DETERMINATION REPORT PRIVATE ENTERPRISE "MANAGEMENT COMPANY "METROPOLIYA"

DETERMINATION OF THE WASTE HEAPS DISMANTLING OF "RIGHT" LLC WITH THE AIM OF DECREASING THE GREENHOUSE GASES EMISSIONS INTO THE ATMOSPHERE

REPORT NO. UKRAINE-DET/0597/2012

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DETERMINATION REPORT: "WASTE HEAPS DISMANTLING OF "RIGHT" LLC WITH THE AIM OF DECREASING THE GREENHOUSE GASES EMISSIONS INTO THE ATMOSPHERE"

Date of first issue:	Organizational unit:
03/08/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
PE "MC "Metropoliya"	Andriy Dovgal

Summary:

Bureau Veritas Certification has made the determination of the "Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere" project of PE "MC "Metropoliya" located in Makiivka town, Donetsk Region, Ukraine on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

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

Report No.:	Subject Group:
UKRAINE-det/0597/2012	JI

Project title:
Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere

Work carried out by:
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Bureau Veritas Certification Holding SAS

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Indexing terms

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1 INTRODUCTION

PE "MC "Metropoliya" has commissioned Bureau Veritas Certification to determine its JI project "Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere" (hereafter called "the project") at Makiivka Town, Donetsk Region, Ukraine.

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

1.1 Objective

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

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

1.2 Scope

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

The determination is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Determination team

The determination team consists of the following personnel:

Vyacheslav Yeriomin
Bureau Veritas Certification Team Leader, Climate Change Verifier

Serhiy Verteletskiy
Bureau Veritas Certification Climate Change Verifier

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal reviewer

Nikolay Chekhmestrenko
Bureau Veritas Certification, technical specialist

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

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

To address Bureau Veritas Certification corrective action and clarification requests, PE "MC "Metropoliya" revised the PDD and resubmitted it on 03/08/2012.

The determination findings presented in this report relate to the project as described in the PDD version(s) 2.0.

2.2 Follow-up Interviews

On 03/08/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of PE "MC "Metropoliya" and "RIGHT" LLC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
"RIGHT" LLC	➢ Project History ➢ Project Approach ➢ Project boundary ➢ Implementation Schedule ➢ Organization structure ➢ Authorities and responsibilities ➢ Training of personnel ➢ Quality management procedures and technologies ➢ Records on rehabilitation/implementation of equipment ➢ Metering equipment control ➢ Metering record keeping system, database ➢ Technical documentation ➢ Monitoring plan and procedures ➢ Permits and licenses
CONSULTANT PE "MC "Metropoliya"	➢ Baseline methodology ➢ Monitoring plan ➢ Additionality proofs ➢ Calculation of emission reductions

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

If the determination team, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI project requirements, it will raise these issues and inform the project participants of these issues in the form of:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake in the published PDD that is not in accordance with the (technical) process used for the project or relevant JI project requirement or that shows any other logical flaw;

(b) Clarification request (CL), requesting the project participants to provide additional information for the determination team to assess compliance with the JI project requirement in question;

(c) Forward action request (FAR), informing the project participants of an issue, relating to project implementation but not project design, that needs to be reviewed during the first verification of the project.

The determination team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily resolve the issues raised, if any, and should conclude its findings of the determination.

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

3 PROJECT DESCRIPTION

The project "Waste Heaps Dismantling of "RIGHT" LLC with the Aim of Decreasing the Greenhouse Gases Emissions into the Atmosphere" is a project that envisages implementation of a number of works at the sites close to the waste heap, which is formed by the mine "Sheglivska-Glyboka" of Shakhtoupravlinnya "Donbas" as follows:

- Building of the complex of beneficiation plant in order to process one existing waste heap (cone);
- Beneficiation of coal and rock mass in order to obtain ROM coal;
- Formation of new flat heaps from processing waste on the site of dismantled heaps.

According to the project, implementation of the full cycle for beneficiation of coal and rock mass from extraction of coal from the waste heaps to loading as an end-product in automobile transport is prescribed. In addition to the extraction of coal from the waste heaps, project activity also includes formation new flat heaps from the processed material at the released area of the processed heaps. According to the project complex for processing the waste heaps processes up to 756 thousand tons of rock substance per year in order to extract low-ash coal concentrate.

Coal extraction from the mine's waste heaps will prevent greenhouse gas emissions into the atmosphere as if in the case of spontaneous burning and will produce additional amount of coal instead of its mining.
Complex for processing the waste heaps is located in Makiivka, Donetsk region, the same place where the waste heap is located. "RIGHT" LLC buys raw materials (rock) in Shakhtoupravlinnya "Donbas", of the mine "Sheglivska-Glyboka" under concluded agreement.

The structure of technological complex for processing of coal and rock mass was taken, considering stable operation of all links of technological scheme of the reception, preparation, beneficiation, shipment of commercial products and waste. Technological complex of processing point includes the following buildings and facilities:

- trestle for the scraper conveyor;
- collection point for coal and rock mass;
- classification point;
- installation of pneumatic separator;
- point of loading concentrate;
- trestles #1,2,3,4,5.

Raw material base for beneficiation complex is bulk materials, transported from the waste heap. These raw materials are processed to obtain primary and coal concentrate 0-50mm. But the construction of certain components of beneficiation plant make it possible to enrich ROM coal of fraction up to 75mm. Operation mode of beneficiation plant depends on the size of raw material that is transported by trucks from the waste heap.

The main element of beneficiation plant is pneumatic separator SVP-5, 5×1. Pneumatic separator SVP-5, 5 × 1 is developed by "Lugansk Machine-Building Plant named after A. Parkhomenko" LLC and is intended for beneficiation of coal, ores and other bulk materials with bulk density up to 2.8 t/m^3, surface moisture up to 8% and material size up to 75mm. Depending on the characteristics of coal and rock mass, separator structure allows to implement different schemes of division into two or three products: concentrate, middlings and wastes of beneficiation.

