
7 boilers Ttp-109 (one boiler per unit), produced by the Taganrog boiler factory. Steam capacity 640 t/hour, steam pressure 130 kg/sm^2, temperature of the overheated steam is 545 ^{C}C.

6 turbines K-210-130, produced by the "Leningrad metal works", capacity 200 MW. Installed power capacity is 200 MW.
1 turbine K-200-130-3, produced by the "Leningrad metal works", capacity 210 MW. Installed power capacity is 210 MW.
6 power generators ТГВ-200М, produced by the “Kharkov SPC Electrotyazhmash” with the capacity of 210 MW.
1 power generator ТГВ-200, produced by the “Kharkov SPC Electrotyazhmash” with the capacity of 200 MW.
Electricity consumption for own needs -9.8% (2007).
Main, (reserve) fuel - coal, (heavy fuel oil/natural gas).
The overall efficiency of the TPP was 30.83% in 2007.
Project foresees modernization of the main and the auxiliary equipment of the all energy-generating units of the TPP according to the following schedule.

Table 1. Project Schedule.

All Units Servicing and Preparations for the Reconstruction	2004 - 2016
Unit №3	2015-2016
Unit №4	2013-2014
Unit №5	2007-2008
Unit №6	2011-2012
Unit №7	2009-2010
Unit №8	2010-2011
Unit №9	2012-2013

It includes replacement of outdated turbine equipment, control, automatic systems, and electro-technical system, modernization of the boiler equipment, electric separation system, cooling system, optimisation of the working regimes, the fuel preparation, servicing of the equipment, etc.
After the reconstruction (of all 7 units) the technical characteristics of the TPP are expected to be:
Installed power capacity - 1520 MW;
Electricity consumption for the own needs - 8.7%.
Main (reserve) fuel - coal (natural gas/heavy fuel oil).
The main objective of the Project is to make the existing power equipment of the TPP more efficient and reliable. The increased efficiency will provide a higher output and lower fuel consumption.
The increased capacity of the TPP is due to the better efficiency of the existing equipment. It will reduce the fuel consumption per unit of the energy produced by the station. Thus the GHG emission per the energy unit produced will be lowered. The Project will use the technology, which is common for this kind of TPPs with the equipment, produced in the former Soviet Union. This technology is the most efficient one for that kind of equipment and unlikely to be substituted during the next 15 – 20 years.

Thermal energy delivery is minor and getting lower (from 2.5% of the energy produced in 2003 to 1% in 2008) only because of the energy efficiency measures and lowering of the loses (the demand for the thermal energy is constant – heating for the Kurakhovo town). We make a conservative assumption that in the project scenario the thermal energy production and delivery will remain around 1% of the fuel consumption and do not take it into account in the calculations.
Other goals of the project are to:
• lower greenhouse gases emission;
• improve stability and reliability of generation and transmission of electricity;
• implement safety measures;
• improve health and safety on site.

1.4 Determination Group

The determination team consists of the following personnel:

Nadiya Kaiiun
Bureau Veritas Certification Team leader, Climate Change Lead Verifier

Oleg Skoblyk -
Bureau Veritas Certification Team member, Climate Change Verifier

Kateryna Zinevych -
Bureau Veritas Certification Team member, Climate Change Verifier

Report was reviewed by:

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 Determination and Verification Manual (IETA/PCF). The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The determination protocol serves the following purposes:

It organizes, details and clarifies the requirements JI project is expected to meet;

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It ensures a transparent determination process where the determinator will document how a particular requirement has been validated and the result of the determination.

The determination protocol consists of five tables. The different columns in these tables are described in Figure 1

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

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Determination Protocol Table 1: Mandatory Requirements			
Requirement	**Reference**	**Conclusion**	**Cross reference**
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (**OK**), a **Corrective Action Request (CAR)** or a **Clarification Request (CL)** of risk or non-compliance with stated requirements. The CAR's and CL's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, 3 and 4 to show how the specific requirement is determined. This is to ensure a transparent determination process.

Determination Protocol Table 2: Requirements checklist				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or section is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.
Determination Protocol Table 3: Baseline and Monitoring Methodologies				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements of baseline and monitoring methodologies should be met. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or section is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.

Determination Protocol Table 4: Legal requirements				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The national legal requirements the project must meet.	Gives reference to documents where the answer to the checklist question or section is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.

Determination Protocol Table 5: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 1/2/3/4**	**Summary of project owner response**	**Determination conclusion**
If the conclusions from the Determination are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 2, 3 and 4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the determination team should be summarized in this section.	This section should summarize the determination team's responses and final conclusions. The conclusions should also be included in Tables 2, 3 and 4, under "Final Conclusion".

Figure 1 Determination protocol tables

2.1 Review of Documents

The Project Design Document (PDD version 1) was submitted by Skhidenergo ltd. 20/08/2009 together with supporting documentation in terms of calculation of GHG emission.

PDD Version 1 was made publicly available for comments on Bureau Veritas Ukraine site from 30 September 2009 to 30 October 2009.

PDD Version 1 and supporting documentation as well as additional background documents related to the project design, baseline, and monitoring plan, such as Kyoto Protocol, host Country laws and regulations, JI guidelines, JISC Guidance on criteria for baseline setting and monitoring, and Guidelines for users of the JI PDD Form were reviewed.

The first deliverable of the document review was the Draft Determination Report with 12 CAR's and 24 CL's.

To address Bureau Veritas Certification corrective action and clarification requests, Skhidenergo ltd. revised the PDD and as a response issued PDD version 1.1 dated 28/10/2009, PDD version 2.1 dated 28/12/2009, PDD version 2.2 dated 18/01/2010 and finally resubmitted the PDD version 2.2.1 dated 12/02/2010.

The determination findings presented in this report relate to the project as described in the PDD, revision 1.

2.2 Follow-Up Interviews

On 30/09/2009 Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review.

Representatives of Skhidenergo ltd. and ELTA JSC were interviewed (see References). The main topics of the interviews are summarized in Table 2.

Table 2 Interview topics

Interviewed organization	Interviews Topics
Skhidenergo ltd.	➢ Organizational structure. ➢ Responsibilities and authorities. ➢ Training of personnel. ➢ Quality management procedures and technology. ➢ Rehabilitation /Implementation of equipment (records). ➢ Metering equipment control. ➢ Metering record keeping system, database.
ELTA JSC	➢ Baseline methodology. ➢ Monitoring plan. ➢ Monitoring report. ➢ Deviations from PDD.

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.

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

3 DETERMINATION FINDINGS

In the following sections, the findings of the determination are stated. The determination findings for each determination subject are presented as follows:

1) The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Determination Protocol in Appendix A.

2) Where Bureau Veritas Certification had identified issues that needed clarification or that represented a risk to the fulfillment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. 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 12 Corrective Action Requests and 24 Clarification Requests.

3) The conclusions for determination subject are presented.

3.1 Project Design

Bureau Veritas Certification recognizes that Skhidenergo ltd. Project is helping country fulfill its goals of promoting sustainable development. The project is expected to be in line with host-country specific JI requirements.

The Project Scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Emissions Reductions Units (ERUs) under the JI, based on an analysis, presented by the PDD, of investment, technological and other barriers, and prevailing practice.

