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TÜV Rheinland (China) Ltd. (TÜV Rheinland)

DETERMINATION REPORT

Determination of the Joint Implementation Large Scale Project

«Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere»

Report No. 01 998 9105072887 - DR
Revision No. 02

Customer: “AGS-2008” LLC

DETERMINATION REPORT

Date of first issue: 26/10/2012	Project No.: 01 998 9105072887
Executor: TÜV Rheinland (China) Ltd. (TÜV Rheinland)	Organizational unit: TÜV Rheinland Ukraine Ltd. Technical Competence Center
Customer: "AGS-2008" LLC	Client ref.: Zagorskyi Sergiy Igorovych

Summary:

TÜV Rheinland (China) Ltd. (TÜV Rheinland) has performed a determination of the JI large scale project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" in 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 serves as project design objective and complete assessment, and is a requirement for all JI projects. It consists of the following three phases: i) a desk review of the project design documents including analysis of the baseline justification and monitoring plan; ii) follow-up interviews with project stakeholders including on site visit; iii) the resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract signing to Determination Report & Opinion, was conducted using TÜV Rheinland (China) Ltd. (TÜV Rheinland) internal procedures.

To address TÜV Rheinland (China) Ltd. (TÜV Rheinland) corrective action and clarification requests, company "AGS-2008" LLC revised the PDD and resubmitted it on 22/11/2012 as version 2.0.

The determination findings presented in this report relate to the large scale project as described in the PDD version 2.0 dated 22/11/2012.

In summary, it is TÜV Rheinland (China) Ltd. (TÜV Rheinland) opinion that the project complies with the criteria for baseline setting and monitoring methodology according to developed JI specific approach, and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: 01 998 9105072887 – DR	Subject Group: Large scale JI project
Project title: "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere"	
Work carried out by: Dr. Valery Yakubovsky – Team Leader, Technical Competence Center Director Dr. Yuriy Kononov – Technical Expert; Ganna Zadnipriana – Auditor; Dmytro Rakovych – Trainee.	
Work verified by: Dr. Lixin Li – Technical Reviewer TÜV Rheinland (China) Ltd. (TÜV Rheinland)	
Determination Report approved by: Dr. Manfred Brinkmann – Accredited Independent Entity Operational Manager	

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Abbreviations

AIE	Accredited Independent Entity
CAR	Corrective Action Request
CL	Clarification Request
CO_2	Carbon Dioxide
ERU	Emission Reduction Unit
GHG	Greenhouse Gas
I	Interview
IETA	International Emissions Trading Association
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
MoV	Means of Verification
NGO	Nongovernmental organization
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change

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ANNEX A: Determination protocol of the Joint Implementation Large Scale Project

1 DETERMINATION OPINION

The determination team of TÜV Rheinland (China) Ltd. (TÜV Rheinland) has performed a determination of the large scale JI project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" under the national procedure (Track 1). 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 document (PDD) including analysis of the baseline justification and monitoring plan;

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

iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

The project participants of the large scale JI project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" selected the JI specific approach for identifying the baseline, in accordance with paragraph 22 (a) of "Guidelines for the Determination and Verification" (DVM).

A baseline for the project was set in accordance with criteria stated in Appendix B to decision 9/CMP.1 (JI guidelines). The JI specific approach is provided in paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring", version 03.

The PDD version 2.0 dated 22/11/2012 provides a description of the chosen baseline in a clear and transparent manner according to "Guidelines for users of the joint implementation project design document form", version 04, and paragraphs 23-29 "Guidance on Criteria for Baseline Setting and Monitoring", version 03.

Project participants used JI specific approach to demonstrate the project additionality. PDD provides justification for this approach in a clear and transparent manner and also in accordance with paragraphs 23 and 29 of Guidelines on criteria for baseline setting and monitoring (version 03).

According to paragraph 44 (b) of Annex 1 Guidelines on criteria for baseline setting and monitoring (version 03) approach which consists in providing transparent information that can be tracked and that has already received a positive determination by accredited independent entity as a comparative project, which is implemented under

comparative circumstances, is used to demonstrate the project additionality.

The JI project is likely to result in reductions of GHG emissions in accordance with the project description. An analysis of the investment and technological barriers, prevailing practice 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 (version 2.0 dated 22/11/2012) and the subsequent interviews have provided TÜV Rheinland (China) Ltd. (TÜV Rheinland) with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for JI projects and the relevant host country criteria.

The final version of the PDD (version 2.0 dated 22/11/2012) was revised based on raised corrective action requests and clarification requests by determination team of TÜV Rheinland (China) Ltd. (TÜV Rheinland) that were satisfactory resolved.

The determination is based on the information made available to the determination team of TÜV Rheinland (China) Ltd. (TÜV Rheinland) and the engagement conditions detailed in this report.

2 INTRODUCTION

"AGS-2008" LLC has commissioned TÜV Rheinland (China) Ltd. (TÜV Rheinland) to determinate its large scale JI project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" (hereafter called "Project") that is located on the territory of settlement Verhnyoherasymivska Village Council of Krasnodonskiy District of Lugansk region of 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.

2.1 Objective

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 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 considered 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, Appendix B of the JI guidelines and the subsequent decisions by the JISC, as well as the host country criteria.

2.2 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.

2.3 JI Project Description

The brief information regarding large scale project is provided in Table 1.

Table 1 – JI large scale project brief information

Project Parties involved:	1. Ukraine (Host Party); 2. Estonia.
Title of the project:	"Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere"
Type of JI activity:	Large scale
Baseline and monitoring methodology:	JI specific approach
Project entity participant:	"AGS-2008"
Other project participants:	ProEffect OÜ
Location of the project:	Settlement Verhnyoherasymivske, Krasnodonskiy District, Lugansk region, Ukraine.
Starting date of the project:	10/03/2008
Length of the crediting period:	3 years and 7 months
Length of the part of crediting period within the first commitment period of the Kyoto Protocol:	01/06/2009 – 31/12/2012
Length of the part of crediting period after the first commitment period of the Kyoto Protocol:	01/01/2013 – 31/12/2013

Decision on implementation of this project was taken on March 10, 2008. "AGS-2008" LLC, basing on the concluded with the customer contract No.118/04-2009 dated 18/04/2009 commits itself to perform works on technical mining recultivation of the waste heaps #1,2,3, located on the territory of settlement Verhnyoherasymivka, Krasnodonskiy District, Lugansk region, Ukraine. "AGS-2008-2008" LLC rents enrichment complex that belongs to "ENERGOCEMENT", basing on the concluded with the customer contract №115/05-2009 dated 15/05/2009. For performing works on dismantling the waste heap and transportation of rock mass to enrichment complex JI project owner entered into agreement with the company-contractor of "SMU" LLC №119/05-2009 dated 19/05/2009, which will implement these works.

"AGS-2008-2008" LLC is the JI project owner and developer of the project design documentation simultaneously.

The starting date of JI project activity is 10/03/2008, when an order on implementation of the proposed project under the Kyoto Protocol, involving Joint Implementation mechanism was signed. The evidence document of starting date was provided by project participants to the determination team as supporting document (please refer to evidence document #/25/ in Table 2, section 3.1. of the Determination Report).

3 METHODOLOGY

The determination consists of the following three phases:

I) a desk review of the project design documents including analysis of the baseline justification and monitoring plan;

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

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

The following sections outline each step in more detail.

3.1 Desk Review of the Project Design Documentation

The Project Design Document (PDD) submitted by "AGS-2008" LLC, and additional background documents related to the project design to be checked by an Accredited Independent Entity were reviewed. The list of submitted documentation is provided below. To address TÜV Rheinland (China) Ltd. (TÜV Rheinland) corrective action and clarification requests, company "AGS-2008" LLC revised the PDD and resubmitted it on 22/11/2012 as version 2.0.

The determination findings presented in this report relate to the project as described in the PDD version 2.0 dated 22/11/2012.

The following table outlines the documentation reviewed during the determination. The documents provided by "AGS-2008" LLC, are indicated in Table 2 below. The documents of Category 1 relate directly to the components of the project. The documents of Category 2 relate to the design and/or methodologies employed in the design or other reference documents.

Table 2 – Documents reviewed during the determination

No.	Title of the document
Documents of Category 1	
/1/	PDD "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere", version 1.0 dated 09/10/2012.
/2/	PDD "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere", version 2.0 dated 22/11/2012.
/3/	GHG emission reduction calculation electronic spreadsheet in Excel file.
/4/	Guidelines for users of the Joint Implementation project design document form, ver. 04.
/5/	"Guidance on Criteria for Baseline Setting and Monitoring",

	version 03.
/6/	"Guidance on the Assessment of Investment Analysis", Version 05.
/7/	JI Guidance. Appendix B to the decision 9/CMP.1.
/8/	"Joint implementation determination and verification manual", version 01.
/9/	"Glossary of joint implementation terms", version 03.
/10/	Letter of Endorsement of the project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" No. 3655/23/7 dated 28/11/2012.
Documents of Category 2	
/11/	Acceptance certificate of coal products for June 2009 dated 05/07/2009.
/12/	Acceptance certificate of coal products for August 2009 dated 02/09/2009.
/13/	Acceptance certificate of coal products for November 2009 dated 02/12/2009.
/14/	Acceptance certificate of coal products for January 2010 dated 03/02/2010.
/15/	Acceptance certificate of coal products for March 2010 dated 02/04/2010.
/16/	Acceptance certificate of coal products for September 2010 dated 06/10/2010.
/17/	Acceptance certificate of coal products for January 2011 dated 01/02/2011.
/18/	Acceptance certificate of coal products for February 2011 dated 04/03/2011.
/19/	Acceptance certificate of coal products for August 2011 dated 03/09/2011.
/20/	Acceptance certificate of coal products for April 2012 dated 10/05/2012.
/21/	Acceptance certificate of coal products for May 2012 dated 01.06.2012p.
/22/	Acceptance certificate of coal products for September 2012 dated 07.10.2012p.
/23/	Acceptance certificates of consumed electricity from supplying company for 2010
/24/	Acceptance certificates of consumed electricity from supplying company for 2011
/25/	Order of Director of "AGS-2008" LLC No.65 dated 10/03/2008 on implementation of the proposed JI project involving mechanisms of the Kyoto Protocol
/26/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for June 2009

/27/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for August 2009
/28/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for March 2009
/29/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for July 2009
/30/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for February 2010
/31/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for March 2010
/32/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for April 2010
/33/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for May 2010
/34/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for August 2011
/35/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for September 2011
/36/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for October 2011
/37/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for November 2011
/38/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for March 2012
/39/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for September 2012
/40/	Acceptance certificate of work completion on the number of transported carbonaceous rock and consumed diesel fuel for October 2012
/41/	Decision No.5 of Verhnoherasymivska Village Council on transfer of the waste heap to closed corporation "Prominvest-ecology» dated 29/01/1999.
/42/	Acceptance certificate of mining wastes of coal production of Verhnoherasymivska Village Council
/43/	Results of determining the petrographic composition of an average sample of mine heaps. Sample #8

/44/	Lithological composition of mine heaps samples. Sample #7. Mine "Krasnodarska"
/45/	Results of determining the petrographic composition of average samples of mine heaps. Sample #7
/46/	Technical passport of the waste heap #1
/47/	Technical passport of the waste heap #2
/48/	Technical passport of the waste heap #3
/49/	Agreement No. 118/04-2009 dated 18/04/2009 on transfer by Melnyk A.V. of waste heaps #1,2,3 of "AGS-2008" LLC with the aim of their recultivation.
/50/	Lease agreement of concentrating complex for processing carbonaceous rock of heaps of "AGS-2008" LLC No.115/05-2009 dated 15/05/2009.
/51/	Agreement No. 119/05-2009 dated 19.05.2009 between "AGS-2008" LLC and "SMU" LLC on providing transportation services for dismantling waste heaps
/52/	Working draft of complex construction for processing coal containing materials of former coal mines
/53/	Environmental impact assessment. EIA. 2007 Scientific Research Production and Commercial Firm "CER "Eko-Tera Ukraine" LLC.
/54/	Attestation certificate of laboratory on conducting activities to determine fuel etc. No.207 dated August 29, 2008
/55/	Attestation certificate of laboratory on conducting activities to determine fuel etc. No. 285 dated September 23, 2011
/56/	Passport of electricity meter Actaris SL7000.
/57/	Technical passport of automobile scales of type "BA-60CM"
/58/	Order No.112/6 on information storage
/59/	Order on Approval of Coal Mining Safety Rule No.62 dated 22/03/2012
/60/	Report on the fire risk of Lugansk Region's waste heaps, Scientific Research Institute "Respirator", Donetsk, 2012.
/61/	Monitoring instruction, acting at "AGS-2008" LLC
/62/	Agreement with laboratory of "MCM "Bilorichenska" JSC No.320/-05 dated May 20, 2009.
/63/	Agreement with laboratory of "MCM "Bilorichenska" JSC No.423/7-09 dated September 23, 2011.
/64/	Agreement No.14/05-2009 dated May 13, 2009 between "AGS-2008" LLC and "ENERGOCEMENT" LLC on conducting weighing on scales "BA-60CM"
/65/	Statistical Yearbook – Fuel and energy resources of Ukraine, 2011
/66/	Statistical Yearbook – Fuel and energy resources of Ukraine, 2009
/67/	Acceptance certificate of waste heaps #1,2,3 to the Agreement No. 118/04-2009 dated 18.04.2009 p.

3.2 Interviews with project stakeholders

TÜV Rheinland (China) Ltd. (TÜV Rheinland) performed interviews with project stakeholders to confirm selected information and to resolve

issues identified in the document review. Representatives of the company "AGS-2008" LLC were interviewed and their names are summarized in Table 3. The main topics of the interviews are summarized in Table 4.

Table 3 – Persons interviewed

No.	Name	Position	Organization
/1/	Zagorskyi Sergiy Igorovych	Director	"AGS-2008" LLC
/2/	Skrypchenko Elina Volodymyrivna	Accountant	"AGS-2008" LLC
/3/	Deryayev Oleksiy Yuriyevych	Technologist	"AGS-2008" LLC
/4/	Sklyar Yuriy Volodymyrovych	Power engineer	"AGS-2008" LLC

Table 4 – Interview topics

No.	Date	Interviewed organization	Interview topics
/1/	18/10/2012	"AGS-2008" LLC	➢ Project decision ➢ Baseline and project scenarios ➢ Barrier analysis, analysis of common practice ➢ Justification of additionality ➢ Monitoring plan ➢ Estimated leakage ➢ Compliance with the requirements of the JI PDD ➢ Organisational structure ➢ Procedures and technology of quality management ➢ Control of measuring equipment ➢ Registration system and database of indicators of measuring equipment ➢ Duties and responsibilities for monitoring project

No.	Date	Interviewed organization	Interview topics
			➢ Monitoring equipment ➢ Environmental impact

3.3 Resolution of Clarification and Corrective Action Requests

The overall determination, from Contract signing to Determination Report and Opinion, was conducted using TÜV Rheinland (China) Ltd. (TÜV Rheinland) internal procedures. 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 TÜV Rheinland (China) Ltd. (TÜV Rheinland) positive conclusion on the project design.