According to the project, implementation of the full cycle for beneficiation of coal and rock mass from extraction of coal from the waste heaps to loading as an end-product in automobile transport is prescribed. In addition to the extraction of coal from the waste heaps, project activity also includes formation new flat heaps from the processed material at the released area of the processed heaps. According to the project complex for processing the waste heaps processes up to 756 thousand tons of rock substance per year in order to extract low-ash coal concentrate.

The scheme of processing of coal and rock mass 0-50mm is the following: rock substance is transported from the waste heap to the collection point. Then feedstock output is loaded by scraper conveyor to the bunker with capacity of 30 tons. The structure of bunker includes a special sieve, through which there is previous classification of rock >100mm. With the help of the special feeder and belt conveyor, rock 0-100mm is supplied to the classification point (screen), where the separation of rock into classes 0-50mm and >50mm is done.

Rock mass >50 mm is removed from the technological process, sent to the trestle #3, where by means of the belt conveyor it is loaded into a truck and transported to another industrial site, where it is grinding, after

that the material returns to the technological process.

After classification, material 0-50mm is sent to the trestle #2, where by means of the belt conveyor it is transported to the bunker with capacity of 15 tons, installed in order to provide sustainable, quality indicators of beneficiation of coal and rock mass and minimal losses of coal with wastes of beneficiation. Then using feeder, raw materials of class 0-50mm, which provides continuous and uniform supply in pneumatic separator, go to beneficiation in pneumatic separator.

Coal, extracted from the waste heaps, will substitute the coal from mines and will be used to generate electricity at power plants and for coke for other needs of industry. In addition, extraction of coal from waste heap provides less electricity consumption from power grid of Ukraine than during mining. Also, additional amount of coal without the need of being mined will be received, and the leakages of methane caused by coal mining will be avoided. Emissions reductions can be sold as Emission Reduction Units (ERUs) in the international carbon units market.

Emission reductions resulting from this project will come from three main sources:

- Removing of greenhouse gas emissions source from self-heating of the waste heap by mining coal from it;
- Removing fugitive methane emissions because of coal mining by substitution of the coal from the mine to the coal extracted from the waste heap under the project activity;
- Reduction of energy consumption during waste heap dismantling compared to energy consumption during extraction of the same amount of coal from mine.

Identified problem areas for project description, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 01-04, CL01-04).

4 DETERMINATION CONCLUSIONS

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

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

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 21 Corrective Action Requests and 5 Clarification Requests.

The number between brackets at the end of each section corresponds to the DVM paragraph

4.1 Project approvals by Parties involved (19-20)

The project has already received Letter of Endorsement #2023/23/7 dated 27/07/2012 issued by State Environmental Investment Agency.
The Bureau Veritas Certification obtained Letter of Endorsement from PE "MC "Metropoliya" and doesn't doubt in its authenticity.
As for this time no written project approvals of the project from the Parties Involved are available (see CAR06 pending till the Host Party LoA received). After receiving Determination Report from the Accredited Independent Entity (AIE) project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environment Investment Agency for receiving the Letter of Approval.
The written approvals from the other Party will be obtained later on.

Identified problem areas for project written approvals, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 05, CAR 06).

4.2 Authorization of project participants by Parties involved (21)

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.
Authorisation of the project participants by Parties involved is expected through a written project approval, see CAR06 that is pending.

4.3 Baseline setting (22-26)

The PDD explicitly indicates that 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) was the selected approach for identifying the baseline.

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

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

Scenario 1. Continuation of existing situation
This scenario does not anticipate any activities and therefore does not face any barriers.

Scenario 2. Direct energy production from the heat energy of burning waste heap

Technological barrier:
This scenario is based on the highly experimental technology, which has not been implemented even in a pilot project. It is also not suitable for all waste heaps as the project owner will have to balance the energy resource availability (i.e. waste heap location) and the location of the energy user. On-site generation of electricity addresses this problem but requires additional interconnection engineering. In general this technology has yet to prove its viability. In addition it does not allow the control and management of the emitted gases. This technology can be applied only in the presence of dumps with developed combustion centre. Even if the probability of burning rock dump is very high, it is currently impossible to predict the time of its outbreak and therefore predict the start of the use of thermal energy released during its combustion.

Investment barrier:
Investment into unproven technology carries a high risk. In case of Ukraine, which carries a high country risk, investment into such unproven energy projects are less likely to attract investors than some other opportunities in the energy sector with higher returns. The pioneering character of the project may appeal to development programmes and governmental incentives but cost of the produced energy is likely to be much higher than alternatives.

Scenario 3. Production of construction materials from waste heap matter
Technological barrier:
This scenario is based on known technology, however, this technology 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. High contents of sulphur and moisture can reduce the suitability of the waste heap for processing. A large scale deep exploration of the waste heap has to be performed before the project can start.

Scenario 4. Coal extraction from waste heaps without JI incentives
Investment barrier: This scenario is financially unattractive and faces barriers. Detailed description of proposed scenario barriers is provided in the section B.2 of the PDD version 2.0.

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

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 done systematically and in general actions are left to the discretion of the individual owners. Waste heaps are mostly owned by mines or regional coal mining associations. Coal mines in Ukraine suffer from limited investment resulting often in safety problems due to complicated mining conditions and financial constraints, with miners' salaries often being delayed by few months. Waste heaps in this situation are considered as additional burdens and mines often do not even perform minimum required maintenance. Exact data are not always available. From a commercial view point the fines that are usually levied by the authorities are considerably lower than costs of all the measures outlined by this scenario.

In this context, the Bureau Veritas Certification 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:

- sectoral reform initiatives;
- local fuel availability;
- power sector expansion plans;
- economic situation in the project sector.