The project design is sound and the geographical and temporal (17 years) boundaries of the project are clearly defined.

Outstanding issues related to project design are given in the Table 5 below (see CAR1, CAR2, CAR8, CAR9, CL1, CL2, CL3, CL4, CL9).

3.2 Baseline and Additionality

The “Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd.” project uses the baseline and monitoring approach developed according the Guidance on Criteria for Baseline Setting and Monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

The Project activity does not correspond properly to any of the Approved Methodologies. The methodology, which is very much similar to the Project activity, is AM 0061, but there is a difference in calculations. The main difference in the methodologies is that in the AM 0061 the Project boundary includes the National electricity grid whereas in the methodology used for the Project activity the grid is outside of the Project boundary. It can be explained by the fact that in AM 0061 reference project the TPP described covers about 95% of the electricity production of the country. It means that the emission factor of the TPP is similar to

the Grid emission factor and any measures leading to the TPP emission factor lowering at the same time lead to the Grid emission factor lowering. In Ukraine, where the proposed Project takes place, it is impossible to apply, because the Grid emission factor is being calculated taking into account that about the half of the electricity production is being covered by the NPPs and HPPs. In that case the Grid emission factor is lower then the emission factor of the electricity produced by the coal-based TPP. But the TPPs cannot be excluded from the energy sector of Ukraine, because they provide electricity in the manoeuvre load.
For the Project the own Approach will be provided. For the Project the own Approach will be provided. Project will use a baseline and monitoring plan in accordance with "Combined tool to identify the baseline scenario and demonstrate additionality"
(Version 02.2)[*].
In the proposed project CO_2 emissions to atmosphere will be reduced through the efficiency increase of power generation at the Kurakhovskaya TPP after the optimisation of the regimes, servicing, fuel preparations, reconstruction of the boiler, the turbine equipment, the control and regulation system, the electro-generation and the cooling system.
The energy production depends on the demand of the market. The station can increase the energy production at any time. It means that all the additional energy produced during the Project period will substitute the energy, which would have been produced by the TPP, but with the less efficiency and higher GHG emission.

The possible alternative baseline scenarios are the following:

(a) The proposed project activity not undertaken as a JI project;
(b) The reconstruction of the boiler equipment without the rehabilitation of the turbine and power generator;
(c) The reconstruction of the steam turbine without the rehabilitation of the generator and the boiler;
(d) The rehabilitation of the power generator without the rehabilitation of the boiler and the turbine equipment;
(e) Servicing of the equipment, optimisation of the working regimes, and optimisation of the fuel parameters without the rehabilitation.
(f) Investments in new generation capacity;
(g) Continuation of the existing situation.

The baseline options considered do not include those options that:
- do not comply with legal and regulatory requirements; or
- depend on key resources such as fuels, materials or technology that are not available at the project site.

[*] http://cdm.unfccc.int/

The most economically attractive alternative among the alternatives mentioned above has been selected as the baseline scenario, since such alternative is not expected to face any prohibitive barriers that could have prevented it from being taken up as the project activity. Alternative (g) is the baseline scenario.

Outstanding questions connected with baseline and additionality are given in Table 5 below (See CAR3, CAR4, CAR5, CAR6, CAR7, CL5, CL6, CL7, CL8, CL22).

3.3 Monitoring plan

The Project uses the baseline and monitoring approach developed according to the Guidance on *Criteria for Baseline Setting and Monitoring* and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria. Refer to section 3.2 above.

Outstanding questions connected with monitoring plan are given in Table 5 below (See CAR10, CL10, CL11, CL12, CL13, CL14, CL15).

3.4 Calculation of GHG Emissions

The Project emission is being calculated as follows:

$PEy = SFRy * \sum(SFiy * OXIDi * EFi) * AELS_y$ **(1),**

where:
PEy – Project emission in year y (tons CO_2);
SFRy – specific fuel rate of the station in year y (GJ/MW)
SFiy – share of fuel i (coal, natural gas or a heavy fuel oil), consumed in year y;
OXIDi - oxidation factor of the fuel i;
EFi - emission factor of the fuel i consumed (tons CO_2/GJ);
$AELS_y$ - the amount of the electricity supplied to the grid in year y (MW)

The Baseline emission is being calculated for the situation, when the specific fuel rate of the TPP remains the same as if there were no reconstruction or rehabilitation of the equipment of the TPP. The Baseline emission is being calculated as follows:

$BEy = SFR_b * \Sigma (SFiy * OXIDi * EFi) * AELS_y$ **(2)**

where:
BEy – Baseline emission in year y (tons CO_2);
SFR_b – specific fuel rate of the station in the Baseline Scenario (GJ/MW)
SFiy – share of fuel i (coal, natural gas or a heavy fuel oil), consumed in year y;
OXIDi - oxidation factor of the fuel i in year y;
EFi - emission factor of the fuel i consumed in year y (tons CO_2/GJ);
$AELS_y$ - the amount of the electricity supplied to the grid in year y (MW)

Leakage is not expected, as due to the Project implementation the fuel consumption is lowered, so the Leakages due to the fugitive CH_4 emission are also lowered. Moreover, this value is vanishingly small and we use the conservative assumption, that the leakage is left the same as in the Baseline Scenario.

The emission reductions achieved during the project period are calculated as a difference between annual baseline emission and annual project emission. It is shown by the formula:

ERy = BEy – PEy, **(3)**

Where:
ERy – emission reductions achieved by the project activity in year y;
BEy – baseline CO2 emission in year y;
PEy – project CO2 emission in year y.

The final calculations are observed as accurate. The results are summarised in Section E.

Total expected emission reductions of the Project:

For the period 2006-2007 – 304713 t CO2 eq., average annual – 152357 t CO2 eq.

For the period 2008-2012 – 2011280 t CO2 eq., average annual – 402256 t CO2 eq.

For the period 2013-2022 – 9658778 t CO2 eq., average annual – 965878 t CO2 eq.

Outstanding questions connected with GHG calculations are given in Table 5 below (See CAR11, CL18, CL19, CL20).

3.5 Environmental impacts

For the purposes of the safe and reliable operation and monitoring of the installed equipment the quality control and quality assurance measures are implemented on the TPP in accordance with the current legislation and requirements. According to these requirements of the quality control system regular servicing and test mode of the instrumentation is provided. All the measurement equipment is being regularly calibrated. The information of the calibration is being stored and to be checked by the independent entity annually. The check for the data accuracy and calculation of the emission reductions shall be made and collected monthly.

According to the current Ukrainian laws and requirements the measurement of the pollution of dust, soot, NOx, CO, etc. should be monitored and documented. These parameters are reflected in the standard form 2TP-Air (the latest edition was approved by the National Statistics Committee of Ukraine Order #223 dated 30.06.2009). The

TPP also receives the Pollution Permission from the Ministry of the Environmental Protection of Ukraine.

The rehabilitation of each Unit of the TPP consists the description of the Environmental impacts. For today only the Unit #5 has been developed.
The environmental impacts of the Project are described in the Explanatory Note “Draft Environmental Impact Assessment of the Project of the Unit#5 of the Kurakhovskaya TPP”, which is the part of the Technical and Economical Substantiation of the Project. The «Donbas-Azovye XXI Vek» Company prepared the Note in year 2009.
No transboundary or an adverse environmental impacts are expected.