In order to ensure transparency, a determination protocol (Annex A to the Determination report) was customized for the project, in accordance with the Annex to "Joint Implementation Determination and Verification Manual", version 01. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from determining the identified criteria. The determination protocol serves the following purposes:

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

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

To guarantee the transparency of the determination process, the concerns raised are documented in more detail in the determination protocol (Annex A to the Determination report).

The PDD, final version 2.0 dated 22/11/2012 was submitted to the determination team TÜV Rheinland (China) Ltd. (TÜV Rheinland) for final determination. The final version of the PDD (version 2.0 dated 22/11/2012) was revised based on the determination protocol (Annex A to the Determination report) with the issued corrective action requests and clarification requests. The major changes in the PDD: technology used under the project activity; parameters used for calculating GHG emission reductions; monitoring plan; QC/QA procedures.

Determination Protocol Table 1: Mandatory Requirement for Joint Implementation (JI) Project Activities			
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), a Clarification Request (CL) or a Forward Action Request (FAR) of risk or non-compliance with stated requirements. The CAR's, CL's and FAR's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, 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)**	**Comments**	**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 item 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. **Forward action request (FAR)** informs the project participants of an issue that needs to be reviewed during the verification.

Determination Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 1, 2**	**Summary of project owner response**	**Determination team conclusion**
If the conclusions from the Determination are a Corrective Action Request, a Clarification Request or a Forward action request, these should be listed in this section.	Reference to the checklist question number in Tables 2 where the Corrective Action Request, Clarification Request or a Forward action 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, under "Final Conclusion".

Figure 1 – Determination protocol tables

3.4 Internal Technical Review

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

3.5 Determination team

The determination team consists of the following personnel indicated in Table 5 below.

Table 5 – Determination team

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

4 DETERMINATION FINDINGS

In the following subsections the determination findings are stated 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 (Annex A to the Determination report);
2) in case TÜV Rheinland (China) Ltd. (TÜV Rheinland) had identified issues that needed clarification or that represented a risk to the fulfilment 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 subsections and are further documented in the Determination Protocol (Annex A to the Determination report). The determination of the Project resulted in 29 Corrective Action Requests (CARs), 11 Clarification Requests (CLs) and 1 Forward Action Request (FAR) that will be considered during the first verification and closed after issuing written project approvals by Parties involved;
3) conclusions for determination subject are presented in each subsection.

The considerations, findings and means of verification for areas of determination are provided below in accordance with the Determination and Verification Manual (DVM). All information indicated in the following subsections relates to the PDD version 2.0 dated 22/11/2012 (hereinafter called "PDD").

4.1 Project approval by Parties Involved

In accordance with paragraphs 19-20 of the DVM the assessment of this area focuses on whether the designated focal points (DFPs) of all Parties listed as "Parties involved" in the PDD have provided written project approvals. It also should be assessed whether the written project approvals referred to above are unconditional.

The project has no written project approvals by Parties involved. "Glossary of joint implementation terms", version 03 defines the following:
a) At least the written project approval(s) by the host Party(ies) should be provided to the AIE and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication in accordance with paragraph 34 of the JI guidelines;
b) At least one written project approval by a Party involved in the JI project, other than the host Party(ies), should be provided to the AIE and made available to the secretariat by the AIE when submitting the

first verification report for publication in accordance with paragraph 38 of the JI guidelines, at the latest.

To obtain a written project approval by the host Party (Ukraine) a final Determination Report should be submitted to the State Environmental Investment Agency of Ukraine. Written project approval by *Estonia* (Party involved in the project, other than the host Party), will be obtained before the submission of the first verification report for publication in accordance with paragraph 38 of the JI Guidelines.

The FAR 01 was raised. It will be closed after issuing written project approvals by Parties involved.

Identified problem areas for project approval, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination Report (refer to FAR 01).

4.2 Authorization of project participants by Parties involved

In accordance with paragraph 21 of the DVM the assessment of this area focuses on whether each of the legal entities listed as project participants in the PDD is authorized by a Party involved, which is also listed in the PDD, through: a written project approval by a Party involved, explicitly stating the name of the legal entity; or any other form of project participant authorization in writing, explicitly stating the name of the legal entity.

The following legal entities were included in the PDD as project participants:

- "AGS-2008" LLC;
- ProEffect OÜ.

Detailed information on the project participants is listed in Section A.3. of the PDD. Contact information on the project participants, which clearly specify the names of legal entities, is listed in Annex 1 of the PDD.

Identified problem areas for authorization of project participants by Parties involved, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination Report (refer to FAR 01).

4.3 Baseline Setting

In accordance with paragraphs 22 - 26 of the DVM the assessment of this area focuses on various aspects of the baseline setting by project participants.

The paragraph 22 of the DVM defines two following approaches selected for identifying the baseline:
(a) By using a methodology for baseline setting and monitoring developed in accordance with Appendix B of the JI guidelines (hereinafter referred to as JI specific approach);
(b) By using a baseline and monitoring methodology approved by the CDM Executive Board in its totality (hereinafter referred to as approved CDM methodology approach).

The project participants of the project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" selected the JI specific approach for identifying the baseline.

A baseline for the project was set in accordance with criteria stated in Appendix B to decision 9/CMP.1 (JI guidelines). The JI specific approach is provided in paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring", version 03.

The PDD provides a description of the chosen baseline in a clear and transparent manner according to "Guidelines for users of the joint implementation project design document form", version 04, as well as a justification per the "Guidance on criteria for baseline setting and monitoring", version 03 (paragraphs 23 - 29).

The desk review of the PDD and follow-up interviews provided enough reasons for TÜV Rheinland (China) Ltd. (TÜV Rheinland) to assess that the baseline for this JI project is established:

a) **By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one.**
Plausible future scenarios are listed below:

Scenario 1. Continuation of existing situation

This scenario does not require implementation of any measures, and therefore there are no barriers.

Scenario 2. Implementation of measures on the use of thermal energy of the waste heap that burns for energy generation.

Technological barrier: This scenario is based on an experimental technology that has not yet been used. This approach is not suitable for all waste heaps, as the project owner will have to balance the availability of energy resources (i.e. waste heap location) and location of the energy consumer. Electricity production at the site addresses this issue, but requires additional capacity connections. Generally, it is also need to prove the feasibility of this technology. Besides it does not allow monitoring and controlling the emission of gases.

Investment barrier: Considering the fact that this technology is in its initial phase of the experiment, investment into this project results in a high risk besides Ukraine is ranked as a high-risk country[1]. The pioneering character of the project may interest programmes of technical support and governmental incentives, but the cost of the produced energy is likely to be much higher than that of the alternatives.

Scenario 3. Production of construction materials on the basis of raw materials from waste heaps

Technological barrier: This scenario is based on known technology, which, however, is not currently available in Ukraine and there is no evidence that such projects will be implemented in the near future. It is also not suitable for all types of waste heaps as the content of waste heap has to be predictable in order for project owner to be able to produce quality materials[2]. High content of sulphur and moisture can reduce the suitability of the waste heap for processing. A large-scale and detailed exploration of the waste heap has to be performed prior to the start of the project. Pilot projects of this type are implemented only with the support of public funding[3].

Investment barrier: Taking into account the fact that the introduction of this technology faces many risks and technological barriers, investment attractiveness of this scenario is very low. Condition of waste heaps is not controlled by the State, and the owners of heaps often neglect measures for their monitoring. It is not profitable for private entities to produce building materials by recycling rock mass, because the level of uncertainty is very large. This scenario is only possible with available financial support from the State, which currently does not make any assumptions, that it is possible.

Scenario 4. Coal extraction from waste heaps without incentives of JI mechanism

Investment barrier: This scenario is financially unattractive and faces barriers. Please refer to Section B.2. for details.

Scenario 5. Systematic monitoring of waste heaps condition, regular fire prevention and application of extinguishing measures

Technological barrier: This scenario does not include any income, but involves additional costs for the owners of the waste heaps. Monitoring of the state of waste heaps is not performed systematically, and all activities are left at the discretion of the owner of the heaps. Basically

[1] AMB Country Risk Report: Ukraine October 29, 2010 http://www3.ambest.com/ratings/cr/reports/Ukraine.pdf
[2] *Opportunities for international best practice use in coal mining waste heap utilization of Donbas*, Matveeva N.G., Ecology: Collection of Scientific Papers, Eastern Ukrainian National University, Luhansk, No.1 2007 http://www.nbuv.gov.ua/portal/natural/Ecology/2007_1/Article_09.pdf
[3] http://www.rostovstroy.ru/archive/articles/1164.html

waste heaps belong to mines or regional associations of mining. Coal mines of Ukraine suffer from limited investment that often causes problems of danger because of poor conditions of extraction and financial difficulties, besides salary of miners is often delayed for several months. In this case, the waste heaps are considered as an additional burden, and mine usually do not make even minimum required measures. Self-ignition and burning of heaps are common practice. Exact statistics are not always available. From a commercial point of view fines, which are usually issued by governments, are lower than the cost of necessary measures highlighted in this project.

Investment barrier: This scenario does not represent any revenues but anticipates additional costs for waste heaps owners. Monitoring of the waste heap status is not carried out systematically and actions are left to the discretion of the individual owner of the waste heaps. Mainly waste heaps belong to mines or regional coal mining associations. Coal mines in Ukraine suffer from limited funding resulting in safety problems due to complicated mining conditions and financial constraints with miners' salaries often being delayed by few months. In this case waste heaps are considered as an additional burden, and mines usually do not make even minimum measures required. Self-heating and burning of heaps are common practice. Exact statistics are not always available. From a commercial view point the fines that are usually levied by the authorities are considerably lower than the costs of all the measures outlined in this project.

All scenarios, except Scenario 1 – Continuation of the existing situation, face prohibitive barriers. Therefore, continuation of the existing situation is the most plausible future scenario and is the baseline scenario for 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 TÜV Rheinland (China) Ltd. (TÜV Rheinland) assessed whether the key factors that affect a baseline were taken into account. The project participants established the baseline taking into account the following key factors:

In accordance with the laws and legal norms of Ukraine waste heaps are the source of possible dangerous emissions into the atmosphere. Measures on extinguishing and monitoring of fire-hazardous waste heaps are regulated by "Mine Safety Rules"[4]. In practice, the legal use of this document is not significant because in certain cases These measures are regulated by Code of Ukraine on Administrative Violations

[4] Chapter IX, Article 7, NPAOP 10.0-1.01-10 Mine Safety Rules. Order No.62 State Committee of Ukraine on industrial security, labour protection and mining supervision – 22/03/2010 http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=z0398-10

that in Article 41 provides maximum penalty for such violation[4] only 10 non-taxable minimum incomes, i.e. subsistence level according to Tax Code (Section 1, Article XX section 5 and section IV of article 169.1.1)[5, 6, 7] and is 1044 hrn as of[8] July 1, 2012. Thus, the maximum penalty is 10 440 hrn (1090 Euros), that is small amount for the company. However, because of the big number of waste heaps and their large sizes, coupled with the limited resources of the owners, they usually do not make even the minimum required monitoring. In case of self-heating of the waste heap, the owners of these objects typically do not apply any measures to extinguish the fire centres, and only pay small penalties for environmental pollution by combustion products. Under such circumstances it is clear that the baseline scenario does not contradict valid laws and legal norms, taking into account their performance in Ukraine.

c) **In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors.**

The project participants applied the selected approach with transparency. Necessary information on approaches, assumptions, parameters, data sources and key factors is available in the PDD.

d) **Taking into account of uncertainties and using conservativeness assumptions.**

Project participants used default values to the extent possible in order to reduce uncertainty and provide conservative data for emission calculations. Project participants used the default values as often as possible in order to reduce the level of uncertainty and provide conservativeness of amount of emissions calculation. Data and parameters monitoring of which has not been conducted during the crediting period, and are determined only once (and remain constant throughout the crediting period), and are available at the stage of determination of PDD were taken from National Inventory Report of Ukraine 1990-2010, as well as from Guidelines for National Greenhouse Gas Inventories. All parameters that are taken for the calculation of the GHG emission reduction under the project, and sources of which are National Inventory Report of Ukraine 1990-2010, as well as data of State Statistics Service of Ukraine and DFP of Ukraine (SEIA) may be updated in case of publishing new relevant documents. If data for the current period are not available, the last available data are taken into the calculations of the GHG emission reduction.

[4] Article 41 of the Code of Ukraine on Administrative Violations - http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?page=2&nreg=80731-10
[5] http://www.profiwins.com.ua/uk/legislation/kodeks/1368.html
[6] http://www.profiwins.com.ua/uk/legislation/kodeks/1350.html
[7] http://jurisconsult.net.ua/spravochniki/382-rozmir-minimalnoyi-zarobitnoyi-plati-z.html
[8] http://minfin.com.ua/buh/minimum/

e) **In such a way that emission reduction units (ERUs) cannot be earned for decreases in activity levels outside the project activity or due to force majeure.**
According to the proposed approach emission reductions will be earned only within the project activity, so no emission reductions can be earned due to any changes outside the project activity 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.**
The PDD draws on the list of standard variables contained in Appendix B to "Guidance on criteria for baseline setting and monitoring", version 03 if possible.

As the result of this analysis TÜV Rheinland (China) Ltd. (TÜV Rheinland) can confirm that the baseline for this project is established in accordance with criteria stated in the Appendix B of the JI guidelines and justified in accordance with paragraphs 23-29 of the "Guidance on criteria for baseline setting and monitoring", version 03.

Identified problem areas for baseline setting, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.4 Additionality

In accordance with paragraphs 27 - 31 of the DVM the assessment of this area focuses on whether a project provides "a reduction in emissions by sources, or an enhancement of net removals by sinks, that is additional to any that would otherwise occur" in accordance with Article 6 of the Kyoto Protocol.

The paragraph 28 of the DVM defines three approaches used to demonstrate additionality – items (a), (b), (c) for JI specific approach.

Project participants used JI specific approach to demonstrate the project additionality. PDD provides justification for this approach in a clear and transparent manner and also in accordance with paragraphs 23 and 29 of Guidelines on criteria for baseline setting and monitoring (version 03).

According to paragraph 44 (b) of Annex 1 Guidelines on criteria for baseline setting and monitoring (version 03) approach which consists in providing transparent information that can be tracked and that has already received a positive determination by accredited independent entity as a comparative project, which is implemented under comparative circumstances, is used to demonstrate the project additionality.