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

Project participants used default values to the extent possible in order to reduce uncertainty and provide conservative data for emission calculations.
Also, conservative approach is the calculation of energy consumption, as the maximum possible consumption by 2-shift work of the main and auxiliary equipment throughout the year without exception.

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.
According to the described approach, emission reduction units shall be obtained only when due to the project boundaries coal will be extracted from the dump

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y} , \quad (1)$$

Where:

$BE_{WHB,y}$ - baseline emissions due to burning of the waste heap in the year *y* (tCO2 equivalent),

Baseline emissions due to burning dumps in year y calculated by the formula:

$$BE_{WHB,y} = FC_{BE,Coal,y}/1000 \cdot \rho_{WHB} \cdot NCV_{Coal} \cdot OXID_{Coal} \cdot K_{Coal}^{c} \cdot 44/12 \quad (2)$$

where:

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heap because of the project activity in the year *y,* t;

ρ_{WHB} - probability of waste heap burning , d/l;

NCV_{Coal} - net Calorific Value of coal, TJ/kt;

$OXID_{Coal}$ - carbon Oxidation factor of coal, d/l;

K_{Coal}^{c} - carbon content of coal, tC/TJ;

1/1000 - conversion factor from tons in kilotonnes, d / l

44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.

The amount of coal produced in mines in the baseline scenario is calculated by the formula:

$$FC_{BE,Coal,y} = FR_{Coal,y} \cdot (1-A_{rock,y}/100-W_{rock,y}/100) \cdot (1-A_{Coal}/100-W_{Coal}/100) \quad (3)$$

where:

$FR_{Coal,y}$ - amount of sorted fraction (0-30mm), which is extracted from the dumps because of the project in a year y, that came to blending with further combustion in thermal power plants, t;

$A_{rock,y}$ - the average ash content of sorted fractions (0-30mm), which is extracted from dump in year y,%

$W_{rock,y}$ - the average humidity of sorted fractions (0-30mm), which is extracted from dump in year y, %;

A_{Coal} - the average ash content of coal, mined in Donetsk region of Ukraine, %;

W_{Coal} - the average humidity of coal, mined in Donetsk region of Ukraine, %;

100 - conversion factor from percent to fraction, d/l.

Identified problem areas for baseline for baseline setting, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 07-CAR 10).

4.4 Additionality (27-31)

The project "Waste Heap Dismantling in Luhansk Region of Ukraine with the Aim of Reduction Greenhouse Gases Emissions to Atmosphere" is selected as the comparable JI project. Accredited independent entity has

already positively determined that it would result in a reduction of anthropogenic emissions by sources or an enhancement of net anthropogenic removals by sinks that is additional to any that would otherwise occur. This determination has already been deemed final by the JISC. Appropriate documentation such as PDD and Determination Report regarding this project is available traceably and transparently on the UNFCCC JI Website.

http://ji.unfccc.int/JIITLProject/DB/MWT8YE8A68MBKRG48QJ8Q4O44M7BVY/details

Additionality of the project was demonstrated adequately by demonstrating that the indicated project is implemented under comparable circumstances:

a) Both projects propose **same GHG mitigation measure:** The proposed GHG mitigation measure under both projects is coal extraction from the mine's waste heaps. This will prevent greenhouse gas emissions into the atmosphere during combustion of the heaps and will contribute an additional amount of coal, without the need for mining.

b) Both projects are implemented within the **same country and the same time**: The proposed project and identified comparable project are both located in Ukraine, Donetsk Region, both projects crediting period starts 01/01/2008.

c) **Scale.** The difference between the proposed project and the other project(s) is less than 50 per cent in terms of the projects output (i.e. power output, capacity increase, etc.) or service provided;
The projects envisage production of the same product (rock mass sorting), average rock mass outputs for both projects are similar. Criteria is satisfied.

d) There were no significant changes in **regulatory framework** between the starting dates of two projects. Criteria is satisfied.

The desk review of provided information and follow-up interviews enabled Bureau Veritas Certification Holding SAS to assess that all explanations, descriptions and analyses in the demonstration of additionality were made in accordance with criteria of "Guidance on criteria for baseline setting and monitoring ", version 03" and this projects is indeed comparable project, implemented under comparable circumstances. The proposed JI activity provides the reductions in emissions by sources that are additional to any that would otherwise occur.

Identified problem areas for project additionality, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR11, CL05).

4.5 Project boundary (32-33)

The details on the project boundary were provided in section B.3 of the PDD. The desk review of submitted documentation enabled Bureau Veritas Certification 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. Emissions of carbon dioxide due to:
- Waste heap burning;
- Consumption of coal for energy production (excluded, does not take into the consideration in calculation).

The project emission sources of GHGs that were included in the project boundaries are listed below. Emissions of carbon dioxide due to:
- Consumption of electricity due to extracting coal from dump;
- Consumption of fossil fuel (diesel fuel) due to extracting coal from dump;
- Consumption of coal for energy production (excluded, does not take into the consideration in calculation).

Leakages:
- Fugitive emissions of methane in the mining activities;
- Consumption of electricity from a grid at coal mine.
- Use of other types of energy sources due to mining (excluded).

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 and provided in Table 20 of the PDD.

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 in section B.3 of the PDD.

Identified problem areas for project boundaies, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 12, CAR13).

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began, and the starting date is 16/11/2006, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 13 years and 6 months.

The PDD states the length of the crediting period in years and months, which is 5 years or 60 months, and its starting date as 01/01/2008, which is after the date the first emission reductions or enhancements of net removals are generated by the project.

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

Identified problem areas for project crediting period, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR 14, CAR15).

4.7 Monitoring plan (35-39)

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

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

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions or enhancements of net removals to be monitored such as Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine.

The monitoring plan draws on the list of standard variables indicated in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC.