No negative environmental impacts of the project are expected and there are no special procedures required by Ukraine for this Project.

Outstanding questions connected with baseline and additionality are given in Table 5 below (See CAR12, CL21, CL23, CL24).

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Determination of JI projects, the AIE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

Bureau Veritas Certification published the project documents on the website (http://www.bureauveritas.com.ua) on 30/09/2009 and invited comments within 30/10/2009 by Parties, stakeholders and non-governmental organizations.

There are no comments from stakeholders.

5 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd. Project. 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.

The review of the project design documentation, the subsequent follow-up interviews, and the resolution of the Corrective Action Requests have provided Bureau Veritas Certification with the sufficient evidences to determine the fulfilment of the above stated criteria and to demonstrate that the project is additional.

Project participants used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides analysis of investment and other barriers to determine that the project activity itself is not the 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 and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party (Ukraine). If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 2.2.1. dated 12/01/2010 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria, meeting the expectations of interested parties.

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 “Skhidenergo” ltd. that related directly to the GHG components of the project.

1 PPD Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd., Revision 1, 20/08/2009.
2 PPD Reconstruction of the units at the Structure Unit “Kurakhovskaya TPP” of the “Skhidenergo” ltd., Revision 2.2.1, 12/02/2010.
3 Guidelines for Users of the Joint Implementation Project Design Document Form/Version 03, JISC.
4 Joint Implementation Project Design Document Form - Version 01
5 Glossary of JI terms/Version 01, JISC.
6 Guidance on criteria for baseline setting and monitoring. Version 01. JISC.
7 “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 02.2)
8 A Letter of Endorsement of National Environmental Investment Agency

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

/1/. Acceptance certificate. Conveyor automatic scales SVEDA VK -230-1400, #198.
/2/. Acceptance certificate. Conveyor automatic scales SVEDA VK -230-1400, #92.

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/3/. Acceptance certificate. Electricity meter A1R-4-OL-C8-T ser. #01006194. Verification date: 17.07.2003.
/4/. Acceptance certificate. Electricity meter EuroAlfa ser. #01147029. Verification date: 20.11.2006.
/5/. Acceptance certificate. Electricity meter EuroAlfa ser. #01147032. Verification date: 20.11.2006.
/6/. Acceptance certificate. Electricity meter EuroAlfa ser. #01147035. Verification date: 20.11.2006.
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/20/. Acceptance certificate. Electricity meter EuroAlfa ser. #01150411. Verification date: 31.01.2007.
/21/. Acceptance certificate. Electricity meter EuroAlfa ser. #01154793. Verification date: 10.05.2007.
/22/. Acceptance certificate. Electricity meter EuroAlfa ser. #01154794. Verification date: 10.05.2007.
/23/. Acceptance certificate. Electricity meter of type A1R-4-OL-C4-T ser. #01006115. Verification date: 14.10.2003.
/24/. Acceptance certificate. Electricity meter of type A1R-4-OL-C8-T ser. #01006188. Verification date: 12.05.2009.
/25/. Acceptance certificate. Electricity meter of type A1R-4-OL-C8-T ser. #01006191. Verification date: 12.05.2009.
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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/ Victor Ruppa - Leader engineer
/2/ Victor Chal'ter – Chief of HR department

DETERMINATION REPORT

/3/ Sergey Budnik – Chief of fueling department
/4/ Andrey Rasshchupkin – Chief of repair department
/5/ Vladimir Tretyak – Chief of repair-boiler department
/6/ Nikolay Shevtsov - Chief of repair-turbine department
/7/ Natalia Pilyugina – Chief of prodact-masurement chemical laboratory
/8/ Igor Petrov – Cief of ecology department
/9/ Eduard Hirgiy – Chief of industrial safety department
/10/ Evgeniy Mazurov - Chief of PTO
/11/ Yuriy Drachenko – Deputy chief of repair heat automatics and measuring.
/12/ Pavel Titarenko – Chief of fuel and transport department
/13/ Maksim Chaban – Chief of electric department
/14/ Nadiya Tkachuk – Acting of Kurakhovo city Head

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APPENDIX A: DETERMINATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

Report No: UKRAINE/0039/2008

DETERMINATION REPORT - "RECONSTRUCTION OF THE UNITS AT THE STRUCTURE UNIT "KURAKHOVSKAYA TPP" OF THE "SKHIDENERGO" LTD."

JI PROJECT DETERMINATION PROTOCOL

Table 1 Mandatory Requirements for Joint Implementation (JI) Projects

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
1. The project shall have the approval of the Parties involved	Kyoto Protocol Article 6.1 (a)	CAR1: After finishing of project determination report, the PDD and Determination Report will be presented to National Environmental Investments Agency of Ukraine for receiving of the Letter of Approval. The Letter of Approval from the country - investor will be provided after approval of project by	Table 2, Section A.5

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		Ukraine. National Environmental Investment Agency of Ukraine 35, Urytskogo str. 03035 Kiev Ukraine Email: info.neia@gmail.com **Mr. Igor Lupaltsov** **Head** National Environmental Investment Agency of Ukraine Phone: +380 44 594 9111 Fax: +380 44 594 9115 Email: lupaltsov@ukr.net	
2. Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur	Kyoto Protocol Article 6.1 (b)	OK	Table 2, Section B
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7	Kyoto Protocol Article 6.1 (c)	CAR2: There is no information about sponsor Party in PDD. Pending till 1st verification.	
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting	Kyoto Protocol	OK	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
commitments under Article 3	Article 6.1 (d)		
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects	Marrakech Accords, JI Modalities, §20	National Environmental Investment Agency of Ukraine	
6. The host Party shall be a Party to the Kyoto Protocol	Marrakech Accords, JI Modalities, §21(a)/24	The Ukraine is a Party (Annex I Party) to the Kyoto Protocol and has ratified the Kyoto Protocol at April 12th, 2004.	
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts	Marrakech Accords, JI Modalities, §21(b)/24	This issue cannot be answered finally as it is out of the influence of the project participants. In the Initial Report submitted by Ukraine on 29. Dec. 2006 the AAUs are quantified with: 925 362 174.39 (x 5) tCO2-e. (compare http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/items/3765.php)	
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4	Marrakech Accords, JI Modalities, §21(d)/24	The designed system of the national registry has been outlined in the Initial Report (see link above). This issue is out of the influence of the	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		project owner. The National Registry is not a direct requirement for project registration.	
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination	Marrakech Accords, JI Modalities, §31	OK	
10. The project design document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments	Marrakech Accords, JI Modalities, §32	30 Sept 09 - 30 Oct 09	
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out	Marrakech Accords, JI Modalities, §33(d)	Environmental Impact Assessment legislative requirements are defined by Clause 36 of the Law of Ukraine "On Environmental Expertise". Requirements for the EIA structure is contained in the state construction norms of Ukraine DBN A.2.2-1-2003. Requirements for the documentation of the state EE are set in the “Instruction on realization of the state environmental expertise”. Requirements for the	Table 2, Section F