The project "Processing of Waste Heaps at "Monolith-Ukraine" is selected as the comparable JI project. It has received a positive determination by an independent accredited body with the conclusion that the result of its implementation will reduce anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of GHG emissions that are additional to those that would be the absence of the project. This determination JISC has recognized the final. Demonstration that the said project is comparable and implemented (implemented) in similar circumstances:

1) Both projects propose **the same measures to reduce GHG emissions in the atmosphere**: complex of measures on thermal coal extraction from waste heaps, which were formed as a result of coal mines activity, is implemented. The result of processing rock mass of waste heaps is reduction of GHG emissions that would occur because of their spontaneous combustion and subsequent burning. Furthermore, additional amount of thermal coal, which will replace coal from mine and partially satisfy the need for energy production, is received. The same sources of GHG emissions - project equipment and waste heaps - are included to the boundaries of both projects.
2) **Projects are implemented in the same geographical area.**
   Both projects are implemented in Lugansk region, Ukraine.
3) **Both projects have a similar scale**:
   Projects are Joint Implementation large-scale projects. Large number of concentrating and auxiliary equipment is used for processing rock mass of waste heaps. Both projects are processing a large number of rock mass and recultivate wastes of coal industry.
4) **Both projects are implemented under identical conditions of legislation:**
   During the time interval between the dates of implementation of two JI projects regulatory and legal frameworks bases have not undergone significant changes. The situation around the coal industry remained stable.
5) **Both projects introduce similar technology:**
   Technology, which is implemented in the proposed and comparable projects, is similar. In both projects, waste heaps are dismantled using standard excavators and bulldozers. Material from heaps is transported to installation for rock mass beneficiation using trucks. In both projects, wet method of rock beneficiation is used. steeply inclined separators that separate coal faction from barren rock are used in both projects. Both technologies use a closed system of water use, preventing additional impact on the environment. Both technologies are modern and efficient, which are aimed at enriching rock mass of waste heaps.

Taking into account the above information, it can be concluded that determination of the project "Processing of Waste Heaps at "Monolith-Ukraine" is relevant to this project.

Outcome of the analysis: According to Paragraph 44 (b) of Appendix 1 of "Guidance on criteria for baseline setting and monitoring", Version 03, additionality was demonstrated by providing traceable and transparent information that similar approach to demonstrating additionality has already been applied in those cases, where determination is considered final and can be taken as comparable one using criteria for determining the baseline in Paragraph 12 of Guidance, as well as traceable and transparent information that has received positive determination by accredited independent entity that comparative project "Processing of Waste Heaps at "Monolith-Ukraine" (ITL Projects ID: UA1000034) is implemented under comparable circumstances (similar technologies, similar technology, similar implementation time, similar project scale), would result in a reduction of anthropogenic emissions sources or an enhancement of net anthropogenic removals by sinks that is additional to any that would otherwise occur and have provided justification on why this determination is relevant for the project at hand. Overall, this project is additional.

4.5 Project boundary

In accordance with paragraphs 32-33 of the DVM the assessment of this area focuses on correct and complete delineation of the project boundary, inclusion and exclusion of any sources of greenhouse gases (GHGs) related to the baseline or the project.

It was assessed through the desk review of submitted documentation and follow-up interviews that project participants used the JI specific approach towards baseline setting in this project and establishing the project boundary.

The details on the project boundary were provided in section B.3. of the PDD. The desk review of submitted documentation enabled TÜV Rheinland (China) Ltd. (TÜV Rheinland) to assess that the project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are:

- under the control of the project participants;
- reasonably attributable to the project; and
- significant.

The baseline emission sources of GHGs that are included in the project boundaries are listed below.

- CO_2 emissions related to waste heap combustion.

The project emission sources of GHGs that are included in the project boundaries are listed below.

- Project emissions as a result of consumption of diesel fuel as a result of the project activity in period *y*;
- Project emissions as a result of electricity consumption from the grid as a result of the project activity in period *y*.

All gases and sources included in the project boundary were explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD by using figures 7-8 and the details were provided by Table 9 in section B.3. of the PDD.

Identified problem areas for project boundary, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.6 Crediting period

In accordance with paragraph 34 of the DVM the assessment of this area focuses on correct and complete provision of information on the projects starting date, expected operational lifetime and the length of the crediting period.

It was assessed through the desk review of submitted documentation and follow-up interviews that the project participants had correctly stated in the PDD:

- **the starting date of the project** is 10/03/2008 according to the order No. 65 dated 10/03/2008 on the decision making concerning JI project implementation involving Joint Implementation mechanism under the Kyoto Protocol. Project starting date is after 2000.

- **the expected operational lifetime** of the project in years and months is 4 years and 7 months or 55 months.

- **the length of the crediting period** (from 01/06/2009 to 31/12/2013) in years and months is 4 years and 7 months or 55 months.

Project participants stated one part of crediting period in years and months in the PDD for this project that are:

- **Part of crediting period within the first commitment period of the Kyoto Protocol** - from 01/06/2009 to 31/12/2012. Length of the part of crediting period within the first commitment period of the Kyoto Protocol is 3 years and 7 months or 43 months.

Starting date of the crediting period is starting date of emission reductions generation under the project.

- **Part of the period after the end of the first commitment period of the Kyoto Protocol –** from 01/01/2013 to 31/12/2013. Length of the part of period after the first commitment period of the Kyoto Protocol is 1 year or 12 months.

The desk review of submitted documentation and follow-up interviews enabled TÜV Rheinland (China) Ltd. (TÜV Rheinland) to assess that all information on the projects starting date, expected operational lifetime and the length of the crediting period is correct and complete.

The evidence documents of projects' starting date, operational lifetime, starting date of the crediting period were provided by project participants to the determination team as supporting documents (please refer to evidence documents in Table 2, section 3.1. of the Determination Report).

Identified problem areas for crediting period, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.7 Monitoring plan

In accordance with paragraphs 35-39 of the DVM the assessment of this area focuses on assessing the completeness and correctness of the established monitoring plan and whether it meets the necessary requirements.

The paragraph 35 of the DVM defines two following approaches selected for establishment of the monitoring plan:
(a) JI specific approach;
(b) Approved CDM methodology approach.

The project participants of the project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" selected the JI specific approach for establishment of the monitoring plan.

The monitoring plan was established in accordance with criteria stated in Appendix B to decision 9/CMP.1 (JI guidelines). JI specific approach is defined in paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring", version 03.

The information indicated below, that refers to the components of monitoring plan, was assessed by TÜV Rheinland (China) Ltd. (TÜV Rheinland) through the desk review of the submitted documentation and follow-up interviews.

I. The chosen monitoring plan includes all procedures necessary for accurate and conservative calculation of emission reductions, 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.

II. The established monitoring plan specifies the indicators, constants and variables that are reliable and provide consistent and accurate values; are valid and clearly connected with the effect to be measured, and that provide a transparent picture of the emission reductions to be monitored. The default values which were used in the monitoring plan were selected by carefully balancing accuracy and reasonableness. These values originate from recognized sources, are supported by statistical analyses providing reasonable confidence levels and are presented in a transparent manner in the PDD.
III. For those values that are to be provided by the project participants it is clearly indicated, how the values are to be selected and justified by explanation of what types of sources are to be used and the vintage of data to be used. For all values the precise references from which these values are taken are clearly indicated in section D of the PDD and the conservativeness of the values is justified. The sources from which the data are obtained do not foresee the situations where the expected data are not available.

IV. The International System Units (SI units) are used for values provided by the project participants.

V. Any parameters, coefficients, variables that are used to calculate baseline emissions but are obtained through monitoring are noted. The desk review of the documentation showed that the consistency between the baseline and monitoring plan is ensured.

VI. The project activity will include monitoring of GHG emissions in the baseline and project scenarios. Variables to be monitored in the baseline and project scenarios include the parameters listed in tables 6, 7 and 8 below.

Table 6. Data and parameters that are not monitored throughout the crediting period, but are determined only once and that are available already at the stage of determination regarding the PDD.

Parameter	Unit	Description
GWP_{CH4}	$tCO_2e/ t CH_4$	Global warming potential of methane
ρ_{CH4}	t/m^3	Methane density
p_{WHB}	dimensionless unit	Correction factor, determining the probability of spontaneous combustion of the waste heap
$EF_{CH_4,CM}$	m^3/t	Fugitive methane emissions factor during coal mines operation
$NCV_{Coal,y}$	TJ/kt	Net calorific value of coal in year *y*
$OXID_{Coal,y}$	ratio	Carbon oxidation factor of coal in year *y*

Parameter	Unit	Description
$k^{C}_{Coal,y}$	t C/TJ	Carbon content of coal in year *y*
$A_{coal,y}$	%	Average ash content of thermal coal extracted in Lugansk region, Ukraine
$W_{coal,y}$	%	Average water content of thermal coal extracted in Lugansk region, Ukraine
$N^{e}_{coal,y}$	MWh/t	Average consumption of electricity per tonne of extracted coal in Ukraine in year *y*
$NCV_{diesel,y}$	TJ/kt	Net calorific value of diesel fuel in year *y*
$OXID_{diesel,y}$	ratio	Carbon oxidation factor of diesel fuel in period *y*
$k^{C}_{diesel,y}$	t C/TJ	Carbon content of diesel fuel in period *y*
$EF_{grid,y}$	tCO_2/MWh	Specific indirect carbon dioxide emissions during the consumption of electric energy by the 2nd class electricity consumers according to Procedure for determining consumers' classes.

Table 7. 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 regarding the PDD.

All parameters that are taken for the calculation of GHG emission reductions under the project, and sources of which is National Inventory Report in Ukraine for 1990-2010, as well as data of the State Statistics Service of Ukraine and DFP of Ukraine (SEIA), publications of the Intergovernmental Panel on Climate Change and the research on fire hazard of waste heaps, held by Scientific Research Institute "Respirator", can be updated in case of publications of new relevant documents. If the data for the current period are not available, the last available data are taken into calculation of GHG emission reductions.

Table 8. Data and parameters that are monitored throughout the crediting period.

Parameter	Unit	Description
$EC_{PJ,y}$	kWh	Amount of electricity, consumed as a result of project activity in the relevant period *y*
$FC_{PJ,Diesel,y}$	t	Amount of diesel fuel, consumed by transport as a result of project activity in the relevant period *y*
$FR_{Coal,y}$	t	Amount of coal products, received by enrichment of carbonaceous rock as a result of project activity in the relevant period *y*

Parameter	Unit	Description
$A_{coal,PJ,y}$	%	Average ash content of enriched coal, extracted from the waste heaps in the relevant period *y*
$W_{coal,PJ,y}$	%	Average water content of enriched coal, extracted from the waste heaps in the relevant period *y*

VII. The monitoring plan draws on the list of standard variables contained in Appendix B to "Guidance on criteria for baseline setting and monitoring", version 03, as appropriate.

VIII. The established monitoring plan described the methods employed for data monitoring (including its frequency) and recording. This information is provided in the tabular format in section D.2. of the PDD. The monitoring plan also elaborates all algorithms and formulae used for the calculation of baseline emissions and project emissions. The underlying rationale for the algorithms and formulae is sounded and explained as necessary. The project participants used consistent variables, equation formats, subscripts etc.; numbered all equations throughout the PDD; defined and indicated all variables and constants with units.

IX. The conservativeness of the algorithms and procedures is justified and methods to quantitatively account for uncertainty in key parameters are included, to the extent possible (Annex 2 to the PDD provides quantitative estimations of uncertainty in key baseline parameters). References for all parameters are provided as necessary. It is clearly stated in Annex 2 to the PDD which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed. The desk review of the documentation showed that the consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions of the baseline is ensured.

X. The national and international monitoring standards are not applied to monitor certain aspects of the project.

XI. A clear management structure will be identified to establish the division of responsibilities for gathering monitoring data. Respective services of the plant will collect relevant data in the form of technical reports and other statistical documents. All monitored data will be stored both electronically and in hard copy. The quality of collected data will be secured by conducting regular calibrations of applied meters and sensors. Calibration interval will be chosen as per passport or technical manual data.

XII. The document which indicates that data monitored and required for verification are to be kept for two years after the last transfer of

ERUs for the project was provided to the AIE in supporting documentation (please refer to the evidence document # /58/ in Table 2, Section 3.1. of the Determination Report).

XIII. The monitoring plan, on the whole, reflects good monitoring practices: the structure of data collection is clearly defined; all data concerning the greenhouse gas emissions within the project boundaries is monitored and used in calculations appropriately; all meters are properly calibrated and precisely indicate values of the measured parameters.

The evidence documents that relates to the completeness and correctness of the established monitoring plan were provided by project participants to the determination team as supporting documents (please refer to evidence documents in Table 2, section 3.1. of the Determination Report).

Identified problem areas for monitoring plan, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.8 Leakage

In accordance with paragraphs 40-41 of the DVM this area focuses on checking of the assessment of the potential leakage in the project.

Project participants of "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" selected the JI specific approach for baseline setting.

Leakage is the net change of anthropogenic emissions by sources and/or removals by sinks of GHGs which is done outside the project boundary, and that can be measured and is directly attributable to the JI project.

This project will result in a net change in of anthropogenic emissions by sources and/or removals by sinks of GHGs come from two sources:

- Leakages caused by fugitive methane emissions during coal production in coal mines;
- Leakages related to electricity consumption from the grid of Ukraine during coal production in the mine.

In the baseline scenario coal production by mining method is implemented (underground coal mines), while *fugitive emissions of coal mine methane* appear. In the project scenario, additional amount of thermal coal is extracted, using wet method of rock mass beneficiation of the waste heap, which otherwise would be burned. Therefore, coal produced by the project activity substitutes the coal would have been otherwise mined in the baseline scenario that would cause fugitive methane emissions. Thus, coal extraction from the waste heap will cause methane emissions.

As reliable and accurate national data on fugitive methane emissions associated with the production of coal are available, project participants used this data to calculate the amount of fugitive CH_4.

This leakage is measurable: through the same procedure as used in 2006 IPCC Guidelines[9] (See Volume 2, Chapter 4, p. 4-11) and also used in CDM approved methodology ACM009[10] Version 03.2 (p. 8). Activity data (in our case amount of coal extracted from the waste heap which is monitored directly) is multiplied by the multi-project carbon emission factor for fugitive methane emissions from coal mining (which is sourced from the relevant national study – National Inventory Report[11] of Ukraine under the Kyoto Protocol) and conversion coefficients. It is important to mention that IPCC and relevant National Inventories take into account raw amount of coal that is being mined in these calculations whereas in the PDD coal extracted from the waste heaps is high quality coal concentrate. Therefore, approach taken in the PDD is conservative as in coal mining more ROW coal should be mined causing more fugitive methane emissions to produce equivalent amount of high quality coal concentrate.

Electricity consumption and related with this greenhouse gas emissions during waste heap dismantling will be included in the calculation of the project emissions. *Carbon dioxide emissions as a result of electricity consumption*, during coal mining in the amount that equals to the project amount of coal, is leakage that can be taken into account on the basis of State Statistics Committee[12] about the specific electricity consumption during coal production in the mines of Ukraine in the relevant year. Data in this link indicates that the specific level of electricity consumption during coal mining is higher than the specific electricity consumption from grid in the project scenario.

Leakages as a result of consumption of other types of energy carriers during coal production in the mines are insignificant in comparison to the leakages as a result of electricity consumption[13], so in this respect, and for reasons of conservatism, we will take them equal to zero.