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination, such as Global Warming potential of the Methane, Methane Density, Net Calorific Value of Coal, Net calorific value of Diesel fuel, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, Carbon content of coal, Carbon content of diesel fuel, Emission factor for fugitive methane emissions from coal mining, Specific carbon dioxide emissions due to production of electricity at TPP and by its consumptions, The average ash content of coal produced in Donetsk region, the average moisture of coal produced in Donetsk Region, probability of waste heap burning, average electricity consumption per tonne of coal, produced in Ukraine

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

(iii) Data and parameters that are monitored throughout the crediting period, such as Additional amount of electricity consumed in project, amount of diesel fuel consumed in project year, value of produced coal.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as direct monitoring of electricity consumption by meters, sampling of produced coal, etc. Description of employed methods is provided in the section D.1 of the PDD.

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

The annual emission reductions are calculated as follows:

$$ER_y = BE_y – PE_y - LE_y, \quad (4)$$

where:
ER_y - emissions reductions of the JI project in year y (tCO2 equivalent);

BE_y - baseline emission in year y (tCO2 equivalent);
PE_y - project emission in year y (tCO2 equivalent);
LE_y - leakages in year y, (tCO2 equivalent).

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y}\ , \quad (5)$$

Where:
$BE_{WHB,y}$ - baseline emissions due to burning of the waste heap in the year *y* (tCO2 equivalent),

Baseline emissions due to burning dumps in year y calculated by the formula:

$$BE_{WHB,y} = FC_{BE,Coal,y}/1000 \cdot \rho_{WHB} \cdot NCV_{Coal} \cdot OXID_{Coal} \cdot K_{Coal}^{C} \cdot 44/12 \quad (6)$$

where:
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heap because of the project activity in the year *y,* t;
ρ_{WHB} - probability of waste heap burning , d/l;
NCV_{Coal} - net Calorific Value of coal, TJ/kt;
$OXID_{Coal}$ - carbon Oxidation factor of coal, d/l;
K_{Coal}^{C} - carbon content of coal, tC/TJ;
1/1000 - conversion factor from tons in kilotonnes, d / l
44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.

The amount of coal produced in mines in the baseline scenario is calculated by the formula:

$$FC_{BE,Coal,y} = FR_{Coal,y} \cdot (1-A_{rock,y}/100-W_{rock,y}/100) \cdot (1-A_{Coal}/100-W_{Coal}/100) \quad (7)$$

where:
$FR_{Coal,y}$ - amount of sorted fraction (0-30mm), which is extracted from the dumps because of the project in a year y, that came to blending with further combustion in thermal power plants, t;
$A_{rock,y}$ - the average ash content of sorted fractions (0-30mm), which is extracted from dump in year y,%
$W_{rock,y}$ - the average humidity of sorted fractions (0-30mm), which is extracted from dump in year y, %;
A_{Coal} - the average ash content of coal, mined in Donetsk region of Ukraine, %;
W_{Coal} - the average humidity of coal, mined in Donetsk region of Ukraine, %;
100 - conversion factor from percent to fraction, d/l.

Emissions from the project activity are calculated as follows:

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

where:
PE_y - project emissions due to project activity in the year *y* (tCO2 equivalent),
$PE_{EL,y}$ - project emissions due to consumption of electricity from the grid by the project activity in the year y (tCO2 equivalent),
$PE_{Diesel,y}$ - project emissions due to consumption of diesel fuel by the project activity in the year *y* (tCO2 equivalent).

The Project emissions due to consumption of electricity from a grid in a year y are calculated as follows:

$$PE_{EL,y} = EC_{PE,y} \cdot EF_{CO2,EL} \quad (9)$$

where:
$EC_{PE,y}$ - additional amount of electricity, consumed in project in year y, MWh;
$EF_{CO2,EL}$ - Specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/MWh;

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

$$PE_{Diesel,y} = FC_{BE,Diesel,y}/1000 \cdot NCV_{Diesel} \cdot OXID_{Diesel} \cdot K_{Diesel}^{c} \cdot 44/12 \quad (10)$$

where:
$FC_{BE,Diesel,y}$ - amount of diesel fuel, consumed in project in year y, t;
NCV_{Diesel} - Net Calorific Value of diesel fuel, TJ/kt;
$OXID_{Diesel}$ - carbon Oxidation factor of diesel fuel, d/l;
K_{Diesel}^{c} - carbon content of diesel, tC/TJ;
44/12 - stoichiometric relationship between the molecular weight of carbon dioxide and carbon.
1/1000 - conversion factor from tons in kilotonnes, d / l

Leakages in year y are calculated as follows:

$$LE_y = LE_{CH4,y} + LE_{EL,y} \quad (11)$$

where::
LE_y - leakages in year y, (t CO2e);
$LE_{CH4,y}$ - leakages due to fugitive emissions of methane in the mining activities in the year *y*, (t CO2e);
$LE_{EL,y}$ - leakages due to consumption of electricity from a grid at coal mine in a year y,(t CO2e);

Leakages due to fugitive emissions of methane in the mining activities in the year *y* are calculated as follows:

$$LE_{CH4,y} = - FC_{BE,Coal,y} \cdot EF_{CH4} \cdot \rho_{CH4} \cdot GWP_{CH4} , \quad (12)$$

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y,* t, calculated as (4);
EF_{CH4} - emission factor for fugitive methane emissions from coal mining, m3/t;
ρ_{CH4} - methane density at standard conditions t/m3;
GWP_{CH4} - Global Warming Potential of Methane, tCO2/ tCH4.