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		conclusions of the EE are defined by the Clause 43 of the Law of Ukraine "On Environmental Expertise ". Design documentation including the EIA is submitted for execution of environmental expertise to the Ministry of Environment and Natural Resources Protection of Ukraine (MENRPU) or its regional bodies. The State EE is undertaken by the MENRPU who then issues an official response.	
12. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B
13. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B
14. The baseline methodology shall exclude to earn CERs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
15. The project shall have an appropriate monitoring plan	Marrakech Accords, JI Modalities, §33(c)	OK	Table 2, Section D
16. A project participant may be: (a) A Party involved in the JI project; or (b) A legal entity authorized by a Party involved to participate in the JI project.	JISC "Modalities of communication of Project Participants with the JISC" Version 01, Clause A.3	The Ukrainian project participant will be authorised by the Host Party through the issuance of the approval for the project. Conclusion is pending until written approval authorizing the project participants by Parties involved will be issued. See CAR 1 and CAR2.	Table 2, Section A

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of the project					
A.1 Title of the project					
A.1.1. Is the title of the project activity presented?	1,2,3,4	DR	Reconstruction of the units at the Structure Unit "Kurakhovskaya TPP" of the "Skhidenergo" ltd.	OK	OK
A.1.2. Is the current version number of the document presented?	1,2,3,4	DR	version 2.2.1	OK	OK
A.1.3. Is the date when the document was completed presented?	1,2,3,4	DR	12th February 2010	OK	OK
A.2. Description of the project					
A.2.1. Is the purpose of the project activity included?	1,2,3,4	DR	The main objective of the Project is to make the existing power equipment of the TPP more efficient and reliable. The increased efficiency will provide a higher output and lower fuel consumption.	OK	OK
A.2.2. Is it explained how the proposed project activity reduces greenhouse gas emissions?	1,2,3,4	DR	The increased capacity of the TPP is due to the better efficiency of the existing equipment. It will reduce the fuel consumption per unit of the energy produced by the station. Thus the GHG emission per the energy unit produced will be lowered.	OK	OK
A.3. Project participants					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.3.1. Are project participants and Party(ies) involved in the project listed?	1,2,3 ,4	DR	Ukraine (Host Party) Skhidenergo Ltd. Ukraine ELTA JSC	OK	OK
A.3.2. Are project participants authorized by a Party involved?	1,2,3 ,4	DR	See section A.5.1 (CAR2) below	-	-
A.3.3. The data of the project participants are presented in tabular format?	1,2,3 ,4	DR	See section A.3 of the PDD	OK	OK
A.3.4. Is contact information provided in annex 1 of the PDD?	1,2,3 ,4	DR	See Annex 1 of the PDD	OK	OK
A.3.5. Is it indicated, if it is the case, if the Party involved is a host Party?	1,2,3 ,4	DR	Ukraine (Host Party)	OK	OK
A.4. Technical description of the project					
A.4.1. Location of the project activity					
A.4.1.1. Host Party(ies)	1,2,3 ,4	DR	Ukraine	OK	OK
A.4.1.2. Region/State/Province etc.	1,2,3 ,4	DR	Donetsk region, Eastern Part of Ukraine	OK	OK
A.4.1.3. City/Town/Community etc.	1,2,3 ,4	DR	Kurkhovo town, Donetsk region, Ukraine	OK	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)	1,2,3 ,4	DR	See section A.4.1.4 of the PDD	OK	OK
A.4.2. Technology(ies) to be employed, or measures, operations or actions to be implemented by the					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
project					
A.4.2.1. Does the project design engineering reflect current good practices?	1,2,3,4	DR	See section A.4.2 of the PDD. Please, clarify in PDD if the project design engineering reflect current good practices	CL1	OK
A.4.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1,2,3,4	DR	See section A.4.2 of the PDD. Please, clarify in PDD if the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country.	CL2	OK
A.4.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1,2,3,4	DR	Please, clarify in PDD if the project technology is likely to be substituted by other or more efficient technologies within the project period.	CL3	OK
A.4.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1,2,3,4	DR	No special training for the personnel is needed.	OK	OK
A.4.2.5. Does the project make provisions for meeting training and maintenance needs?	1,2,3,4	DR	No special training for the personnel is needed.	OK	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 policies and circumstances					
A.4.3.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should	1,2,3,4,5,	DR	See section A.4.3 of the PDD. The proposed Project provides emission	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
not exceed one page)	6		reductions by lowering of the amount of fuel used per energy unit produced (MW, Gcal, etc.).		
A.4.3.2. Is it provided the estimation of emission reductions over the crediting period?	1,2,3,4	DR	See section A.4.3.1 of the PDD. Please clarify why the crediting period of this Project is 2009-2020 but is not 2009-2012.	CL4	OK
A.4.3.3. Is it provided the estimated annual reduction for the chosen credit period in tCO_2e?	1,2,3,4	DR	See item A.4.3.2 above.	-	-
A.4.3.4. Are the data from questions A.4.3.2 to A.4.3.4 above presented in tabular format?	1,2,3,4	DR	See section A.4.3.1 of the PDD.	OK	OK
A.5. Project approval by the Parties involved					
A.5.1. Are written project approvals by the Parties involved attached?	1,2,3,4	DR	See table 1 item 1 above.	-	-
B. Baseline					
B.1. Description and justification of the baseline chosen					
B.1.1. Is the chosen baseline described?	1,2,3,4,6,7	DR	See section B.1 of the PDD. Baseline chosen is not described.	CAR3	OK
B.1.2. Is it justified the choice of the applicable baseline for the project category?	1,2,3,4,6,7	DR	See section B.1 of PDD. Please clarify why the partly implementation project activity (with and without registration as JI project) is not provided in PDD as one of the alternative to the project activity.	CL5	OK
B.1.3. Is it described how the methodology is applied in	1,2,3	DR	See section B.1 of the PDD.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
the context of the project?	,4,6, 7				
B.1.4. Are the basic assumptions of the baseline methodology in the context of the project activity presented (See Annex 2)?	1,2,3 ,4,5, 6	DR	See annex 2 of the PDD.	OK	OK
B.1.5. Is all literature and sources clearly referenced?	1,2,3 ,4	DR	Please provide in PDD references on all literature and sources that were used in methodology development (including sources of the formulas).	CAR4	OK
B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the JI project					
B.2.1. Is the proposed project activity additional?	1,2,3 ,4,6, 7	DR	"The proposed project is being registered as a JI project." (*Sub-step 1a)* can't be defined as alternative to the project activity. Developer must used "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 02.2) for the indentification and baseline scenario and demonstration of additonality. The bad technical condition of the equipment can't be provided as barrier, because it means the equipment must be	CAR5 CAR6 CAR7	OK OK OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			rehabilitated with or without JI project registration. Please provide calculations of IRR and NPV.	CL6	OK
B.2.2. Is the baseline scenario described?	1,2,3,4	DR	See section B.1 of the PDD. The Baseline Scenario is the amount of the energy that would have otherwise been generated by the Kurakhovskaya TPP at the absence of the Project.	OK	OK
B.2.3. Is the project scenario described?	1,2,3,4	DR	Please provide in section B.2 of the PDD description of the project scenario.	CL7	OK
B.2.4. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?	1,2,3,4,5	DR	See section B.2 of the PDD.	OK	OK
B.2.5. Is it demonstrated that the project activity itself is not a likely baseline scenario?	1,2,3,4,6	DR	See section B.2 of the PDD.	OK	OK
B.2.6. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	1,2,3,4	DR	See section B.2 of the PDD. Please provide relevant state norms on power tariffs regulation.	CL8	OK
B.3. Description of how the definition of the project boundary is applied to the project activity					
B.3.1. Are the project's spatial (geographical) boundaries clearly defined?	1,2,3,4	DR	See section B.3 of the PDD	OK	OK
B.4. Further baseline information, including the date of					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline					
B.4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?	1,2,3,4	DR	15/07/2009	OK	OK
B.4.2. Is the contact information provided?	1,2,3,4	DR	See section B.4 of the PDD. Name of the person(s)/entities setting the baseline: JSC IEA "Elta".	OK	OK
B.4.3. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2,3,4	DR	Yes, the person/entity also a project participant is listed in Annex 1 of PDD. See annex 1 of the PDD	OK	OK
C. Duration of the small-scale project and crediting period					
C.1. Starting date of the project					
C.1.1. Is the project's starting date clearly defined?	1,2,3,4,5	DR	Please clarify why the date 1/08/2009 was accepted as the project's starting date clearly defined?	CL9	OK
C.2. Expected operational lifetime of the project					