Leakages in period *y* are calculated as follows:

$$LE_y = LE_{CH_4,y} + LE_{EL,y} \qquad \text{(Equation 1)},$$

where:

LE_y - Leakages as a result from the project implementation in period *y*, tCO_2e;

[9] http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_4_Ch4_Fugitive_Emissions.pdf
[10] http://cdm.unfccc.int/UserManagement/FileStorage/K4P3YG4TNQ5ECFNA8MBK2QSMR6HTEM
[11] http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/5888.php
[12] http://www.ukrstat.gov.ua/
[13] *THE EFFECTIVE METHOD OF ELECTRICITY CONSUMPTION CONTROL AT COAL MINES Gryaduschy B.A., Doctor of Technical Sciences, DonUGI, Lisovoy G.N., Myalkovsky V.I., ChehlatyN.A., Candidates scientific degree of Technical science, NIIGM named after Fedorov M. M., Donetsk, Ukraine www.mishor.esco.co. ua/2005/Thesis/10. doc*

$LE_{CH_4,y}$ - Leakages related to the fugitive methane emissions during the operation of mines in period *y*, tCO_2e;

$LE_{EL,y}$ - Leakages as a result of electricity consumption from energy grid during coal mining in period *y*, tCO_2e.

Leakages related to the fugitive methane emissions during the operation of mines in period *y* are calculated as follows:

$$LE_{CH_4,y} = -FC_{BE,Coal,y} \cdot EF_{CH_4,CM} \cdot \rho_{CH_4} \cdot GWP_{CH_4} \quad \text{(Equation 2),}$$

where:

$FC_{BE,Coal,y}$ - Amount of coal that would be mined in the baseline scenario and consumed in the energy sector for energy production in period *y*, t;

$EF_{CH_4,CM}$ - Fugitive methane emissions factor during coal mining, m^3/t;

ρ_{CH4} - Methane density, t/m^3;

GWP_{CH4} - Global warming potential of methane, tCO_2e/tCH_4.

Amount of coal that would be mined in the baseline scenario and combusted for energy production is calculated according to equation (3) of the PDD.

Leakages related to electricity consumption from energy grid during coal mining in period *y* are calculated as follows:

$$LE_{EL,y} = -(FC_{BE,Coal,y} \cdot N^{e}_{coal,y} \cdot EF_{grid,y}) \quad \text{(Equation 3),}$$

where:

$FC_{BE,coal,y}$ - Amount of coal that would be mined in the baseline scenario and consumed in the energy sector for energy production in period *y*, t;

$N^{E}_{coal,y}$ - Average consumption of electricity per tonne of extracted coal in Ukraine in period *y*, MWh/t;

$EF_{grid,y}$ - Specific indirect carbon dioxide emissions from electricity consumption by 2nd class electricity consumers in accordance with Procedure for determining the class of consumers, tCO_2/MWh.

Identified problem areas for leakage, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.9 Estimation of emission reductions

In accordance with paragraphs 42-47 of the DVM the assessment of this area focuses on checking the completeness and correctness of the provided methods and results of emission reduction estimates in the JI project.

The paragraph 42 of the DVM defines two following approaches to estimate the emission reductions or enhancement of net removals generated by the project selected the JI specific approach:
(a) Assessment of emissions or net removals in the baseline scenario and in the project scenario; or
(b) Direct assessment of emission reductions.

As per JI specific approach project participants chose the following approach to estimate the emission reductions generated by the project: assessment of emissions in the baseline scenario and in the project scenario. According to this approach emission reductions were calculated as follows:

$$ER_y = BE_y - PE_y - LE_y \qquad \text{(Equation 4)}$$

where:

ER_y – Emission reductions in JI project in year y [tCO_2e];
BE_y – Baseline emissions in year y [tCO_2e];
PE_y – Project emissions in year y [tCO_2e];
LE_y – Leakage in year y [tCO_2e].

Ex ante estimates of emissions for the project scenario (within the project boundary), emissions for the baseline scenario (within the project boundary) and emission reductions are provided in Section E of the PDD. These estimates in the PDD are given on a periodic basis, from the beginning until the end of the crediting period, in tonnes of CO_2 equivalent, using appropriate emission factors. The formula used for calculating these estimates are consistent throughout the PDD.

The baseline emissions of the project are calculated under the formula:

$$BE_y = BE_{WHB,y} \qquad \text{(Equation 5),}$$

where:

BE_y, - Baseline emissions in period y, tCO_2e,

$BE_{WHB,y}$ - Baseline emissions related to waste heaps combustion in period y, tCO_2e.

Baseline emissions related to waste heaps combustion are in turn calculated as:

$$BE_{WHB} = \frac{FC_{BE,Coal,y}}{1000} \cdot p_{WHB} \cdot NCV_{Coal,y} \cdot OXID_{Coal,y} \cdot k^{C}_{Coal,y} \cdot 44/12 \text{ ,} \qquad \text{(Equation 6),}$$

where:

$FC_{BE,Coal,y}$ - Amount of coal that would be mined in the baseline scenario and consumed in the energy sector for energy production in the relevant period y, t;

ρ_{WHB} - Correction factor, determining the probability of spontaneous combustion of the waste heap, dimensionless unit;

$NCV_{Coal,y}$ - Net calorific value of coal in period *y*, TJ/kt;

$OXID_{Coal,y}$ - Carbon oxidation factor for coal in period *y*, relative unit;

$k^{C}_{Coal,y}$ - Carbon content of coal in period *y*, t C/TJ;

$\frac{44}{12}$ - Ration between molecular mass of CO_2 and C. Reflect oxidation of C to CO_2;

1/1000 - Physical transformation [t] in [kt] for calculation purposes.

Amount of coal, mined in the baseline scenario and consumed in the energy sector for energy production, replaced by equivalent amount of coal, extracted from the waste heaps in the project scenario. Qualitative indicators of coal extracted in the coal mine and received as a result of recultivation of waste heaps may differ significantly. All coal-containing fractions consist of carbon, sulphur, water content (water) and ballast particle – ash, which does not burn. Indicators of ash and water content of coal in baseline and project scenarios should be brought to averaged characteristics for Ukraine. It should also be noted that the averaging characteristics of quality of Ukrainian coal is performed for all classes of coal, including lignite coal, which is not used for electricity production at TPPs. High quality coal concentrate will be produced under the project for the purposes of power engineering. In addition to moisture and ash coal (carbonaceous rock) also has sulphur, but its amount does not exceed few percent[14], its content in carbonaceous rock of waste heap always less, then in coal, extracted in the mines, therefore for calculating the amount of extracted in the mine coal, which is substituted by the coal extracted from the waste heaps, this indicator can be neglected. Amount of coal that would have been mined in the baseline scenario and combusted for energy production is calculated as follows:

$$FC_{BE,coal,y} = FR_{coal,y} \cdot \frac{\left(1 - \frac{A_{coal,PJ,y}}{100} - \frac{W_{coal,PJ,y}}{100}\right)}{\left(1 - \frac{A_{coal,y}}{100} - \frac{W_{coal,y}}{100}\right)} \quad \text{(Equation 7),}$$

where:

$FR_{coal,y}$ - Amount of coal product, received by enrichment of carbonaceous rock as a result of project activity in the relevant period *y*;

$A_{coal,PJ,y}$ - Average ash content of extracted from the waste heaps coal as a result of the project activity in period *y*,%;

[14] http://masters.donntu.edu.ua/2009/feht/semkovskiy/library/article9.htm

$W_{coal,PJ,y}$ - Average water content of extracted from the waste heaps coal as a result of the project activity in period *y*,%;

$A_{coal,y}$ - Average ash content of thermal coal extracted in Lugansk region of Ukraine in period *y*, %;

$W_{coal,y}$ - Average water content of thermal coal extracted in Lugansk region of Ukraine in period *y*, %.

The detailed algorithms and formulae for estimating emissions in the baseline scenario of the project are described under sections B.1 and D.1. of the PDD. The details of the calculation are provided in the GHG emission reductions calculation spreadsheet in Excel format.

Project emissions are calculated as follows:

$$PE_{y} = PE_{EL,y} + PE_{Diesel,y}, \quad \text{(Equation 8),}$$

where:

PE_{y}, - Project emissions due to project activity in period *y*, tCO_2e;

$PE_{EL,y}$ - Project emissions due to consumption of electricity from the grid by the project activity in period *y*, tCO_2e;

$PE_{Diesel,y}$ - Project emissions due to consumption of diesel fuel by the project activity in period *y*, tCO_2e.

Project emissions due to consumption of electricity from the grid by the project activity are calculated as follows:

$$PE_{EL,y} = EC_{PJ,y} \cdot EF_{grid,y}, \quad \text{(Equation 9),}$$

where:

$EC_{PJ,y}$ - Amount of electricity, consumed as a result of the project activity in the relevant period *y*, MWh;

$EF_{grid,y}$ - Specific indirect carbon dioxide emissions from electricity consumption by 2nd class electricity consumers in accordance with Procedure for determining the class of consumers, adopted by Resolution of National Electricity Regulatory Commission of Ukraine on 13 of August 1998 No.1052, tCO_2/MWh.

Project emissions due to consumption of diesel fuel by the project activity are calculated as follows:

$$PE_{Diesel,y} = \frac{FC_{PJ,Diesel,y}}{1000} \cdot NCV_{Diesel,y} \cdot OXID_{Diesel,y} \cdot k^{C}_{Diesel,y} \cdot 44/12, \quad \text{(Equation 10),}$$

where:

$FC_{PJ,Diesel,y}$ - Amount of diesel fuel consumed as a result of the project activity in period *y*, t;

$NCV_{Diesel,y}$ - Net calorific value of diesel fuel, TJ/kt;

$OXID_{Diesel,y}$ - Carbon oxidation factor of diesel fuel in period *y*, ratio;

$k^{C}_{Diesel,y}$ - Carbon content of diesel fuel in period *y*, t C/TJ;

44/12 - Ration between molecular mass of CO_2 and C. Reflect oxidation of C to CO_2.

The detailed algorithms and formulae for estimating emissions in the baseline scenario of the project are described under sections B.1 and D.1. of the PDD. The details of the calculation are provided in the GHG emission reductions calculation spreadsheet in Excel format.

It was assessed by the desk review of submitted documentation, especially GHG emission reductions calculation spreadsheet in Excel format that key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account. Data sources used for calculating the estimates referred above are clearly identified, reliable and transparent. Emission factors used for calculating the estimates referred to above, were selected by carefully balancing accuracy and reasonableness, and the choice is appropriately justified. The estimation referred to above is based on conservative assumptions and the most plausible scenarios in a transparent manner. The estimates of emission reductions are consistent throughout the PDD. The annual average of estimated emission reductions over the crediting period is calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period, and multiplying by twelve.

According to the PDD and GHG emission reductions calculation spreadsheet in Excel format the emissions for the project scenario, emissions for the baseline scenario and emission reductions are provided in Tables 9,10,11 below.

Table 9 – Estimated emission reductions generated by the project over the part of crediting period before the first commitment period of the Kyoto Protocol

Period:	**N/A**
Emissions for the project scenario, tCO_2e	**0**
Leakage, tCO_2e	**0**
Emissions for the baseline scenario, tCO_2e	**0**
Emission reductions, tCO_2e	**0**
Annual average of estimated emission reductions, tCO_2e	**0**

There are no emission reductions during the part of the crediting period before the first commitment period under the Kyoto Protocol.

Table 10 – Estimated emission reductions generated by the project over the part of crediting period within the first commitment period of the Kyoto Protocol

Period:	**01/06/2009 – 31/12/2012**
Emissions for the project scenario, tCO_2e	**13 504**
Leakage, tCO_2e	**-478 931**
Emissions for the baseline scenario, tCO_2e	**1 581 054**
Emission reductions, tCO_2e	**2 046 481**
Annual average of estimated emission reductions, tCO_2e	**571 111**

Table 11 – Estimated emission reductions generated by the project over the part of the crediting period after the end of the first commitment period of the Kyoto Protocol

Period:	**01/01/2013 – 31/12/2013**
Emissions for the project scenario, tCO_2e	**3 255**
Leakage, tCO_2e	**-109 023**
Emissions for the baseline scenario, tCO_2e	**362 530**
Emission reductions, tCO_2e	**468 298**
Annual average of estimated emission reductions, tCO_2e	**468 298**

Identified problem areas for calculation of GHG emission reductions, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.10 Environmental impacts

In accordance with paragraph 48 of the DVM the assessment of this area focuses on checking the completeness and correctness of the provided information on the assessment of the environmental impacts of the JI project.

The host Party for the project is Ukraine.

The Host Party for this project is Ukraine. Environmental Impact Assessment (EIA) is the part of the Ukrainian project planning and permitting procedures. Implementation regulations for EIA are included

in the Ukrainian State Construction Standard DBN A.2.2.-1-2003[15] (Title: "Structure and Contents of the Environmental Impact Assessment Report (EIR) for Designing and Construction of Production Facilities, Buildings and Structures").

In Annex E of this standard there is a list of "types of projects or activities that are of high environmental hazard" for which full-scale EIA is obligatory, Ministry of Environment and Natural Resources of Ukraine is competent authority for performing of it. Project activities that consist of utilization of wastes of coal industry and of coal production are included in this list.

Comprehensive EIA according to the legislation of Ukraine was performed for the proposed project in 2007 by Scientific Research Production and Commercial Firm "CER "Eko-Tera Ukraine" LLC. Here are some general conclusions of this EIA:

- The main impact of the project activity on the environment is the impact on air. Additional amount of coal dust and dust of coal concentrate will be released to the atmosphere as a result the project activity. However, the study of emission levels and pollutant distribution schemes show that during the project lifetime maximum concentration boundaries will not be exceeded. Fugitive emissions of dust and hazardous substances from the waste heap can also be avoided;
- Impact on water is insignificant. During the project activity water will be used in a closed cycle without draining wastewater. For replenishment of water cycle drainage water from a nearby mine will be used. Thus discharge of this water (treated with chlorine) into the environment will be reduced;
- Impact on flora and fauna is mixed. As a result of the project activity the existing landscape will change, but the aggregate final effect is positive. Grass and trees will be planted on the recultivated land. Rare or endangered species will avoid impact. Place of the project activity implementation is not located near national parks or areas that are protected;
- Noise impact is limited. The main source of noise will be at the minimum desired distance from residential areas, mobile sources as for noise (traffic) provisions of local standards will be met;
- Impact on land use is positive. Considerable areas of land will be exempt from waste heaps and available for building;
- There are no transboundary effects. There are no impacts which occur on the territory of any other country, and which are caused by the implementation of this project that is physically located entirely within Ukraine.

[15] *State Construction Standard DBN A.2.2.-1-2003: "Structure and Contents of the Environmental Impact Assessment Report (EIR) for Designing and Construction of Production Facilities, Buildings and Structures"* State Committee Of Ukraine On Construction And Architecture, 2004.

Comprehensive EIA was performed in 2007 by Scientific Research Production and Commercial Firm "CER "Eko-Tera Ukraine" LLC. This study was focused on the impact of waste heaps dismantling on the environment. Conclusions of the report are above in section F.1. Project impact on the environment is not significant and harmful. According to Ukrainian laws and regulations, preparation of reports from Environmental Impact Assessment and positive conclusions of State Department of Ecology and Natural Resources makes procedure of environmental impact assessment.