Leakages due to consumption of electricity from a grid at coal mine in a year y are calculated as follows:

$$LE_{EL,y} = - FC_{BE,Coal,y} \cdot N_{Coal,y}^{E} \cdot EF_{CO2,EL,y} \quad (13)$$

Where
$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps because of the project activity in the year *y,* t, calculated as (2);
$N_{Coal,y}^{E}$ - Average electricity consumption per tonne of coal, produced in Ukraine in the year y, MWh/t;
$EF_{CO2,EL,y}$ - Specific carbon dioxide emissions due to production of electricity at TPP and by its consumption, tCO2/MWh

The monitoring plan presents the quality assurance and control procedures for the monitoring process described in the section D.2 of the PDD. 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.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. Clear and transparent scheme of monitoring data flow is provided in the section D.3 of the PDD.

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

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC,

commercial and scientific literature etc.) but not including data that are calculated with equations.

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

Identified problem areas for project monitoring plan, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A to the Determination Report (refer to CAR16- CAR20).

4.8 Leakage (40-41)

This project will result in a net change in fugitive methane emissions due to the mining activities. As coal in the baseline scenario is only coming from mines it causes fugitive emissions of methane. These are calculated as standard country specific emission factor applied to the amount of coal that is extracted from the waste heaps in the project scenario (which is the same as the amount of coal that would have been mined in the baseline scenario. Source of the leakage are the fugitive methane emissions due to coal mining. These emissions are specific to the coal that is being mined. Coal produced by the project activity is not mined but extracted from the waste heap through the advanced beneficiation process. Therefore, coal produced by the project activity substitutes the coal would have been otherwise mined in the baseline. Coal that is mined in the baseline has fugitive methane emissions associated with it and the coal produced by the project activity does not have such emissions associated with it.

As reliable and accurate national data on fugitive CH4 emissions associated with the production of coal are available, project participants used this data to calculate the amount of fugitive CH4 emission as described below.

This leakage is measurable: through the same procedure as used in 2006 IPCC Guidelines (See Volume 2, Chapter 4, Page 4-11) and also used in CDM approved methodology ACM009, Version 03.2 (Page 8). Activity data (in our case amount of coal extracted from the waste heap which is monitored directly) is multiplied by the emission factor (which is sourced from the relevant national study – National Inventory Report of Ukraine under the Kyoto Protocol) and any conversion coefficients.

Electricity consumption and related greenhouse gas emissions due to dismantling of waste heap to be taken into account in calculating the project emissions. Carbon dioxide emissions due to electricity consumption in the coal mine way in an amount, equivalent to the design of coal - a leakage that can be taken into account at base of the State Statistics Committee data, concerning unit costs of electricity at coal mines in Ukraine in the relevant year.

This leakage is directly attributable to the JI project activity according to the following assumption: the coal produced by the project activity from the waste heap will substitute the coal produced by underground mines of the region in the baseline scenario. This assumption is explained by the following logic: Energy coal market is demand driven as it is not feasible to produce coal without demand for it. Coal is a commodity that can be freely transported to the source of demand and coal of identical quality can substitute some other coal easily. The project activity cannot influence demand for coal on the market and supplies coal extracted from the waste heaps. In the baseline scenario demand for coal will stay the same and will be met by the traditional source – underground mines of the region. Therefore, the coal supplied by the project in the project scenario will have to substitute the coal mined in the baseline scenario. According to this approach equivalent product supplied by the project activity (with lower associated specific green-house gas emissions) will substitute the baseline product (with higher associated specific green-house gas emissions). This methodological approach is very common and is applied in all renewable energy projects (substitution of grid electricity with renewable-source electricity), projects in cement sector (e.g. JI0144 Slag usage and switch from wet to semi-dry process at JSC "Volyn-Cement", Ukraine), projects in metallurgy sector (e.g. UA1000181 Implementation of Arc Furnace Steelmaking Plant "Electrostal" at Kurakhovo, Donetsk Region) and others.
The problem areas for project leakages were not identified

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

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

The PDD provides the ex ante estimates of:

(a) Emissions for the project scenario (within the project boundary), which are 13525 tonnes of CO2eq for period 01/01/2008-31/12/2012 and 21680 tonnes of CO2eq for period 01/01/2013-31/12/2020;

(b) Leakage, which are -492315 tonnes of CO2eq for period 01/01/2008-31/12/2012 and -775 304 tonnes of CO2eq for period 01/01/2012-31/12/2020;

(c) Emissions for the baseline scenario (within the project boundary), which are 1 723 771 tonnes of CO2eq for period 01/01/2008-31/12/2012 and 2 743 320 tonnes of CO2eq for period 01/01/2013-31/12/2020;

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are 2 202 561 tonnes of CO2eq for period 01/01/2008-31/12/2012 and 3 496 944 tonnes of CO2eq for period 01/01/2013-31/12/2020.

The PDD provides the ex ante estimates of:

The estimates referred to above are given:

(a) On a yearly basis;

(b) From 01/10/2008 to 31/03/2012, covering the whole crediting period;

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

(d) For each GHG gas, which is CO2, CH4

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

The formula used for calculating the estimates referred above, which are described in the section 4.7 of this Determination Report, are consistent throughout the PDD.

For calculating the estimates referred to above, key factors, e.g. local prices for electricity, coal and diesel fuel, available production resources, influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as work and laboratory logbooks, work and laboratory monthly and yearly reports, production sailing invoices are clearly identified, reliable and transparent.

Emission factors, such as emission factor for electricity consumption, Carbon Oxidation Factor of Coal, Carbon Oxidation Factor of Diesel Fuel, etc, were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

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

The estimates referred to above are consistent throughout the PDD.

The annual average of estimated emission reductions or enhancements of net removals 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.

Identified problem areas for project estimations, project participants' responses and conclusions of Bureau Veritas Certification are described in Annex A (CAR21).

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as permit on pollutant by stationary sources, analysis of the environmental impacts, a part of separation fabric work project which is mentioned in the PDD.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party, if the analysis referred to above indicates that the environmental impacts are considered significant by the project participants or the host Party.