C.2.1. Is the project's operational lifetime clearly defined in years and months?	1,2,3,4	DR	Please, provide the project's operational lifetime in years and months	CAR8	OK
C.3. Length of the crediting period					
C.3.1. Is the length of the crediting period specified in years and months?	1,2,3,4	DR	Please, provide the length of the crediting period in years and months	CAR9	OK
D. Monitoring Plan					
D.1. Description of monitoring plan chosen					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.1.1. Is the monitoring plan defined?	1,2,3,4,6	DR	See section D.1 of the PDD.	OK	OK
D.1.2. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario.	1,2,3,4,7	DR	See section D.1.1 of the PDD. Please, clarify in PDD why thermal energy produced by TPP is not used in calculations.	CL10	OK
D.1.3. Data to be collected in order to monitor emissions from the project, and how these data will be archived.	1,2,3,4,7	DR	Refer to section D.1.1.1 of PDD. Please clarify why the changes of caloric value of the fuel were not taken into account.	CL11	OK
D.1.4. Description of the formulae used to estimate project emissions (for each gas, source etc,; emissions in units of CO2 equivalent).	1,2,3,4	DR	Refer to section D.1.1.2 of PDD. Amount of electricity that was consumed for own needs is not used in calculations. It's incorrect.	CAR10	OK
D.1.5. Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected and archived.	1,2,3,4	DR	Refer to section D.1.1.3 of PDD. Please justify usage of fixed emission coefficient of the energy produced in a baseline scenario. Please provide statistic data on average emission coefficient of the energy produced in 5 years.	CL12	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
D.1.6. Description of the formulae used to estimate baseline emissions (for each gas, source etc, emissions in units of CO2 equivalent).	1,2,3,4	DR	Refer to section D.1.1.4 of PDD. Please specify what is AELPb and provide relevant calculations?	CL13	OK
D.1.7. Option 2 – Direct monitoring of emissions reductions from the project (values should be consistent with those in section E)	1,2,3,4	DR	N/A	OK	OK
D.1.8. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived.	1,2,3,4	DR	N/A	OK	OK
D.1.9. Description of the formulae used to calculate emission reductions from the project (for each gas, source etc,; emissions/emission reductions in units of CO2 equivalent).	1,2,3,4	DR	N/A	OK	OK
D.1.10. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project.	1,2,3,4,6	DR	See section D.1.3.1 of the PDD.	OK	OK
D.1.11.Description of the formulae used to estimate leakage (for each gas, source etc,; emissions in units of CO2 equivalent).	1,2,3,4	DR	See section D.1.3.2 of the PDD.	OK	OK
D.1.12. Description of the formulae used to estimate emission reductions for the project (for each gas, source etc,; emissions in units of CO2 equivalent).	1,2,3,4	DR	Refer to section D.1.4 of PDD	OK	OK
D.1.13.Is information on the collection and archiving of information on the environmental impacts of the project provided?	1,2,3,4	DR, I	See section D.1.5 of PDD. Please, if applicable provide information on the collection and archiving of information on the environmental impacts of the project.	CL14	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			If no, clarify it.		
D.1.14. Is reference to the relevant host Party regulation(s) provided?	1,2,3,4	DR, I	Please, provide reference to the relevant host Party regulation(s). If not applicable, state so.	CL15	OK
D.1.15. If not applicable, is it stated so?	1,2,3,4	DR, I	Reference to section D.1.14 (CL15) above	-	-
D.2. Qualitative control (QC) and quality assurance (QA) procedures undertaken for data monitored					
D.2.1. Are there quality control and quality assurance procedures to be used in the monitoring of the measured data established?	1,2,3,4	DR	See section D.2 of the PDD.	OK	OK
D.3. Please describe of the operational and management structure that the project operator will apply in implementing the monitoring plan					
D.3.1. Is it described briefly the operational and management structure that the project participants(s) will implement in order to monitor emission reduction and any leakage effects generated by the project activity	1,2,3,4	DR	See section D.3 of the PDD.	OK	OK
D.4. Name of person(s)/entity(ies) establishing the monitoring plan					
D.4.1. Is the contact information provided?	1,2,3,4	DR	Mr. Maksym Rogovoy ELTA JSC 14/3, Stadionny proezd str.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Kharkov, Ukraine 61091 Telephone: + 38 050 5950311 Fax: + 38 057 392 0045 M_rogovoy@elta.kharkov.ua		
D.4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	1,2,3,4	DR	See Annex 1 of the PDD.	OK	OK
E. Estimation of greenhouse gases emission reductions					
E.1. Estimated project emissions					
E.1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due the project?	1,2,3,4,7	DR	See sections E.1 and B.2 of the PDD.	OK	OK
E.1.2. Is there a description of calculation of GHG project emissions in accordance with the formula specified in for the applicable project category?	1,2,3,4,7	DR	Description of calculation of GHG project emissions in accordance with the formula specified in for the applicable project category is not provided.	CAR11	OK
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1,2,3,4	DR	Please clarify if conservative assumptions are used to calculate project GHG emissions	OK	OK
E.2. Estimated leakage					
E.2.1. Are described the formulae used to estimate leakage due to the project activity where required?	1,2,3,4,7	DR	Please, describe in this section the formulae used to estimate leakage due to the project activity where required	CL16	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
E.2.2. Is there a description of calculation of leakage in accordance with the formula specified in for the applicable project category?	1,2,3,4	DR	See section D.1.3.2 of the PDD.	OK	OK
E.2.3. Have conservative assumptions been used to calculate leakage?	1,2,3,4,7	DR	Please clarify if conservative assumptions were used to calculate leakage	CL17	OK
E.3. The sum of E.1 and E.2.					
E.3.1. Does the sum of E.1 and E.2 represent the project activity emissions?	1,2,3,4	DR	See section E.3 of the PDD.	OK	OK
E.4. Estimated baseline emissions					
E.4.1. Are described the formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category?	1,2,3,4	DR	Please provide description of formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category.	CL18	OK
E.4.2. Is there a description of calculation of GHG baseline emissions in accordance with the formula specified in for the applicable project category?	1,2,3,4	DR	Please provide description of calculation of GHG baseline emissions in accordance with the formula specified in for the applicable project category is not provided.	CL19	OK
E.4.3. Have conservative assumptions been used to calculate baseline GHG emissions?	1,2,3,4	DR	Please clarify in section E.4 of PDD if conservative assumptions are used to calculate baseline GHG emissions	CL20	OK
E.5. Difference between E.4. and E.3. representing the emission reductions of the project					
E.5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the	1,2,3,4	DR	Refer to E.5 of the PDD.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
project during a given period?					
E.6. Table providing values obtained when applying formulae above					
E.6.1. Is there a table providing values of total CO_2 abated?	1,2,3,4	DR	Table presented in section E.6 of the PDD.	OK	OK
F. Environmental Impacts					
F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party					
F.1.1. Has an analysis of the environmental impacts of the project been sufficiently described?	1,2,3,4	DR, I	The rehabilitation of each Unit of the TPP consists the description of the Environmental impacts. For today only the Unit #5 has been developed. The environmental impacts of the Project are described in the Explanatory Note "Draft Environmental Impact Assessment of the Project of the Unit#5 of the Kurakhovskaya TPP", which is the part of the Technical and Economical Substantiation of the Project. The «Donbas-Azovye XXI Vek» Company prepared the Note in year 2009.	OK	OK
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is and EIA approved?	1,2,3,4	DR, I	The environmental impacts of the project are not significant and there are no procedures required by Ukraine for this Project.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
F.1.3. Are the requirements of the National Focal Point being met?	1,2,3,4	DR, I	The National Focal Point issued Letter of Endorsement.	OK	OK
F.1.4. Will the project create any adverse environmental effects?	1,2,3,4	DR, I	Please, clarify if project create any adverse environmental effects	CL21	OK
F.1.5. Are transboundary environmental considered in the analysis?	1,2,3,4	DR, I	Transboundary effects are not considered (no effect can be deduced only). Please, specify if the project has no transboundary impact. If no, clarify why it is not expected.	CAR12	OK
F.1.6. Have identified environmental impacts been addressed in the project design?	1,2,3,4	DR, I	See item F.1.4 (CL21) above.	-	-
G. Stakeholders' comments					
G.1. Information on stakeholders' comments on the project, as appropriate					
G.1.1. Is there a list of stakeholders from whom comments on the project have been received?	1,2,3,4,8	DR	Section G.1 of PDD	OK	OK
G.1.2. The nature of comments is provided?	1,2,3,4	DR	Section G.1 of PDD	OK	OK
G.1.3. Has due account been taken of any stakeholder comments received?	1,2,3,4	DR	Section G.1 of PDD	OK	OK