The evidence documents of environmental impacts were provided by project participants to the determination team as supporting documents (please refer to evidence documents # /53/ in Table 2 – Documents reviewed during the determination in section 3.1. of the Determination Report).

Identified problem areas for environmental impacts, project participants' responses and conclusions of TÜV Rheinland (China) Ltd. (TÜV Rheinland) are described in Annex A to the Determination report.

4.11 Stakeholder consultation

In accordance with paragraph 49 of the DVM the assessment of this area focuses on checking if stakeholder consultation was undertaken in accordance with procedures as required by the host Party.

The host Party for the project is Ukraine.

No stakeholder consultation process for the JI projects is required by the Host Party. Stakeholder comments will be collected during the time of this PDD publication in the internet during the determination procedure. As a part of EIA, stakeholders must be informed via mass media about the proposed project as provided in *State construction standards of Ukraine DBN A.2.2.-1-2003: "Structure and Contents of the Environmental Impact Assessment (EIA) materials during design and construction of enterprises, buildings and structures"* issued by State Committee of Construction and Architecture in 2004. In accordance with the mentioned regulations, the relevant information was published in the local newspaper "Krasnodonskye vesti" (Krasnodon) # 66 (512) dated March 15, 2007 and # 78 (536) dated June 15, 2007. No comments were received.

The evidence documents related to the stakeholder consultation were provided by project participants to the determination team as supporting documents (please refer to evidence documents # /68/ in Table 2, section 3.1. of the Determination Report).

Identified problem areas for comments by local stakeholders, project participants' responses and conclusions of TÜV Rheinland (China) Ltd.

(TÜV Rheinland) are described in Annex A to the Determination report.

4.12 Other areas

In accordance with paragraphs 50 - 73 of the DVM the assessment of the areas such as additional elements for assessment in determination regarding large scale projects, determination regarding land use, land-use change and forestry projects, determination regarding programmes of activities is not applicable to this JI project.

5 SUMMARY OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES

According to paragraph 32 of the JI Guidelines, the AIE shall make the project design document publicly available through the secretariat, subject to confidentiality provisions set out in paragraph 40 of the JI Guidelines, and receive comments from Parties, stakeholders and UNFCCC accredited observers on the project design document and any supporting information for 30 days from the date the project design document is made publicly available.

TÜV Rheinland (China) Ltd. (TÜV Rheinland) published the project design document (version 1.0 dated 09/10/2012) on page (*http://www.tuv.com.ua/content/view/75/79/*) from 12/10/2012 and invited comments by Parties, stakeholders and UNFCCC accredited observers till 12/11/2012.

There were no comments from Parties, stakeholders and UNFCCC accredited observers received.

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Annex A: Determination protocol of the Joint Implementation Large Scale Project

Table 1 Mandatory Requirement for Joint Implementation (JI) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/comment
1. The project shall have the approval of the Parties involved.	Kyoto Protocol Article 6.1 (a)	Unresolved issue **FAR 01**	Table 2, Section A.5. The project has been officially presented for endorsement to the State Environmental Investment Agency of Ukraine. According to the legislation of Estonia, no LoE is needed. After AIE completes the determination report, the PDD and the Determination Report will be presented to the State Environmental Investment Agency of Ukraine to obtain a Letter of Approval from Ukraine. Letter of Approval from Estonia will be received after the publication of the PDD on the JISC website. The project does not have an approval of the host Party and an investor country. Verifiers note: JISC Glossary of joint implementation terms, version 02 defines the following: a) At least the written project approval(s) by the host Party(ies) should be provided to the AIE and made available to the secretariat by the AIE when submitting the determination report regarding the PDD for publication in accordance with paragraph 34 of the JI guidelines;

			b) At least one written project approval by a Party involved in the JI project, other than the host Party(ies), should be provided to the AIE and made available to the secretariat by the AIE when submitting the first verification report for publication in accordance with paragraph 38 of the JI guidelines, at the latest. For receiving Letter of Approval the final Determination Report shall be submitted to State Environmental Investment Agency of Ukraine, including with Determination Protocol and the list of reference information. Letter of Approval from Estonia as from investor country at this stage of the project is not received. **FAR 01.** The project has no written project approvals by Parties involved.
2. Is the aim of the project formulated, and is this formulation accompanied by brief (no more than 1-2 pages) summarized explanation: a) situation existing before the start date of the project; b) baseline scenario and c) project scenario (its expected results, including with its technical summary)?	Kyoto Protocol Article 6.1 (b)	OK	*Baseline scenario* Of the proposed project suggests that, in practice, neglecting measures on extinction of waste heaps will be continued, and they will burn and will lead to greenhouse gas (GHG) emissions in the atmosphere for as long as all coal will not burn in it. *Project scenario* involves extraction of coal from waste heap that will

			allow preventing greenhouse gas (GHG) emissions in the atmosphere, which would occur in case of spontaneous combustion, and will also allow producing additional amount of coal instead of its extraction by mining method.
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)	OK	Article 5 requires: "Each Party included in Annex I shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases". According to the Article 7: "Annex I Parties to submit annual greenhouse gas inventories, as well as national communications, at regular intervals, both including supplementary information to demonstrate compliance with the Protocol".
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3.	Kyoto Protocol Article 6.1 (d)	OK	Please refer to Table 2, Section B.2.
5. Parties participating in joint implementation designate national control entity for approving JI projects and have in place national rules and procedures for the approval of JI projects.	Marrakech Accord, JI Modalities, §20	OK	Ukraine has designated its control entity. National rules and procedures for approving JI projects have been published. Contact data in Ukraine: State Environmental Investment Agency of Ukraine

			35 Urytskogo Str., Kyiv, P.O. 03035, Ukraine Phone: +380 44 594 91 11 Fax: +380 44 5949115 National rules and procedures for the approval of JI projects are on the site www.neia.gov.ua. On February 22, 2006 the Cabinet of Ministers of Ukraine adopted the Regulation № 206, which established assessment and implementation procedures of JI projects within the Kyoto Protocol.
6. The host Party shall be a Party to the Kyoto Protocol.	Marrakech Accord, JI Modalities, §21(a)/24	OK	The Ukraine is a Party (Annex I Party) to the Kyoto Protocol and has ratified the Kyoto Protocol at February 4th, 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 Accord, JI Modalities, §21(b)/24	OK	The arranged extent for Ukraine is 100% of its emissions by 1990. In the Initial Report (Ukraine's Initial Report Under Article 7, Paragraph 4, Of The Kyoto Protocol) submitted by Ukraine to the UNFCCC Secretariat, on the 26 May 2006 the AAUs are quantified with: 925 362 174.39 (x 5) = 4 626 810 872 tCO_2e http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/ukraine_aa_report.pdf Currently Ukraine has submitted to

			the UNFCCC its fifth national communication on climate change under the Kyoto Protocol.
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4.	Marrakech Accord, JI Modalities, §21(d)/24	OK	The designed system of the national registry has been described in the Initial Report: http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/ukraine_aa_report.pdf
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination.	Marrakech Accord, JI Modalities, §31	OK	Project participant – "AGS-2008" LLC – submitted to the Accredited Independent Entity – TÜV Rheinland Group/TÜV Rheinland Ukraine – PDD that contains all information needed for the determination.
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 Accord, JI Modalities, §32	OK	PDD was published on the website http://www.tuv.com.ua from August 4 to October 3, 2012
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 Accord, JI Modalities, §33(d)	OK	Please refer to Table 2, section F.
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 Accord, JI Modalities, Appendix B	OK	Please refer to 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 Accord, JI Modalities, Appendix B	OK	Please refer to Table 2, section B.

14. The baseline methodology shall exclude to earn ERUs for decreases in activity levels outside the project activity or due to force majeure.	Marrakech Accord, JI Modalities, Appendix B	OK	Please refer to Table 2, section B.
15. The project shall have an appropriate monitoring plan.	Marrakech Accord, JI Modalities, §33(c)	OK	Please refer to Table 2, section D.
16.A project participant is a legal entity authorized by a Party involved to participate in the JI project.	“Glossary of Joint Implementation Terms”, Version 02.	OK	Please refer to Table 2, section A. Project participant from Ukraine will be authorized by the Host Party through receiving project approval.

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					
1.1. Is the title of the project activity presented?	PDD	DR	"Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere".	OK	OK
1.2. Is (are) the sectoral scope(s) to which the project pertains presented?	PDD	DR	Sectoral scope: 8 - Mining/mineral production **CAR 01.** PDD should contain the contact information of the entity - the owner of the source where JI project implementation is planned, including: object's EDRPOU code (Uniform State Register of Enterprises and Organizations of Ukraine) and title of KVED type of economic activities (Code of economic activities according to the general classification of economic activities). Please provide the relevant information.	**CAR 01**	OK
1.3. Are the version number and date of the document presented?	PDD	DR	Yes, the version number of the document and the date are presented as: 1.0 Date of the PDD: November 9, 2012. Final PDD Version of after re-submission: 2.0 Date of the PDD : November 20, 2012.	OK	OK

A.2. Description of the project					
2.1. Is the purpose of the project indicated (with the concise, summarizing explanation of the situation existing prior to the starting date of the project, baseline scenario and project scenario)?	PDD	DR	Thus, this section includes brief summary of the project: *Project purpose:* Purpose of the proposed project is dismantling and processing waste heaps by extracting thermal coal from carbonaceous rock, thus avoiding carbon dioxide emissions into the atmosphere from burning carbon component. The project is ecological and is aimed at improving the environmental situation in the region by preventing self-heating and self-ignition of waste heaps, formed by coal mines. *Situation in the baseline :* Baseline scenario assumes that the problem of waste heaps combustion will not be effectively resolved, carbonaceous rock of waste heaps will undergo self-ignition and burn until all volume of coal contained in it does not burn. Continuation of existing situation will lead to large emissions of greenhouse gases in the atmosphere and to the general pollution of the ecosystem of the region. In addition, the baseline scenario assumes coal extraction by mining method that leads to fugitive methane emissions during extraction and carbon dioxide emissions for electricity consumption from the power grid of Ukraine.	OK	OK

			Project scenario: This JI project is implemented on the territory of settlement Verhnyoherasymivska Village Council, Krasnodonskiy District of Lugansk region of Ukraine. Project boundaries include waste heaps #1, #2, #3, formed by the mine "Krasnodarska", and also enrichment complex, located close to the waste heap #1. The project "Carbonaceous rock processing and concentrating with the aim of reducing greenhouse gas emissions into the atmosphere" involves the introduction of complex of measures aimed at waste heaps dismantling with the aim of black coal extraction, which will partially replace coal that would otherwise be extracted by mining method, which would in turn lead to fugitive emissions of methane and carbon dioxide by electricity consumption.		
2.2. Is the history of the Project including its JI component summarized?	PDD	DR	Yes, the history of the project including its JI component is summarized in section A.2. of the PDD. **CL 01.** During site visit, it was explained that PP first sets in motion a simple process in which coal and ash are sorted only by size and are sold together. Please add to Section A.2 of the PDD description of the situation, which was before the starting date, and also before the history of the project. It should also be noted in Section B.1 as an alternative to the baseline.	**CL 01**	OK

2.1.1. Is it clarified how the proposed project activity reduces emissions GHG that would occur in the baseline scenario?	PDD	DR	Yes, thermal coal will be produced under the project for the needs of thermal power and households. Technical characteristics of complex for processing waste heap will allow extracting additional amount of coal that will replace coal produced in coal mines, extraction of which would resulted in fugitive methane emissions, as well as CO_2 emissions from electricity consumption.	OK	OK
A.3. Project participants					
3.1. Are project participants and Party (ies) involved in the project listed?	PDD	DR	Section A.3 Table 1 of the PDD names two project participants: - Limited Liability Company "AGS-2008" and - "ProEffect OÜ"	OK	OK
3.2. Is contact information provided in Annex 1 of the PDD that is indicated in section A.3?	PDD	DR	The contact information of project participants is provided in Annex 1 of the PDD.	OK	OK
3.3. Is it indicated, if the Party involved is a Host Party?	PDD	DR	Ukraine is indicated as a Host Party.	OK	OK
3.4. Is it indicated, if it is the case, if the Party involved wishes to be considered as a project participant?	PDD	DR	Parties involved don't wish to be considered project participants.	OK	OK
A.4. Technical description of the project					
A.4.1. Location of the project					
4.1.1. Host Party(ies)	PDD	DR	Ukraine	OK	OK
4.1.2. Region/State/Province etc.	PDD	DR	Lugansk region	OK	OK
4.1.3. City/Town/Community etc.	PDD	DR	See section A 4.1.4.	OK	OK
4.1.4. Detail of the physical location, including information allowing the unique identification of the project (maximum one page)					