4.11 Stakeholder consultation (49)

Host Party doesn't require public consultations with local stakeholders. Project owners presented project for local authorities and obtained positive opinion (permit on beneficiation plant building, etc). Local stakeholders were informed by newspaper "Allo, Makiivka" #48(68) dated 23/12/2007. Any comments were obtained.

4.12 Determination regarding small scale projects (50-57)

"Not applicable"

4.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64)

"Not applicable"

4.14 Determination regarding programmes of activities (65-73) (write "Not applicable"

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

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere" Project in Makiivka town, Donetsk Region, Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 2.0 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation (version 2.0) and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

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

7 REFERENCES

Category 1 Documents:
Documents provided by PE "MC "Metropoliya" that relate directly to the GHG components of the project.

/1/ Project Design Documentation "Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere" version 1.0 dated 19/07/2012
/2/ Project Design Documentation "Waste heaps dismantling of "Right" LLC with the aim of decreasing the greenhouse gases emissions into the atmosphere" version 2.0 dated 03/08/2012
/3/ Emission Reduction calculations Excel file "ER_RIGHT_ver_2.0.xls"
/4/ Letter of Endorsement #2023/23/7 dated 27/07/2012 issued by State Environment Investment Agency of Ukraine

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

/1/ Environmental impact assessment on rock mass processing workshop "Right" LLC building
/2/ Statement on choice and research of plot of ground for rock mass processing workshop building disposal
/3/ Technical passport and calibration certificate on scales #3 inv. #50331 type RS-200D24
/4/ Photo: Power meter ELGAMA EPQS 122.21.19SS #648728
/5/ Annex #9 on contract on electricity supply 1/06 dated 15/09/2005. List of "Right" LLC facilities consuming energy from supplier grids or grids of main consumer
/6/ Data and characteristics of measuring transformers and connected lines
/7/ Passport and calibration certificate on power meter SR4U-I673M #870476
/8/ Passport and calibration certificate on power meter SAZU-I673M #199139
/9/ Passport and calibration certificate on power meter ELGAMA EPQS 122.21.19SS #648728
/10/ List of works to be performed dated 24/04/2009 on replacement of power meter СР4У-И673М #870476 and СА3У-И670М #199139 to power meter ELGAMA EPQS 122.21.19SS #648728
/11/ Explanatory note on work project of rock mass processing workshop building
/12/ Development task on work project of rock mass processing workshop building
/13/ Invoice #RN-01/02/9 dated 01/02/2008 on diesel fuel supply

/14/ Invoice #RN-01/07/9 dated 01/07/2008 on diesel fuel supply
/15/ Invoice #RN-01/09/9 dated 01/09/2008 on diesel fuel supply
/16/ Invoice #RN-01/04/9 dated 01/04/2008 on diesel fuel supply
/17/ Invoice #RN-02/10/3 dated 02/10/2008 on diesel fuel supply
/18/ Invoice #RN-02/12/2 dated 02/12/2008 on diesel fuel supply
/19/ Invoice #RN-03/01/2 dated 03/01/2008 on diesel fuel supply
/20/ Invoice #RN-03/03/4 dated 03/03/2008 on diesel fuel supply
/21/ Invoice #RN-03/11/5 dated 03/11/2008 on diesel fuel supply
/22/ Invoice #RN-04/08/2 dated 04/08/2008 on diesel fuel supply
/23/ Invoice #RN-05/05/9 dated 05/05/2008 on diesel fuel supply
/24/ Act to debit of diesel fuel in May 2011 dated 31/05/2011
/25/ Act to debit of diesel fuel in September 2011 dated 31/08/2011
/26/ Act to debit of diesel fuel in December 2011 dated 31/12/2011
/27/ Acceptance-transmittance act #y-35895135 dated 29/02/2008 on electricity supply
/28/ Acceptance-transmittance act #y-58964279 dated 30/04/2008 on electricity supply
/29/ Acceptance-transmittance act # y-78523687 dated 30/06/2008 on electricity supply
/30/ Acceptance-transmittance act # y-85632148 dated 30/09/2008 on electricity supply
/31/ Acceptance-transmittance act # y-15972356 dated 30/11/2008 on electricity supply
/32/ Acceptance-transmittance act # y-21201463 dated 31/01/2008 on electricity supply
/33/ Acceptance-transmittance act # y-48521358 dated 31/03/2008 on electricity supply
/34/ Acceptance-transmittance act #y-68741199 dated 31/03/2008 on electricity supply
/35/ Acceptance-transmittance act #y-87436951 dated 31/07/2008 on electricity supply
/36/ Acceptance-transmittance act #y-95782318 dated 31/08/2008 on electricity supply
/37/ Acceptance-transmittance act #y-65238956 dated 31/10/2008 on electricity supply
/38/ Acceptance-transmittance act #y-58963245 dated 31/12/2008 on electricity supply
/39/ Acceptance-transmittance act # 03824 dated 28/02/2011 on electricity supply
/40/ Acceptance-transmittance act #07910 dated 30/10/2011 on electricity supply
/41/ Acceptance-transmittance act #11671 dated 30/04/2011 on electricity supply
/42/ Acceptance-transmittance act #17698 dated 30/09/2011 on electricity supply
/43/ Acceptance-transmittance act #21987 dated 30/11/2011 on electricity supply