Table 3 Baseline and Monitoring Methodologies: Own approach

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Baseline Methodology					
1. 1. General					
1.1.1. Does the baseline cover emissions from all gases, sectors and source categories listed in Annex A, and anthropogenic removals by sinks, within the project boundary?	1,2,6	DR I	Section B.3 of the PDD establishes project boundaries. Only CO2 and CH4 emissions are taken into account by the project.	OK	OK
1.1.2. Is baseline established on a project-specific basis and/or using a multi-project emission factor?	1,2,6	DR I	A multi-project emission factor is used for baseline establishing.	OK	OK
1.1.3 Is baseline established in a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors?	1,2,6	DR I	See items B.1.1 (CAR3), B.1.2 (CL5), B.1.5 (CAR4) above.	-	-
1.1.4 Is baseline established 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?	1,2,6	DR	See items B.2.6 (CL8) above.	-	-
1.1.5 Is baseline established in such a way that ERUs cannot be earned for decreases in activity levels outside the project activity or due to *force majeure?*	1,2,6	DR I	Baseline does not envisage earning ERUs for activity level decrease outside the project or due to *force majeure.*	OK	OK
1.1.6 Is baseline established taking account of uncertainties and using conservative assumptions?	1,2,6	DR I	Please, clarify how uncertainties were taken into account.	CL22	OK
1.2. Additionality					
1.2.1. Was the additionality of the project activity demonstrated and assessed?	1,2,6	DR	See section B.2.1 above	-	-

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2. Monitoring Methodology					
2.1. Monitoring plan					
2.1.1. Is a monitoring plan included?	1,2,6	DR I	Yes, monitoring plan is included.	OK	OK
2.1.2. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimating or measuring anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases occurring within the project boundary during the crediting period?	1,2,6	DR I	Refer to sections D.1.1.1, D.1.1.3 and D.1.3.1 of PDD. See items D.1.2 (CL10), D.1.3 (CL11) and D.1.5 (CL12) above.	-	-
2.1.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining the baseline of anthropogenic emissions by sources and/or anthropogenic removals by sinks of greenhouse gases within the project boundary during the crediting period?	1,2,6	DR I	Refer to section D.1.1.3 of PDD. See item D.1.5 (CL12) above.	-	-
2.1.4. Does the monitoring plan provide for the identification of all potential sources of, and the collection and archiving of data on increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of greenhouse gases outside the project boundary that are significant and reasonably attributable to the project during the crediting period?	1,2,6	DR	See section D.1.3.1 of the PDD.	OK	OK
2.1.5. Does the project boundary encompass all anthropogenic emissions by sources and/or removals by sinks of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the JI project?	1,2,6	DR	Significant anthropogenic emissions by sources and/or removals by sinks of greenhouse gases under the control of the project participants are envisaged by the project. Validated onsite.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1.6. Does the monitoring plan provide for the collection and archiving of information on environmental impacts, in accordance with procedures as required by the host Party, where applicable?	1,2,6	DR	See items D.1.13 (CL14) above.	-	-
2.1.7. Does the monitoring plan provide for quality assurance and control procedures for the monitoring process?	1,2,6	DR	See section D.2 of the PDD	OK	OK
2.1.8. Does the monitoring plan provide for procedures for the periodic calculation of the reductions of anthropogenic emissions by sources and/or enhancements of anthropogenic removals by sinks by the proposed JI project, and for leakage effects, if any?	1,2,6	DR I	The monitoring plan provides formulae for the periodic calculation of the reductions of anthropogenic emissions and for leakage effects (see sections D.1.1.2 and D.1.3.1 of PDD).	OK	OK
2.1.9. Does the monitoring plan provide for documentation of all steps involved in the calculations?	1,2,6	DR I	See items D.1.6 (CL13) above.	-	-
2.2. Quality Control (QC) and Quality Assurance (QA) Procedures					
2.2.1. Did all measurements use calibrated measurement equipment that is regularly checked for its functioning?	1,2,6	DR I	Control of the measuring equipment is implemented and followed, that was validated onsite.	OK	OK
2.2.2 Is frequency of monitoring the parameters defined?	1,2,6	DR I	Frequency of monitoring the parameters is defined.	OK	OK