4.1.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s) (this section should not exceed one page)?	PDD	DR	Detailed information is presented in Section A.4.1.4. **CAR 02.** Please bring Section A.2 in line with "Guidelines for users, Form of documents of Joint Implementation Project Development Document", version 04. Section shall not exceed one page. **CAR 03.** Please provide satellite photo of objects location in the project in Section A.4.1.4.	**CAR 02** **CAR 03**	OK
A.4.2. Technology(ies) to be employed, or measures, operations or actions to be implemented by the project					
4.2.1. Are the technology (ies) to be employed, or measures, operations or actions to be implemented by the project described?	PDD	DR	Please see the detailed description in Section A.4.2 of the PDD.	OK	OK
4.2.1.1. Does the project design engineering reflect current good practices?	PDD	DR	**CL 02.** Please provide information on whether the project design engineering reflects current good practices. **CL 03**. Please provide an explanation if weather conditions are affecting the level of coal production under the project. **CAR 04.** Please provide technological scheme of concentrating complex, which includes the main technological equipment,	**CL 02.** **CL 03.** **CAR 04.**	OK

			and provide list of this equipment.		
4.2.1.2. 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?	PDD	DR	Installation for the enrichment with severe environment provides a very efficient separation process. It is perfect for complicated separation and purification of coal for domestic and industrial use. Overall, this process differs from other processes with use of water because it creates an environment using magnetite (fine particles of iron) instead of small particles in the raw material. This allows more efficient control of the process and increase of the separation range by the relative density.	OK	OK
4.2.1.3. Are technologies, measures, operations or actions to be applied within the project, including all relevant technical data and plan of their installation described?			Description of applicable project equipment with the provision of technical specifications as well as implementation stages are given in Section A.4.2. **CAR 05.** Please indicate the specific consumption of electricity per 1 ton of thermal coal extracted from waste heaps. **CAR 06.** Productivity of heavy environment	**CL 04** **CAR 05** **CAR 06**	

			hydrocyclone has no measuring units. Please identify this parameter. **CL 04.** Please provide information on the coal content in +50mm fraction and its further application.		
4.2.1.4. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	Technology, used in this project, is modern, and there is no probability that it will be replaced by any other technology during project life cycle.	OK	OK
4.2.2. Are all relevant technical data and the implementation schedule indicated?	PDD	DR	Yes. Please see Section A.4.2. of the PDD. **CAR 07.** Please specify in Section A.2. the appropriate order of the Director of "AGS-2008" LLC, which regulates the starting date of the JI project . **CAR 08.** Please include clear and complete information in Section A.2 concerning the weighing of coal production and logistics. **CAR 09**. Please bring tables 4-5 of the PDD in accordance with the Guidelines. **CAR 10.** Please indicate when Letter of Approval from the second Party of the project – Estonia – will be received. **CAR 11.** Please correct the numbering of tables throughout PDD. **CL 05.** During the site visit it was indicated that there is a possibility of	**CAR 07** **CAR 08** **CAR 09** **CAR 10** **CAR 11** **CL 05**	OK

			processing material from additional as of yet unidentified waste heaps at the four processing facilities. This needs to be clearly stated in the PDD.		
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					
4.3.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page).	PDD	DR	Coal extracted from the waste heap will replace coal, which is extracted by mining method, and will be used to generate electricity at TPPs. Also, electricity consumption from power grid of Ukraine will decrease at the expense of more economical method of coal mining, which involves project, compared to the mining method. Another positive factor for the implementation of this project is the reduction of fugitive methane emissions during extraction of coal in coal mines. Amount of generated emission reduction units can be sold on the international trading market of emission reductions. Emission reductions resulting from this project will come from three main sources: • Elimination of carbon dioxide emissions sources from combustion of waste heap by extraction of thermal coal from it; • Reduction of the fugitive methane emissions volume related to coal mining by substitution of amount of such coal to the coal that is produced from the waste	OK	OK

			heaps as a result of the project activity; • Reducing electricity consumption from the grid during recultivation of the waste heaps in comparison with energy consumption during coal production in the mine.		
A.4.3.1. Estimated amount of emission reductions over the crediting period					
4.3.1.1. Is it provided the estimated annual reduction for the chosen credit period in tCO_2e?	PDD	DR	Yes. Section A.4.3.1. of the PDD provides the tables indicating estimated annual reduction for the chosen credit period in tCO_2e. Annual average of estimated emission reductions over the crediting period is 322 933 tones of CO_2 equivalent.	OK	OK
A.5. Project approval by the Parties involved					
5.1. Are written project approvals by the Parties involved attached? Are they unconditional?	PDD	DR	According to the national Ukrainian procedure Letter of Approval from Ukraine is expected after passing determination of the project	OK	OK
B. Baseline					
B.1 Description and justification of the baseline chosen					
1.1. Is it indicated in PDD: - a detailed theoretical description of the baseline in a complete and transparent manner, as well as a justification of chosen baseline using the step-wise approach;; - a justification of baseline setting; - references on regulations according to baseline setting.	PDD	DR	Yes, there is the description of the baseline chosen. To establish baseline specific approach to JI projects is used. Justification of the chosen baseline and detailed theoretical description are in Section B.1. of the PDD.	OK	OK
1.2. Is it indicated in the PDD that baseline was established :					

	1.2.1. by listing and describing plausible (alternative) future scenarios on the basis of conservative assumptions and selecting the most plausible one?	PDD	DR, I	Plausible future scenarios are listed and described on the basis of conservative assumptions and selecting the most plausible one in the context of this project. All scenarios, except continuation of existing situation, face prohibitive barriers. Therefore, continuation of existing situation is the most plausible future scenario and is the baseline scenario. Analysis of the barriers is given in Section 4.2	OK	OK
	1.2.2. taking into account valid political demands and circumstances present at the national and (or) sectoral levels?	PDD	DR	Taking into account valid political demands and circumstances. Key factors influencing the baseline are taken into account. **CAR 12.** Please provide complete information on key parameters used to establish the baseline.	**CAR 12**	OK
	1.2.3. in a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors?	PDD	DR	JI specific approach is used for baseline setting. The baseline was identified by listing and analysing plausible future scenarios on the basis of conservative assumptions and choosing the most probable of them.	OK	OK
	1.2.4. 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?	PDD	DR	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. It is demonstrated by the above analysis that the baseline chosen clearly represents the most probable future scenario given the circumstances of modern day Donbas coal	**CAR 13**	OK

			sector. **CAR 13.** Please correct the reference to the information, which is specified in Table 17 of the PDD.		
1.2.5. in such a way that emission reduction units (ERUs) cannot be earned for decreases in activity levels outside the project activity or due to force majeure?	PDD	DR	ERUs cannot be obtained by reducing the activity outside the project or force majeure circumstances.	OK	OK
1.2.6. taking account of uncertainties and using conservative assumptions.	PDD	DR	Baseline was established taking into account uncertainties and using conservative assumptions. **CAR 14.** Please specify appropriate data source that will be used in case of inaccessibility of data on average ash content and water content of coal extracted from the waste heaps.	**CAR 14**	OK
1.3. Does the PDD explicitly indicate the approach used for identifying the baseline with references on regulations?	PDD	DR	JI specific approach is used for baseline setting.	OK	OK
1.4. Are number, name and version of the methodology clearly indicated in the context of the project?	PDD	DR	Not applicable	OK	OK
1.5. Is the applied version of the CDM methodology the most recent one and/or is this version still applicable?	PDD	DR	For determination of leakage in the baseline scenario elements of CDM methodology ACM0009 were used which are consistent with Section B.1 of this protocol.	OK	OK
1.6 Is it described how the chosen approach is applied in the context of the project?	PDD	DR	JI specific approach applied in the context of the project is completely and clearly described in Section B.1. of the PDD.	OK	OK

1.7. Are the key information and data used to establish the baseline (variables, parameters, data sources etc.) indicated in tabular form?	PDD	DR	Yes, the necessary information in tabular form is provided in section B.1. of the PDD. **CL 06.** Please explain the value used in the monitoring plan for the Carbon Oxidation Factor of coal (*OXID coal*).	**CL 06**	OK
1.8. Are all regulations and sources clearly referenced?	PDD	DR	Yes. All regulations and sources clearly referenced.	OK	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					
2.1. Is the step-wise approach used for the demonstration of project additionality indicated and described?	PDD	DR	Step-wise approach is used for this project in order to demonstrate that the project provides a reduction of emissions from sources that are additional to any reductions that would occur in the absence of the project. Besides, comparable project is considered to be the final according to JISC that confirms that the project, according to the documentation, is transparent and rational, and also meets the stated requirements and identified criteria and is aimed at generating emission reduction units (ERUs). More detailed description of comparability is given in Section 4.2: http://ji.unfccc.int/UserManagement/FileStorage/P21NS8K075WULAO9GHFER3TI6M4YBD	OK	OK
2.2. Does the PDD provide a justification of the applicability of the approach with a clear and transparent description with relevant reference on regulations?	PDD	DR	PDD contains justification for the applicability of this approach in accordance with paragraph 44 (b) of Annex 1 of Guidance.	OK	OK

			Please see Section 2.0 of the PDD.		
2.3. Is it described how the chosen approach is applied in the context of the project?	PDD	DR	Yes, section B.2. of the PDD provided the description how the chosen approach is applied in the context of the project.	OK	OK
2.4. Are additionality proofs provided?					
2.4.1. If the application of the most recent version of the "Tool for the demonstration and assessment of additionality" is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	PDD	DR	Yes, section B.2. of the PDD includes all explanations, descriptions and analyzes. **CL 07.** According to section B.2 the project has similar technology and similar scale as a comparable project already positively determined by an AIE. The demonstration of similar technology needs to include a discussion of the respective separation technologies used. The demonstration of similar scale needs to include a discussion of the respective capacities of the processing plants.	**CL 07**	OK
2.4.2. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?	PDD	DR	Detailed analysis provided in sections A.4.3., B.1. and B.2. of the PDD demonstrates that emissions in the baseline scenario would likely exceed the emissions in the project scenario by the implementation of project activities.	OK	OK
2.4.3. Is it demonstrated that the project activity itself is not a likely baseline scenario?	PDD	DR	Yes, it is clearly demonstrated scenario in sections A.2., B.1. and B.2. of the PDD that the project activity itself is not a likely baseline.	OK	OK
2.5. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	PDD	DR	Baseline is set by taking into account relevant national policies and circumstances (please refer to sections B.1. and B.2. of the PDD). None of listed in section B.1. alternatives do not contradict Ukrainian	OK	OK

			legislation.		
B.3. Description of how the definition of the project boundary is applied to the project					
3.1. Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: - under the control of the project participants; - reasonably attributable to the project; - significant?	PDD	DR	Project boundaries identified in the PDD include all GHG anthropogenic emissions by their sources that: - are controlled by the project participants, and as emissions from consumption of electricity and diesel fuel during processing waste heap - are reasonably attributed to the project, such as CO_2 emissions as a result of waste heaps burning, methane leakage as a result of coal mining, emissions as a result of electricity consumption during coal production in mines - are essential, as it is shown above **CL 08.** During the project implementation large number of rock mass containing certain percentage of carbon is processed. Please provide justification that enrichment wastes do not affect the level of emissions in the project scenario. Also, please justify that methane emissions from enriched coal that is stored at the factory are neglected. **CAR 15.** In the section of description of leakages calculation of CO2 emissions factor from electricity consumption is indicated incorrectly. Please provide the	**CAR 15** **CAR 16** **CAR 17** **CL 08** **CL 09**	OK

			appropriate correction. **CAR 16.** Description of the parameters used in the calculations of emission reductions under the project do not have univocal interpretation throughout the text of the PDD. Please make the necessary corrections. **CAR 17.** Please correct the reference to the project JI 0144. **CL 09.** Please provide an explanation, how the project boundaries are established and give an appropriate source.		
3.2. Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 3.1? above?	PDD	DR	Some sources have been excluded from the project boundaries based on the assessment of individual cases and taking into account the criteria provided in Section 3.1.	OK	OK
3.3. 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?	PDD	DR	Project boundaries and emission sources of relevant gases are indicated in section B.3. of the PDD as figure 9-10.	OK	OK
3.4. Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	PDD	DR	Yes, there is justification of the exclusion of sources.	OK	OK
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline					
4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?			Date of completion of the baseline study: 09/11/2012	OK	OK

4.2. Is the contact information of persons setting the baseline provided?			Baseline is set by "AGS-2008" LLC. Contact information is provided in Section B.4. of the PDD.	OK	OK
4.3. Is the person/entity also a project participant listed in Annex 1 of PDD?	PDD	DR	"AGS-2008" LLC is listed as a project participant in Annex 1.	OK	OK
C. Duration of the project /crediting period					
C.1. Starting date of the project					
1.1. Is the project's starting date clearly defined?	PDD	DR	The project's starting date is clearly defined in section C.1. of the PDD – 10/03/2008.	OK	OK
1.2. 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?	PDD	DR	No. The starting date of the project is date, when order on implementation of JI project under the Kyoto Protocol was signed. After this decision real actions aimed at implementing the proposed project began.	OK	OK
1.3. Is the starting date after the beginning of 2000?	PDD	DR	Yes. The starting date is after the beginning of 2000.	OK	OK
C.2. Expected operational lifetime of the project					
2.1. Is the project's operational lifetime clearly defined in years and months?	PDD	DR	The implemented measures provided proper maintenance could be operational at least 4 years and 7 months. **CAR 18**. Please specify the reason under which the operating life cycle of the project will last until 31/12/2013. And also provide the appropriate document confirming operational term for concentrating equipment.	**CAR 18**	OK
C.3. Length of the crediting period					
3.1. Is the length of the crediting period specified in years and months?	PDD	DR	3 years and 7 months or 43 months. From 01/06/2009 to 31/12/2012.	OK	OK

3.2. Are estimated values of emission reductions or enhancements of net removals indicated separately for the period up to 2012 and the period after 2012?	PDD	DR	Yes, estimated values of emission reductions or enhancements of removals are listed separately for the period up to 2012 and period after 2012.	OK	OK
3.3. 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?	PDD	DR	Yes, it is indicated in Section C.3. of the PDD that lengthening of the crediting period can take place with the agreement of the Host party. Duration of implementation of the project activity ends on 31/12/2012.	OK	OK
D. Monitoring plan					
D.1. Description of monitoring plan chosen					
1.1. Is it indicated in PDD a detailed theoretical description in a complete and transparent manner, as well as a justification of chosen monitoring plan using the step-wise approach?	PDD	DR	The justification of chosen monitoring plan is sufficient, its theoretical description is indicated in Section D.1. of the PDD.	OK	OK
1.2. Does the PDD explicitly indicate the chosen approach used for monitoring with references on regulations?	PDD	DR	The project participant has chosen the JI specific approaches regarding monitoring according to "Guidance on criteria for baseline setting and monitoring", version 03.	OK	OK
1.3. Is the applied methodology considered being the most appropriate one?	PDD	DR	Yes, the chosen JI specific approach is relevant for this project.	OK	OK
1.4. If national or international monitoring standard has to be applied to monitor certain aspects of the project, is this standard identified and is the reference as to where a detailed description of the standard can be found provided?	PDD	DR	Yes, all relevant references are listed in Section D of the PDD.	OK	OK
1.5. Are the description of the assumptions, formulae, parameters, data sources and key factors indicated?	PDD	DR	Yes, it is in Section D.1. of the PDD. **CAR 19.** Please provide valid DSTU to determine the density of diesel fuel, and also justify its applicability. The given DSTU is invalid.	**CAR 19** **CAR 20** **CL 10**	OK

			CAR 20. Please provide more precise reference to the average electricity consumption per ton of extracted coal in Ukraine. **CL 10.** Please provide explanations on how to use the coefficient of fugitive methane emissions from extracting coal from the mines from National Greenhouse Gas Inventory for 1999-2009.		
1.5.1. Is it stated how uncertainties are taken into account and conservativeness is safeguarded?	PDD	DR	Yes, it is indicated in Section D.1. of the PDD.	OK	OK
1.6. Is it described how the chosen approach is applied in the context of the project?	PDD	DR	Monitoring for the projects will be assessed using option (a) of Annex 2 of "Guidance on criteria for baseline setting and monitoring", version 03.	OK	OK
1.7 Is justification that used procedure is consistent with standard technical procedures used in the respective fields, given?	PDD	DR	Yes, the appropriate justification is given. **CAR 21.** Please provide justification that the used procedure is consistent with the standard procedures used in the relevant field with reference to determined PDD, where such procedure was used. **CL 11.** Please specify if there was any replacement of technical equipment during monitoring period.	**CAR 21** **CAR 11**	OK
1.8. Does the monitoring plan explicitly and clearly distinguish: 1) 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	PDD	DR	All necessary information is clearly and precisely stated in accordance with the "Guidelines for users of the JI PDD", version 04. **CAR 22.** Please describe in more details	**CAR 22** **CAR 23** **CAR 24**	OK

the stage of determination regarding the PDD; 2) 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 regarding the PDD; 3) data and parameters that are monitored throughout the crediting period?			how weighing of extracted coal on automobile scales specified in the monitoring plan occurs. **CAR 23.** Please include information on the certification of Coal Chemistry laboratory that analyzes samples of coal. **CAR 24.** Not all data sources parameters of which are not monitored throughout the crediting period, but are determined only once, are presented in Section B. Please make the appropriate corrections.		
1.9. Are alternative tables used instead of the tables provided in sections D.1.1.1., D.1.1.3., D.1.2.1., D.1.3.1. and D.2. in line with the approach regarding monitoring chosen for all data/parameters?	PDD	DR	Not applicable	OK	OK
1.9.1. Are all the required data/parameters according to the used methodology indicated?			Not applicable	OK	OK
1.9.2. Fill in the required amount of sub checklists for fixed data and comment any line answered with "No" (items may be added depending on the number of data parameters).					
1.10.1. Parameter Title Data Checklist / Yes/No Is the title in line with methodology? Are data unit correctly expressed? Is the appropriate description of parameter indicated? Is the time of monitoring clearly indicated? Is the source clearly referenced? Is the correct value provided?	PDD	DR	Not applicable	OK	OK