/44/ Acceptance-transmittance act #01883 dated 31/01/2011 on electricity supply
/45/ Acceptance-transmittance act #05659 dated 31/03/2011 on electricity supply
/46/ Acceptance-transmittance act #09589 dated 31/05/2011 on electricity supply
/47/ Acceptance-transmittance act #13902 dated 31/07/2011 on electricity supply
/48/ Acceptance-transmittance act #15745 dated 31/08/2011 on electricity supply
/49/ Acceptance-transmittance act #19759 dated 31/10/2011 on electricity supply
/50/ Acceptance-transmittance act #23999 dated 31/12/2011 on electricity supply
/51/ Passport on waste heap #1 of mine Shcheglovska-Hlyboka dated 06/03/2009
/52/ Statement on accreditation #2N455 dated 14/12/2009 on State enterprise "Ukrvuhleyakist" laboratory centre
/53/ Statement on coal containing rock mass acceptance-transmittance dated 29/02/2008
/54/ Statement on coal containing rock mass acceptance-transmittance dated 30/04/2008
/55/ Statement on coal containing rock mass acceptance-transmittance dated 30/06/2008
/56/ Statement on coal containing rock mass acceptance-transmittance dated 29/02/2008
/57/ Statement on coal containing rock mass acceptance-transmittance dated 30/11/2008
/58/ Statement on coal containing rock mass acceptance-transmittance dated 31/01/2008
/59/ Statement on coal containing rock mass acceptance-transmittance dated 31/03/2008
/60/ Statement on coal containing rock mass acceptance-transmittance dated 31/05/2008
/61/ Statement on coal containing rock mass acceptance-transmittance dated 31/07/2008
/62/ Statement on coal containing rock mass acceptance-transmittance dated 31/08/2008
/63/ Statement on coal containing rock mass acceptance-transmittance dated 31/10/2008
/64/ Statement on coal containing rock mass acceptance-transmittance dated 31/12/2008
/65/ Statement on coal containing rock mass acceptance-transmittance dated 28/02/2011
/66/ Statement on coal containing rock mass acceptance-transmittance dated 30/04/2011
/67/ Statement on coal containing rock mass acceptance-transmittance

dated 30/06/2011
/68/ Statement on coal containing rock mass acceptance-transmittance dated 30/09/2011
/69/ Statement on coal containing rock mass acceptance-transmittance dated 30/11/2011
/70/ Statement on coal containing rock mass acceptance-transmittance dated 31/01/2011
/71/ Statement on coal containing rock mass acceptance-transmittance dated 31/03/2011
/72/ Statement on coal containing rock mass acceptance-transmittance dated 31/05/2011
/73/ Statement on coal containing rock mass acceptance-transmittance dated 31/07/2011
/74/ Statement on coal containing rock mass acceptance-transmittance dated 31/07/2011
/75/ Statement on coal containing rock mass acceptance-transmittance dated 31/10/2011
/76/ Statement on coal containing rock mass acceptance-transmittance dated 31/12/2011
/77/ Statement #25 on coal characteristics dated 27/02/2008
/78/ Statement #1237 on coal characteristics analysis dated 27/02/2008
/79/ Statement #251 on coal characteristics dated 13/11/2008
/80/ Statement #7563 on coal characteristics analysis dated 13/11/2008
/81/ Statement #115 on coal characteristics dated 17/06/2008
/82/ Statement #1237 on coal characteristics analysis dated 17/06/2008
/83/ Statement #1 on coal characteristics dated 30/01/2009
/84/ Statement #1237 on coal characteristics analysis dated 30/01/2009
/85/ Statement #25 on coal characteristics dated 04/07/2009
/86/ Statement #1237 on coal characteristics analysis dated 04/07/2009
/87/ Statement #50 on coal characteristics dated 10/12/2009
/88/ Statement #1237 on coal characteristics analysis dated 10/12/2009
/89/ Statement #14 on coal characteristics dated 28/03/2010
/90/ Statement #1237 on coal characteristics analysis dated 28/03/2010
/91/ Statement #69 on coal characteristics dated 07/10/2010
/92/ Statement #6475 on coal characteristics analysis dated 07/10/2010
/93/ Statement #61 on coal characteristics dated 31/08/2010
/94/ Statement #1237 on coal characteristics analysis dated 31/08/2010
/95/ Statement #1 on coal characteristics dated 12/01/2011

/96/ Statement #135 on coal characteristics analysis dated 12/01/2011
/97/ Statement #20 on coal characteristics dated 04/06/2011
/98/ Statement #1237 on coal characteristics analysis dated 04/06/2011
/99/ Statement #44 on coal characteristics dated 15/12/2011
/100 Statement #1237 on coal characteristics analysis dated 15/12/2011
/101 Statement #2 on coal characteristics dated 10/02/2012
/102 Statement #1237 on coal characteristics analysis dated 10/02/2012
/103 Statement #8 on coal characteristics dated 12/04/2012
/104 Statement #1237 on coal characteristics analysis dated 12/04/2012
/105 Statement #16 on coal characteristics dated 07/06/2012
/106 Statement #1237 on coal characteristics analysis dated 07/06/2012
/107 Order #23 dated 10/07/2012 on creation of work group creation for JI project implementation
/108 Excel-file "ash content and moisture.xls"
/109 Excel-file "monitoring parameters account.xls"

Persons interviewed:

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

/1/ Tkachov O.M. – director of "Right" LLC
/2/ Bykova O.M. – representative of "Right" LLC
/3/ Dovhal O.A. - representative of "Right" LLC
/4/ Kosoliykin D. – representative of PE "MC "Metropoliya"

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APPENDIX A: DETERMINATION PROTOCOL