Table 4 Legal requirements

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Legal requirements					
1.1. Is the project activity environmentally licensed by the competent authority?	1,2	DR, I	Proposed project activity is not capital construction. Please clarify in PDD is the project activity environmentally licensed by the competent authority	CL23	OK
1.2. Are there conditions of the environmental permit? In case of yes, are they already being met?	1,2	DR, I	Please clarify in PDD if conditions of the environmental permit?	CL24	OK
1.3. Is the project in line with relevant legislation and plans in the host country?	1,2	DR, I	See items 1.1 (CL23) above	-	-

Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
Corrective Action Request (CAR) 1 There is no evidence of written project approvals by the Parties involved.	Table 1, question 1	The Letter of Approval from the country - investor will be provided after approval of project by Ukraine. National Environmental Investment Agency of Ukraine	After finishing of project determination report, the PDD and Determination Report will be presented to National Environmental Investments

Please, provide # and date of LoE.		35, Urytskogo str. 03035 Kiev Ukraine Email: info.neia@gmail.com **Mr. Igor Lupaltsov** **Head** National Environmental Investment Agency of Ukraine Phone: +380 44 594 9111 Fax: +380 44 594 9115 Email: lupaltsov@ukr.net Page 12 and Annex 4, version 2.2.1.	Agency of Ukraine for receiving of the Letter of Approval. Corrective Action Request is pending untill letter of approval will be obtained from Host Party.
Corrective Action Request (CAR) 2 There is no information about sponsor Party in PDD.	Table 1, question 3	Project costs will be partially covered by "Skhidenergo" ltd. company and rest will be covered by loan capital; currently negotiations with few banks are in the process, in particular with European Bank of Reconstruction and Development. Also the option of partial project financing by ERUs buyer is under consideration. Page 11 of PDD, version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is pending till 1st verification.
Corrective Action Request (CAR) 3 Baseline chosen is not described.	Table 2, question B.1.1	See section B.1 of the PDD version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 4 Please provide in PDD references on	Table 2, question	All necessary references are provided. See PDD version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is

all literature and sources that were used in methodology development (including sources of the formulas).	B.1.5		closed.
Corrective Action Request (CAR) 5 "The proposed project is being registered as a JI project." (*Sub-step 1a)* can't be defined as alternative to the project activity.	Table 2, question B.2.1	This alternative was removed from list of Alternatives.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 6 Developer must used "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 02.2) for the indentification and baseline scenario and demonstration of additonality.	Table 2, question B.2.1.	PDD was corrected. See section B.1.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 7 The bad technical condition of the equipment can't be provided as barrier, because it means the equipment must be rehabilitated with or without JI project registration.	Table 2, question B.2.1.	This barrier was excluded from list of barriers. See section B.1 of the PDD version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 8 Please, provide the project's operational lifetime in years and months	Table 2, question C.2.1.	20 years (240 months)	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 9 Please, provide the length of the	Table 2, question C.3.1	17 years (204 months)	PDD version 2.2.1 was checked. Corrective Action Request is closed.

crediting period in years and months			
Corrective Action Request (CAR) 10 Amount of electricity that was consumed for own needs is not used in calculations. It's incorrect.	Table 2, question D.1.4	In corrected calculations for the Calculations of the Baseline emission was used the Specific Fuel Rate (SFR). The SFR coefficient shows the fuel consumption per the electricity supplied to the grid. It means, that the own consumption of the TPP is taken into account.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 11 Description of calculation of GHG project emissions in accordance with the formula specified in for the applicable project category is not provided.	Table 2, question E.1.2	All necessary formulas and references are provided. See sections D.1 and E of the PDD version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Corrective Action Request (CAR) 12 Transboundary effects are not considered (no effect can be deduced only). Please, specify if the project has no transboundary impact. If no, clarify why it is not expected.	Table 2, question F.1.5	No transboundary or adverse environmental impacts are expected. See section F.1 of the PDD version 2.2.1.	PDD version 2.2.1 was checked. Corrective Action Request is closed.
Clarification Request (CL) 1 Please, clarify in PDD if the project design engineering reflect current good practices	Table 2, question A.4.2.1	For the reconstruction and rehabilitation at Kurakhovskaya TPP the technology that is common in Europe will be used. The Project is one of the first projects of this kind in Ukraine. The TPP has one of the best fuel	PDD version 2.2.1 has been checked. Clarification Request is closed.

		consumption coefficients among the coal-fired TPPs in Ukraine now and the rehabilitation will lower the GHG emission coefficient of the TPP.	
Clarification Request (CL) 2 Please, clarify in PDD if the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country.	Table 2, question A.4.2.2.	For the reconstruction and rehabilitation at Kurakhovskaya TPP the technology that is common in Europe will be used. The Project is one of the first projects of this kind in Ukraine. The TPP has one of the best fuel consumption coefficients among the coal-fired TPPs in Ukraine now and the rehabilitation will lower the GHG emission coefficient of the TPP.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 3 Please, clarify in PDD if the project technology is likely to be substituted by other or more efficient technologies within the project period.	Table 2, question A.4.2.3	The technology is unlikely to be substituted during the lifetime of the Project.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 4 Please clarify why the crediting period of this Project is 2009-2020 but is not 2009-2012.	Table 2, question A.4.3.1	PDD was corrected. Periods 2006-2007, 2008-2012, 2013-2022 were separated and described. See section A.3.1 of the PDD version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 5 Please clarify why the partly implementation project activity (with and without registration as JI project) is not provided in PDD as one of the	Table 2, question B.1.2	PDD was corrected. Such Alternatives were included to PDD version 2.2.1: *Alternative 2*. The reconstruction of the boiler equipment without the rehabilitation of the turbine and power generator (the technical	PDD version 2.2.1 has been checked. Clarification Request is closed.

alternative to the project activity.		description of the activities within this alternative is shown in the section A.4.2.); *Alternative 3*. The reconstruction of the steam turbine without the rehabilitation of the generator and the boiler (the technical description of the activities within this alternative is shown in the section A.4.2.); *Alternative 4*. The rehabilitation of the power generator without the rehabilitation of the boiler and the turbine equipment (the technical description of the activities within this alternative is shown in the section A.4.2.); *Alternative 5*. Servicing of the equipment, optimisation of the working regimes, and optimisation of the fuel parameters without the rehabilitation.	
Clarification Request (CL) 6 Please provide calculations of IRR and NPV.	Table 2, question B.2.1.	Investment analyse was excluded from PDD. See section B.1 of the PDD, version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 7 Please provide in section B.2 of the PDD description of the project scenario.	Table 2, question B.2.3	Investment analyse was excluded from PDD. See section B.1 of the PDD, version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 8 Please provide relevant state norms on power tariffs regulation.	Table 2, question B.2.6	All necessary norms were provided. See section A.4.3 of the PDD, version 2.2.1.	PDD version 2.2 and relevant referenses have been checked. Clarification Request is closed.