Has this value been verified?						
Is the choice of data correctly justified or is the measurement method correctly described?						
Are quality control and quality assurance procedures indicated?						
D.1.1. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario						
1.1.1. Is the option 1 used for monitoring of the emissions in the project scenario and the baseline scenario?		PDD	DR	Monitoring using Option 1 is applied for project scenario and the baseline scenario.	OK	OK
D.1.1.1. Data to be collected in order to monitor emissions from the project, and how these data will be archived						
1.1.1.1. Are the data to be collected in order to monitor emissions from the project described?		PDD	DR	Table D.1.1.1. of the PDD contains the data to be collected for monitoring emissions in the project.	OK	OK
1.1.1.2. Is it indicated how the data will be archived?		PDD	DR	It is indicated how data will be stored in Table D.1.1.1. of the PDD.	OK	OK
1.1.1.3. Is it indicated that data monitored are to be kept for two years after the last transfer of ERUs for the project?		PDD	DR	Documents and other data monitored and required for determination and verification, as well as any other data that are relevant to the operation of the project will be kept for at least two years after the last transfer of ERUs.	OK	OK
D.1.1.2. Description of formulae used to estimate project emissions (for each gas, source etc.; emissions in units of CO_2 equivalent)						
1.1.2.1. Are the formulae clearly and consistently indicated throughout the PDD?		PDD	DR	The formulae are clearly and consistently indicated in section D.1.1.2. of the PDD.	OK	OK
D.1.1.3. 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:						
1.1.3.1. Are the data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary described?		PDD	DR	In Table D.1.1.3. of the PDD there are data to be collected for monitoring emissions in the project.	OK	OK

1.1.3.2. Is it indicated how data will be archived?	PDD	DR	It is indicated in Table D.1.1.3 of the PDD how these data will be stored.	OK	OK
D.1.1.4. Description of formulae used to estimate baseline emissions (for each gas, source etc.; emissions in units of CO2 equivalent)					
1.1.4.1. Are the formulae clearly and consistently indicated throughout the PDD?	PDD	DR	The formulae are clearly and consistently indicated in section D.1.1.4. of the PDD and throughout the PDD.	OK	OK
D.1.2. Option 2 Direct monitoring of emission reductions from the project (values should be consistent with those in section E)					
1.2.1. Is the option 2 used for monitoring of the emissions in the project scenario and the baseline scenario?	PDD	DR	This option is used to monitor emission reductions received due to sub-projects of Group 3.	OK	OK
D.1.2.1. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived:					
1.2.1.1. Are the data to be collected in order to monitor emissions from the project described?	PDD	DR	Data that should be collected for monitoring emissions under the project is indicated in Table D.1.2.1. of the PDD.	OK	OK
1.2.1.2. Is it indicated how the data will be archived?	PDD	DR	It is indicated in Table D.1.2.1. PDD how these data will be stored.	OK	OK
1.2.1.3. Is it indicated that data monitored are to be kept for two years after the last transfer of ERUs for the project?	PDD	DR	Please see Section D.1 "Archiving, storage and procedure of documentation turnover"	OK	OK
D.1.2.2. Description of formulae used to calculate emission reductions from the project (for each gas, source etc.; emissions/emission reductions in units of CO_2 equivalent)					
1.2.2.1. Are the formulae clearly and consistently indicated throughout the PDD?	PDD	DR	The formulae are clearly and consistently indicated in the PDD.	OK	OK
D.1.3. Treatment of leakage in the monitoring plan					
1.3.1. Are data and information that will be collected in order to monitor leakage effects of the project described, if applicable?	PDD	DR	Fugitive methane emissions resulting from coal extraction from mines in Ukraine are considered to be leakage. Data that should be collected to monitor leakage under the project is indicated in	**CAR 25**	OK

			Table D.1.3.1. of the PDD. **CAR 25.** Please add in Section D.1.3.1 indirect CO_2 emissions factor, which is used in the calculation of leakage.		
1.3.2. Are formulae used to estimate leakage (for each gas, source etc.; emissions in units of CO_2 equivalent) described?	PDD	DR	These formulae are clearly and consistently indicated in Section D.1.3.2. of the PDD and throughout the PDD.	OK	OK
D.1.4. Description of formulae used to estimate emission reductions for the project (for each gas, source etc.; emissions/emission reductions in units of CO_2 equivalent):					
1.4.1. Are the formulae clearly and consistently indicated throughout the PDD?	PDD	DR	Description of formulae is clearly and consistently indicated in Section D.1.4. of the PDD.	OK	OK
D.1.4. Where applicable, in accordance with procedures as required by the host Party, information on the collection and archiving of information on the environmental impacts of the project:					
1.4.1. Is information on the collection and archiving of information on the environmental impacts of the project?	PDD	DR	Collection and archiving of the information on the environmental impacts of the project will be done based on the approved EIA in accordance with the Host Party legislation.	OK	OK
1.4.2. Is reference to the relevant host Party regulation(s) provided?	PDD	DR	All references presented in Section F.1	OK	OK
1.4.3. If not applicable is it stated so?	PDD	DR	-	OK	OK
D.2. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored					
2.1. Are the quality assurance and control procedures for the monitoring process established? This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request?	PDD	DR	Quality control and quality assurance procedures undertaken for data monitored are indicated in tabular format in Section D.2. of the PDD. **CAR 26.** Please add information in Table D.2 about all parameters used for calculating GHG emission reductions.	**CAR 26**	OK

2.2. Are data corresponded with those in section D.1?	PDD	DR	Yes. Data are corresponded with those in section D.1 of the PDD.	OK	OK
D.3. Please describe the operational and management structure that the project operator will apply in implementing the monitoring plan					
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?	PDD	DR	The project owner – "AGS-2008", has made all the required actions to implement provisions of this monitoring plan into its organizational and quality management structure. The operational and management structure are presented in section D.3. of the PDD in figure 11. **CAR 27.** Executive and management structures for implementing monitoring plan are presented not in a clear way and do not reflect the complete picture of the interactions between the project owner and contracting companies.	**CAR 27**	OK
3.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	PDD	DR	Yes. All relevant responsibilities and institutional arrangements for data collection and archiving clearly are provided.	OK	OK
3.3. Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type?	PDD	DR	Monitoring plan, on the whole, reflects good monitoring practices appropriate to the project type.	OK	OK
D.4. Name of person(s)/entity(ies) establishing the monitoring plan:					
4.1. Is the contact information of person(s)/entity(ies) establishing the monitoring plan provided?	PDD	DR	Reference to Annex 1 of the PDD is provided.	OK	OK
4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	PDD	DR	Necessary information is given in Section D.4. of the PDD.	OK	OK

E. Estimation of greenhouse gases emission reductions

E.1 Estimated project emissions					
1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due to the project (for each gas, source etc.; emissions in units of CO2 equivalent)?	PDD	DR	Yes, there is such explanation. Formulae used to estimate project emissions (through energy consumption and for fugitive methane emissions from coal extraction in the mines) are described in Section D of the PDD.	OK	OK
1.1.1. Is there a description of calculation of GHG project emissions in accordance with the formula? (supporting documentation)	PDD	DR	The description of calculation of GHG project emissions is provided in EXCEL electronic files as supporting documentation. Calculations are performed according to these formulae. The results of these calculations are presented in Section E.1. of the PDD.	OK	OK
1.1.2. Have conservative assumptions been used to calculate project GHG emissions?	PDD	DR	Yes. Assumptions which were used to calculate project GHG emissions are conservative.	OK	OK
E.2. Estimated leakage					
2.1. Are described the formulae used to estimate leakage due to the project activity where required (for each gas, source etc.; emissions in units of CO_2 equivalent)?	PDD	DR	Yes. There are all formulae explanations in Section D, which were used to estimate leakage caused by the activities under the project.	OK	OK
2.1.1. Is there a description of calculation of leakage in accordance with the formula? (supporting documentation)	PDD	DR	Yes. Explanation of calculating project leakage is given in electronic files EXCEL as supporting documentation. Calculations are performed according to specified formulae. The results of these calculations are presented in Section E.2. of the PDD.	OK	OK
2.2. Have conservative assumptions been used to calculate leakage?	PDD	DR	Yes. Assumptions, which were used to calculate project GHG emissions, are	OK	OK

			conservative and are described in Section B.3 of the PDD.		
2.3. If not applicable, is it stated in the PDD?	PDD	DR	-	OK	OK
E.3 Sum of E.1 and E.2.					
3.1. Does the sum of E.1. and E.2. represent the project activity emissions?	PDD	DR	Yes. The sum of E.1. and E.2. represents the project activity emissions.	OK	OK
E.4. Estimated baseline emissions					
4.1. Are the formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category described (for each gas, source etc.; emissions in units of CO_2 equivalent)?	PDD	DR	Formulae used to estimate baseline emissions, are explained in Section D. of the PDD.	OK	OK
4.1.1. Is there a description of calculation of GHG baseline emissions in accordance with the formula? (supporting documentation)	PDD	DR	Explanation of calculating baseline emissions is given in electronic files EXCEL as supporting documentation. Calculations are performed according to specified formulae. The results of these calculations are presented in Section E.1. of the PDD.	OK	OK
4.2. Have conservative assumptions been used to calculate baseline emissions?	PDD	DR	Yes, they have. Conservative assumptions were used to calculate baseline emissions.	OK	OK
E.5. Difference between E.4. and E.3. representing the emission reductions of the project					
5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the project during a given period?	PDD	DR	Emission reductions achieved due to the project are listed in Section E.6.	OK	OK
E.6. Table providing values obtained when applying formulae above					
6.1. Is the data provided under this section in consistency with data as presented by other chapters E of the PDD?	PDD	DR	The data provided under section E.6. is in consistency with data as presented by other chapters of the PDD.	OK	OK

6.2. Is there a table providing the total value of emission reductions?	PDD	DR	Yes. A table which providing the total value of emission reductions located in section E.	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:					
1.1. Has an analysis of the possible environmental impacts of the project been sufficiently described?	PDD	DR	Yes, please see Section F of the PDD.	OK	OK
1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA)?	PDD	DR	The Host Party for this project is Ukraine. Environmental Impact Assessment (EIA) is the part of the Ukrainian project planning and permitting procedures. Implementation regulations for EIA are included in the Ukrainian State Construction Standard DBN A.2.2.-1-2003. **CAR 28.** Annex of standard DBN A.2.2.-1-2003 is indicated incorrectly. Please correct this mistake.	**CAR 28**	OK
1.3. Are transboundary environmental impacts considered in the analysis?	PDD	DR	Transboundary impacts are not observed. There are no impacts that manifest within the area of any other country and that are caused by a proposed project activity which wholly physically originates within the area of Ukraine.	OK	OK
1.4. Are all regulations and sources clearly referenced?	PDD	DR	Yes. All regulations and sources clearly referenced.		OK
F.2. If environmental impacts are considered significant by the project participants or the host Party, provision of conclusions and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.					

2.1. Is viewpoint regarding significant environmental impacts of the project participants or the host Party indicated?	PDD	DR	Yes, in Section F.2. of the PDD the project participants concluded that the proposed project has a positive impact on the environment.	OK	OK
2.2. Have conclusions and all references to the supporting documentation on the analysis of the environmental impacts been indicated?	PDD	DR	Yes. All references and conclusions to the supporting documentation on the analysis of the environmental impacts have been indicated.	OK	OK
G. Stakeholders' comments					
G.1. Information on stakeholders' comments on the project, as appropriate					
1.1. Have relevant stakeholders been consulted and how?	PDD	DR	No stakeholder consultation process for the JI projects is required by the Host Party. Stakeholder comments will be collected during the time of this PDD publication in the internet during the determination procedure. As a part of EIA, stakeholders must be informed via mass media about the proposed project as provided in *State construction standards of Ukraine DBN A.2.2.-1-2003: "Structure and Contents of the Environmental Impact Assessment (EIA) materials during design and construction of enterprises, buildings and structures"* issued by State Committee of Construction and Architecture in 2004. In accordance with the mentioned regulations, the relevant information was published in the local newspaper "Krasnodonskye vesti" (Krasnodon) # 66 (512) dated March 15, 2007 and # 78 (536) dated June 15, 2007. No comments were received.	OK	OK

1.1.1. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	-	OK	OK
1.2. Is there a list of stakeholders from whom comments on the project have been received?	PDD	DR	-	OK	OK
1.3. Is the nature of comments provided?	PDD	DR	-	OK	OK
1.4. Has due account been taken of any stakeholder comments received?	PDD	DR	-	OK	OK
Annexes					
Annex 1. Contact information on project participants					
1.1. Is the information provided in consistency with the one given under section A.3?	PDD	DR	The information provided in Annex 1 is in a consistency with the one given under Section A.3.	OK	OK
1.2. Are the mandatory fields for each organisation listed in section A.3. of the PDD filled notably organisation, name of contact person, street, city, postal code, country, telephone number(s) and fax number or e-mail address?	PDD	DR	Yes. The mandatory fields for each organization listed in section A.3. of the PDD are filled.	OK	OK
Annex 2. Baseline information					
2.1. Is a table containing the key elements of the baseline (including variables, parameters and data sources) provided?	PDD	DR	Baseline information is provided in Section B of this PDD.	OK	OK
2.2. If additional background information on baseline data is provided: is this information in consistency with data presented by other sections of the PDD?	PDD	DR	There is no additional background information.	OK	OK
Annex 3. Monitoring plan					
3.1. Is the detail description of all key elements of monitoring plan provided?	PDD	DR	All necessary information is presented in Section D of the PDD.	OK	OK

3.2. Is the provided information on monitoring plan in consistency with data presented in section D of the PDD?	PDD	DR	The information on monitoring plan is in a consistency with the one given under Section D of the PDD. **CAR 29.** Please provide the information in tabular form on the measuring equipment used under the project.	**CAR 29**	OK

Table 3 Resolution of Corrective Actions and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
FAR 01. The project has not received the approval from the participating Parties.	Table 1, issue of checklist 1	Approval by the participating Parties will be involved after a positive determination report, under the law of the relevant Parties.	**FAR 01** will be closed after the parties will provide letters of approval.
CAR 01. PDD should contain the contact information of the entity - the owner of the source where JI project implementation is planned, including: object's EDRPOU code (Uniform State Register of Enterprises and Organizations of Ukraine) and title of KVED type of economic activities (Code of economic activities according to the general classification of economic activities). Please provide the relevant information.	Table 2, checklist question A.1.2.	Relevant corrections were made. Please see the revised PDD, Annex 6, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 02. Please bring Section A.2 in line with "Guidelines for users, Form of documents of Joint Implementation Project Development Document", version 04. Section shall not exceed one page.	Table 2, checklist question A.4.1.4.1	Appropriate corrections were provided. Please see the revised Section A.2 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 03. Please provide satellite photo of objects location in the project in Section A.4.1.4.	Table 2, checklist question A. 4.1.4.1.	Relevant photo was presented. Please see the revised Section A.2 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0 and Excel file.
CAR 04. Please provide technological	Table 2, checklist	Corresponding technological scheme and list	**The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
scheme of concentrating complex, which includes the main technological equipment, and provide list of this equipment.	question A. 4.2.1.1.	of equipment were provided. Please see the revised Section A.4.3 Of the PDD, version 2.0	
CAR 05. Please indicate the specific consumption of electricity per 1 ton of thermal coal extracted from waste heaps.	Table 2, checklist question A. 4.2.1.3.	Relevant information was provided. Please see the revised Section A.3 Of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 06. Productivity of heavy environment hydrocyclone has no measuring units. Please identify this parameter.	Table 2, checklist question A. 4.2.1.3.	Appropriate correction was made. Please see the revised Section A.4.1.4 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 07. Please specify in Section A.2. the appropriate order of the Director of "AGS-2008" LLC, which regulates the starting date of the JI project .	Table 2, checklist question 4.2.2.	Order No.65 dated 10/03/2008 on JI project implementation under the Kyoto Protocol was presented. This date is the starting date of the project. Please see the revised Section A.4.2. of the PDD, version 2.0 and supporting documents	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 08. Please include clear and complete information in Section A.2 concerning the weighing of coal production and logistics.	Table 2, checklist question A.4.2.2.	Relevant information was provided. Please see the revised Section A.4.2 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 09. Please bring tables 4-5 of the	Table 2, checklist question A.4.2.2.	Appropriate corrections were made.	**The issue is closed** on the basis of

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
PDD in accordance with the Guidelines.		Please see the revised Section A.4.4 of the PDD, version 2.0	corrections made in the PDD version 2.0.
CAR 10. Please indicate when Letter of Approval from the second Party of the project – Estonia – will be received.	Table 2, checklist question A.4.2.2	Appropriate explanation was indicated. Please see the revised Section A.5 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 11. Please correct the numbering of tables throughout PDD.	Table 2, checklist question B.1.2.2	Appropriate changes were made. Please see the revised PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 12. Please provide complete information on key parameters used to establish the baseline.	Table 2, checklist question B.1.2.4	Relevant information was presented. Please see the revised Section A.5 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 13. Please correct the reference to the information, which is specified in Table 9 of the PDD.	Table 2, checklist question B.1.2.3	Relevant information was presented. Please see the revised Section B.1 of the PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 14. Please specify appropriate data source that will be used in case of inaccessibility of data on average ash content and water content of coal extracted from the waste heaps.	Table 2, checklist question B.1.2.6.	Appropriate changes were made. Please see appropriate explanations, included in Section B.2. of the PDD.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 15. In the section of description of leakages calculation of CO2 emissions factor from electricity consumption is indicated incorrectly. Please provide the	Table 2, checklist question B.3.1.	Appropriate changes were made. Please see the revised PDD, version 2.0, Section B.3.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
appropriate correction.			
CAR 16. Description of the parameters used in the calculations of emission reductions under the project does not have univocal interpretation throughout the text of the PDD. Please make the necessary corrections.	Table 2, checklist question B. 3.1.	Appropriate corrections were made. Please see the revised PDD, version 2.0.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 17. Please correct the reference to the project JI 0144.	Table 2, checklist question B.3.1.	Appropriate corrections were made. Please see the revised PDD, version 2.0, Section D.1.1.3.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 18. Please specify the reason under which the operating life cycle of the project will last until 31/12/2013. And also provide the appropriate document confirming operational term for concentrating equipment.	Table 2, checklist question C.2.1.	Length of the project lifecycle depends on the volumes of waste heaps, which are dismantled under the project. It is assumed that they will be dismantled by the end of 2013. Operating life of concentrating equipment without major overhauls ends in 2015. Relevant information was provided. Please see the revised PDD, version 2.0, Section C.2.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 19. Please provide valid DSTU to determine the density of diesel fuel, and also justify its applicability. The given DSTU is invalid.	Table 2, checklist question D.1.5.	Relevant information was presented. Please see the revised PDD, version 2.0, Section D.1.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 20. Please provide more precise reference to the average electricity	Table 2, checklist question D.1.5.	Relevant reference was provided.	**The issue is closed** on the basis of

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
consumption per ton of extracted coal in Ukraine.		Please see the revised PDD, version 2.0, Section B.1.	corrections made in the PDD version 2.0.
CAR 21. Please provide justification that the used procedure is consistent with the standard procedures used in the relevant field with reference to determined PDD, where such procedure was used.	Table 2, checklist question D.1.8.	Used monitoring procedure corresponds to the standard procedures for projects of this type and common practice in the field. Following monitoring plans of the projects can be given as an example of the standard monitoring procedures: UA2000020 Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere[16]; UA2000034 Processing of Waste Heaps at "Monolith-Ukraine"[17]. The monitoring approach in this project is fully consistent with the standards in the field and includes monitoring of the amount of coal, extracted from the waste heap, the amount of fuel, consumed by the project activity, and the amount of electricity, consumed under the project. Additional monitoring parameters (ash and water content of coal is removed from the waste heap, emission factors, etc.) serve to improve the accuracy of monitoring and correspond to the applied approach to determining the baseline and monitoring in the project. Please see the revised PDD, version 2.0,	**The issue is closed** on the basis of corrections made in the PDD version 2.0.

[16] http://ji.unfccc.int/JI_Projects/DB/VOZK3HERSNQGFLCY0YZ3AX5W676M5R/Determination/Bureau%20Veritas%20Certification1277814730.41/viewDeterminationReport.html
[17] http://ji.unfccc.int/JI_Projects/DB/IPT7L3CLGIZTGGX27T2101W7XCUCWW/Determination/DNV-CUK1315829182.27/viewDeterminationReport.html

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		Section . D 1.	
CAR 22. Please describe in more details how weighing of extracted coal on automobile scales specified in the monitoring plan occurs.	Table 2, checklist question D.1.8.	Appropriate explanation was given. Please see the revised PDD, version 2.0, Section . D 1.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 23. Please include information on the certification of Coal Chemistry laboratory that analyzes samples of coal.	Table 2, checklist question D. 1.8.	Relevant information was provided. Please see the revised PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 24. Not all data sources parameters of which are not monitored throughout the crediting period, but are determined only once, are presented in Section B. Please make the appropriate corrections.	Table 2, checklist question D. 1.8.	Appropriate changes were made. Please see the revised PDD, version 2.0	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 25. Please add in Section D.1.3.1 indirect CO_2 emissions factor, which is used in the calculation of leakage.	Table 2, checklist question D. 1.3.1.	Appropriate changes were made. Please see the revised PDD, version 2.0, Section D.1.3.1.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 26. Please add information in Table D.2 about all parameters used for calculating GHG emission reductions.	Table 2, checklist question D. 2.1.	Relevant information was provided. Please see the revised PDD, version 2.0, Section D.2.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 27. Executive and management structures for implementing monitoring plan are presented not in a clear way and do not reflect the complete picture of the interactions between the project	Table 2, checklist question D. 3.1.	Relevant information was provided. Please see the revised PDD, version 2.0., Section D.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
owner and contracting companies.			
CAR 28. Annex of standard DBN A.2.2.-1-2003 is indicated incorrectly. Please correct this mistake.	Table 2, checklist question F. 1.2.	Annex of this standard was changed. Please see the revised PDD, version 2.0., Section F.1.	**The issue is closed** on the basis of corrections made in the PDD version 2.0.
CAR 29. Please provide the information in tabular form on the measuring equipment used under the project.	Table 2, Annex 3	Relevant information was provided. Please see the revised PDD, version 2.0., Annex 3.	
CL 01. During site visit, it was explained that PP first sets in motion a simple process in which coal and ash are sorted only by size and are sold together. Please add to Section A.2 of the PDD description of the situation, which was before the starting date, and also before the history of the project. It should also be noted in Section B.1 as an alternative to the baseline.	Table 2, question A.2.2	At the beginning of the project participants started simple process, where coal and ash were sorted by size only for the purpose of studying demand and explore coal content in different fractions. But sorted rock is the result of the process in which coal and ash are sorted only by size. Sorted rock is not a fuel, and cannot be used directly for burning. So there was no demand for sorted rock, and sorting quickly stopped. Thus, sorting waste heaps was not considered as basic alternative. Please see the revised PDD, version 2.0	Explanations were provided. **The issue is closed.**
CL 02. Please provide information on whether the project design engineering reflects current good practices.	Table 2, checklist question A. 4.2.1.1.	Use of heavy environment hydrocyclone is a reflection of modern engineering solutions in the field of mineral dressing. This method is economical and effective. It allows enriching raw material in a wide range by size and also allows in a maximum quality way extracting useful component from ballast mass.	Explanations were provided. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		Please see the revised PDD, version 2.0, Section A.4.2.	
CL 03. Please provide an explanation if weather conditions are affecting the level of coal production under the project.	Table 2, checklist question 4.2.1.1	Concentrating complex is situated in a compact building that is heated. All main technological equipment is in the premises, where the temperature is not below 10°C. So, the weather conditions in no way affect the operation of concentrating point. Weather conditions only affect the intensity of waste heaps dismantling, because in winter waste heaps may be covered with ice and rock mass may solidify. But this factor does not affect substantially the overall rate of coal mining. Please see the revised PDD, version 2.0, Section A.4.2.	Explanations were provided. **The issue is closed.**
CL 04. Please provide information on the coal content in +50mm fraction and its further application.	Table 2, checklist question A. 4.2.1.3.	This parameter is not a monitoring indicator so analysis of coal content in +50 mm fraction is not performed. However, the use of efficient technology of enriching rock mass allows maximum extracting all amount of carbonaceous fraction. This factor allows avoiding re-ignition of rock because enrichment wastes are inert mass of degassed raw materials. These wastes can be used for road construction, etc.	Explanations were provided. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CL 05. During the site visit it was indicated that there is a possibility of processing material from additional as of yet unidentified waste heaps at the four processing facilities. This needs to be clearly stated in the PDD.	Table 2, checklist question A.4.2.2	During the monitoring period it provides for the purchase of other waste heaps. New waste heaps data will be included in the appropriate monitoring report. Relevant changes have been made in section A.4.1.4. of the PDD. Please find revised PDD, version 2.0.	Clarification has been provided. **Issue is closed**.
CL 06. Please explain the value used in the monitoring plan for the Carbon Oxidation Factor of coal (*OXID coal*).	Table 2, checklist question B.1.7	A small part of the fuel carbon entering the combustion process escapes oxidation. For some fuels, this part may in practice not be negligible and where representative country-specific values, based on measurements are available, they should be used. In PDD use value for the Carbon Oxidation Factor of coal ($OXID_{coal}$) from National Inventory Report of Ukraine 1990-2009, p. 396. A conservative value Oxidation Factor of coal applies in PDD. Please find revised Excel model and PDD, version 2.0	Clarification has been provided. **Issue is closed**.
CL 07. According to section B.2 the project has similar technology and similar scale as a comparable project already positively determined by an AIE. The demonstration of similar technology needs to include a discussion of the respective separation technologies used. The demonstration of similar scale needs to include a	Table 2, checklist question B.2.4.1	Both technologies use wet separation method in heavy environment. Wet separation is an industrial method of separating two components from a suspension or any other homogeneous mixture where separating the components with gravity is sufficiently practical. So both technologies are similar. Nominal capacity of the processing plant is	Clarification has been provided. **Issue is closed**.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
discussion of the respective capacities of the processing plants.		comparable in both projects and is 100 000 tonnes of material per month. Relevant changes have been made in section B.2 of the PDD. Please find revised PDD, version 2.0.	
CL 08. During the project implementation large number of rock mass containing certain percentage of carbon is processed. Please provide justification that enrichment wastes do not affect the level of emissions in the project scenario. Also, please justify that methane emissions from enriched coal that is stored at the factory are neglected.	Table 2, checklist question B. 3.1.	The aim of the project is processing waste heaps and removing carbon from the waste mass. Sorted fraction with high carbon content is used for energy purposes in the national economy. Enrichment wastes are inert rock mass which has very low carbon content. Besides, waste heap of flat shape is formed from enrichment wastes that does not lead to erosion and allows effective monitoring the condition of heap. Due to these factors the possibility of emissions creation as a result of burning heaps from enrichment wastes is excluded. Emissions factors as consumption of fuel and electricity for enrichment waste treatment (removal, warehousing, etc.) are already included in the calculation of project emissions as the entire volume fuel and electricity consumption by enterprise is taken into account. Methane emissions from enriched coal, which is stored at the site of the project implementation, are neglected since this coal is already degassed during primary production from the mine and subsequent storage in heaps. In any case, the amount of coal that	Explanations were provided. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		would be mined in the baseline scenario would be subject to the same storage and transportation leading to the same emissions. Therefore, this potential source of emissions is neglected and such that does not affect the calculation of the project emission reductions. Please see the revised PDD, version 2.0	
CL 09. Please provide an explanation, how the project boundaries are established and give an appropriate source.	Table 2, checklist question B.3.1	Emission sources in this PDD are presented in accordance with the provisions of Articles 13 and 14 of the JISC Guidance. Please see the revised PDD, version 2.0, Section A.2.	Explanations were provided. **The issue is closed.**
CL 10. Please provide explanations on how to use the coefficient of fugitive methane emissions from extracting coal from the mines from National Greenhouse Gas Inventory for 1999-2009.	Table 2, checklist question D.1.5	National Inventory Report in Ukraine for 1990-2009 gives clear and transparent information on the value of the coefficient of fugitive methane emissions during operation of mines. In the new edition of this source there is no numerical value for this coefficient, and it is represented as a curve on the graph. This way of data demonstration does not give an opportunity to accurately and transparently identify appropriate value of the coefficient, but only shows trend of change of this indicator by years. The use of this source includes presence of high level of uncertainty that puts into doubt overall results of emission reductions calculations. Please see the revised PDD, version 2.0, Section B.1.	Explanations were provided. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CL 11. Please specify if there was any replacement of technical equipment during monitoring period.	Table 2, checklist question D.1.7	All project equipment is new and has operational lifetime up to 2015 inclusively. Therefore, significant changes in the technological links of the complex are not expected. Only planned replacements of gearboxes, motors and other auxiliary devices are possible under the project in order to prevent accidents.	Explanations were provided. **The issue is closed.**