Clarification Request (CL) 9 Please clarify why the date 1/08/2009 was accepted as the project's starting date clearly defined?	Table 2, question C.1.1	Starting date of the project was corrected. Starting date is 18/03/2005 (Contract № 03/2005/244 dated 18.03.2005)	PDD version 2.2 and supportig documents have been checked. Clarification Request is closed.
Clarification Request (CL) 10 Please, clarify in PDD why thermal energy produced by TPP is not used in calculations.	Table 2, question D.1.2	Thermal energy delivery is minor and getting lower (from 2,5% of the energy produced in 2003 to 1% in 2008) only because of the energy efficiency measures and lowering of the loses (the demand for the thermal energy is constant – heating for the Kurakhovo town). We make a conservative assumption that in the project scenario the thermal energy delivery and production will remain around 1% of the fuel consumption and do not take it into account in the calculations. The Specific fuel rate (SFRy) coefficient is also calculated separately for the electricity and the thermal energy.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 11 Please clarify why the changes of caloric value of the fuel were not taken into account.	Table 2, question D.1.3	The calculations of the fuel consumption by the TPP are being made in the tons of the equivalent fuel. One ton of the equivalent fuel is 7 Gcal or 29,33 GJ (see Annex 2). This method takes the NCV of the fuel into account and allows comparison of the parameters for the different years.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 12 Please justify usage of fixed emission coefficient of the energy produced in a baseline scenario. Please provide	Table 2, question D.1.5	In corrected calculations for the Calculations of the Baseline emission was used the Specific Fuel Rate (SFR). For the period of 2003 – 2005 (before the start of the Project)	PDD version 2.2.1 has been checked. Clarification Request is closed.

statistic data on average emission coefficient of the energy produced in 5 years.		the SFR coefficient changed in a very small range and we make a conservative assumption and take the average rate as the Baseline SFRb coefficient (see Annex 2).	
Clarification Request (CL) 13 Please specify what is AELPb and provide relevant calculations?	Table 2, question D.1.6	Calculations were corrected. Parametr AELPb was excluded.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 14 Please, if applicable provide information on the collection and archiving of information on the environmental impacts of the project. If no, clarify it.	Table 2, question D.1.13	According to the current Ukrainian laws and requirements the measurement of the pollution of dust, soot, NOx, CO, etc. should be monitored and documented. These parameters are reflected in the standard form 2TP-Air (the latest edition was approved by the National Statistics Committee of Ukraine Order #223 dated 30.06.2009). The TPP also receives the Pollution Permission from the Ministry of the Environmental Protection of Ukraine.	PDD version 2.2.1 and relevant documents have been checked. Clarification Request is closed.
Clarification Request (CL) 15 Please, provide reference to the relevant host Party regulation(s). If not applicable, state so.	Table 2, question D.1.14	According to the current Ukrainian laws and requirements the measurement of the pollution of dust, soot, NOx, CO, etc. should be monitored and documented. These parameters are reflected in the standard form 2TP-Air (the latest edition was approved by the National Statistics Committee of Ukraine Order #223 dated 30.06.2009). The TPP also receives the Pollution Permission from the Ministry of the Environmental Protection of Ukraine.	PDD version 2.2.1 has been checked. Clarification Request is closed.

Clarification Request (CL) 16 Please, describe in this section the formulae used to estimate leakage due to the project activity where required	Table 2, question E.2.1	All necessary formulas provided in section D.1 of the PDD version 2.2.1. In section E of the PDD version 2.2.1 were provided references on relevant formulas.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 17 Please clarify if conservative assumptions were used to calculate leakage	Table 2, question E.2.3	PDD was corrected. Leakages is not expected. All relevant calculations were excluded.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 18 Please provide description of formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category.	Table 2, question E.4.1	All necessary formulas provided in section D.1 of the PDD version 2.2.1. In section E of the PDD version 2.2.1 were provided references on relevant formulas.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 19 Please provide description of calculation of GHG baseline emissions in accordance with the formula specified in for the applicable project category is not provided.	Table 2, question E.4.2	All necessary calculatings provided in section D.1 of the PDD version 2.2.1 and Appendix 1. In section E of the PDD version 2.2.1 were provided references on relevant formulas.	PDD version 2.2.1 and Appendix 1 have been checked. Clarification Request is closed.
Clarification Request (CL) 20 Please clarify in section E.4 of PDD if conservative assumptions are used to calculate baseline GHG emissions	Table 2, question E.4.3	All conservative provided in section D.1 of the PDD, version 2.2.1. Relevant referenses provided in section E.4 of the PDD, version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 21	Table 2,	Adverse environmental effects are not	PDD version 2.2.1 has been

Please, clarify if project create any adverse environmental effects	question F.1.3.	expected. See section F of the PDD, version 2.2.1.	checked. Clarification Request is closed.
Clarification Request (CL) 22 Please, clarify how uncertainties were taken into account.	Table 3, question 1.1.6	Uncertainties of the mesurements were taken into account in calculations of Specific Fuel Rate (SFR) in accordance with all relevant regulations.	PDD version 2.2.1 and supporting documents have been checked. Clarification Request is closed.
Clarification Request (CL) 23 Please clarify in PDD is the project activity environmentally licensed by the competent authority	Table 4, question 1.1	No negative environmental impacts of the project are expected and there are no special procedures required by Ukraine for this Project. See section F.2 of the PDD, version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.
Clarification Request (CL) 24 Please clarify in PDD if conditions of the environmental permit?	Table 4, question 1.2	No negative environmental impacts of the project are expected and there are no special procedures required by Ukraine for this Project. See section F.2 of the PDD, version 2.2.1.	PDD version 2.2.1 has been checked. Clarification Request is closed.

APPENDIX B: VERIFIERS CV'S

Nadiya Kaiiun, M. Sci. (environmental science)

Climate Change Lead Verifier

Bureau Veritas Ukraine HSE Department project manager.

She has graduated from National University of Kyiv-Mohyla Academy with the Master Degree in Environmental Science. She is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered). She performed over 15 audits since 2008. She has undergone intensive training on Clean Development Mechanism /Joint Implementation and she is involved in the determination/verification of 9 JI projects.

Kateryna Zinevych, M. Sci. (environmental science)

Climate Change Verifier

Bureau Veritas Ukraine Health, Safety and Environmental Project Manager

She has graduated from National University of Kyiv-Mohyla Academy with the Master Degree in Environmental Science. She is a Lead Auditor of Bureau Veritas Certification for Environment Management System. She has undergone a training course on Clean Development Mechanism /Joint Implementation and she is involved in the determination/verification of 16 JI projects.

Oleg Skoblyk, Specialist (Power Management)

Climate Change Verifier

Bureau Veritas Ukraine HSE Department project manager.

He has graduated from National Technical University of Ukraine 'Kyiv Polytechnic University" with specialty Power Management. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered). He performed over 10 audits since 2008. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 9 JI projects.

Report was reviewed by:

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

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

Bureau Veritas Ukraine HSE Department manager.

He has over 25 years of experience in Research Institute in the field of biochemistry, biotechnology, and microbiology. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered), Quality Management System (IRCA registered), Occupational Health and Safety Management System, and Food Safety Management System. He performed over 140 audits since 1999. Also he is Lead Tutor of the

IRCA registered ISO 14000 EMS Lead Auditor Training Course, and Lead Tutor of the IRCA registered ISO 9000 QMS Lead Auditor Training Course. He has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 26 JI projects.