DETERMINATION PROTOCOL

Check list for determination, according JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	The title of project is: "Waste Heaps Dismantling of "RIGHT" LLC with the Aim of Decreasing the Greenhouse Gases Emissions into the Atmosphere" *CAR01* Please provide the PDD in line within JI PDD form	CAR01	OK
-	Is the sectoral scope to which the project pertains presented?	The sectoral scope is (8) Mining/mineral production	OK	OK
-	Is the current version number of the document presented?	The current version number is 1.0	OK	OK
-	Is the date when the document was completed presented?	The date when the document was completed is 19/07/2012	OK	OK
Description of the project				
-	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome,	*The situation existing prior to the starting date of the project* Very often it was not economically feasible to extract all 100% of coal from the rock mass. Therefore, waste heaps of Donbas contains a large amount of coal, which is self-ignited later on. All the waste heaps that were self-ignited or the ones that are close to self-ignition are the centre of uncontrolled pollutants and greenhouse gas emissions	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	including a technical description)?	*The baseline scenario* of the proposed project assumes that in practice neglecting of measures for extinguishing waste heaps will continue and they will burn and lead to greenhouse gas (GHG) emissions into the atmosphere until the whole amount of coal will not be burnt in it *Project scenario.* Coal extraction from the mine's waste heaps will prevent greenhouse gas emissions into the atmosphere as if in the case of spontaneous burning and will produce additional amount of coal instead of its mining		
-	Is the history of the project (incl. its JI component) briefly summarized?	The project was initiated in 2004 year. Building of industrial site was started in the second half of 2004. Main equipment installation was initiated in 2007 year	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	Project participants and Parties Involved are listed in the section A.3 *CAR02* Please indicate party-buyer of ERUs in the table 1, section A.3 of the PDD	CAR02	OK
-	Is the data of the project participants presented in tabular format?	The data of the project participants are presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	*CL01* Please add clarifications on mine 17-bis, which is indicated as project participant in the Annex 1 of the PDD	CL01	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	The Host party Ukraine is indicated as the party involved	OK	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Donetsk region	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	City/Town/Community etc.	Makiivka town	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	The geographical coordinates of beneficiation plant is +48° 3' 47.16", +37° 51' 27.14" *CAR03* Please correct section A.4.1.4 that its not exceed one page	CAR03	OK
Technologies to be employed, or measures, operations or actions to be implemented by the project				
-	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	Description of project equipment with technical characteristics is provided in the section A.4.2 *CL02* Please add information on coal content in fraction +50 mm and its following use *CL03* Please add information on class of coal, which is extracted from the waste heap	CL02	OK
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				
-	Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	Emission reductions due to the implementation of this project will come from three major sources: - Removing the source of green-house gas emissions from spontaneous combustion of the waste heap by the extraction of black coal from it; - Removing fugitive methane emissions connected with the mining of black coal by replacing black coal, that would have been mined, by the black coal extracted from the heap under the project activity; - Reducing electrical energy consumption during waste heap dismantling comparing with energy consumption during extraction of the same amount of coal from mine	OK	OK
-	Is it provided the estimation of	The estimations of emission reductions over the	CL04	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emission reductions over the crediting period?	crediting period is provided *CL04* Please explain why value of emission reductions in 2012 is twice a little that achieved in 2011 and 2013 years, and three times as much than in 2008		
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	Estimated annual reductions from 01.01.2008 till 31.12.2020 are provided in tCO2e	OK	OK
-	Are the data from questions above presented in tabular format?	The data from abovementioned questions are provided in the tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	*CAR04* Please indicate in the section A.4.3.1 length of crediting period	CAR04	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	All estimates are provided in tonnes of CO2 equivalent	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	*CAR05* Please correctly indicate date and number of Letter of Endorsement, issued by State Environment Investment Agency of Ukraine *CAR06* Please provide written approvals from both parties involved	CAR05 CAR06	OK Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	Host party (Ukraine) is indicated as a "Party involved"	OK	OK
19	Has the DFP of the host Party issued a written project approval?	See section 19 of this protocol	Pending	Pending
20	Are all the written project approvals by	See section 19 of this protocol	Pending	Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	Parties involved unconditional?			
Authorization of project participants by Parties involved				
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: − A written project approval by a Party involved, explicitly indicating the name of the legal entity? or − Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	See section 19 of this protocol	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	The PDD clearly indicates that JI specific approach was used for baseline establishing	OK	OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	Yes, the detailed complete and transparent theoretical description was provided in the PDD	OK	OK
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant	The baseline scenario was established: (a) five plausible future scenarios were identified on the basis of conservative assumptions, and the most plausible was selected(business-as-usual) (b) relevant actual policies and circumstances are taken into account. Key factors	CAR07 CAR08 CAR09	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	national and/or sectoral policies and circumstance? – Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	influencing the baseline was taken into account (c) in transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors (d) Taking into account of uncertainties and using conservative assumptions (e) ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure (f) list of standard variables is in line within the appendix B to "Guidance on criteria for baseline setting and monitoring" *CAR07* Please indicate in the table 5 that ash content and moisture of extracted coal used for steam coal *CAR08* Please provide correct reference on Emission factor for fugitive methane emissions from coal mining at page 31 *CAR09* Please provide more precise reference on data source for Average consumption of electricity per tonne of extracted coal in Ukraine		
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together	Elements of CDM approved methodology ACM009 version 03.2 were used for leakages calculations in line within section 23 of this protocol. *CAR10* Please indicate version of used monitoring	CAR10	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	with the elements supplementary developed by the project participants in line with 23 above?	methodology ACM0009		
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	The project uses emission factors for baseline calculations, such as, emission factor for electricity consumption, oxidation factor of diesel fuel and steam coal. Proposed factors is in line within the National GHG Inventory report, approved by Ukraine DFP	OK	OK
Approved CDM methodology approach only_Paragraphs 26(a) – 26(d)_Not applicable				
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent	The PDD indicates that approach (b) was used for demonstration of proposed project additionality. Project Waste Heap Dismantling in Luhansk Region of Ukraine with the Aim of Reduction Greenhouse Gases Emissions to Atmosphere» was obtained a positive determination conclusion and used for comparing.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	The PDD provides justification of approach applied	OK	OK
29 (b)	Are additionality proofs provided?	Additionatity is proved in the next follows: a) *GHG mitigation measure*. The project boundary and GHG sources is virtually identical, both project use dry technology for coal beneficiation. Criteria is satisfied b) *Geography and time*. Both projects are implemented in the same country (Ukraine), Donetsk Region, starting dates are identical (01/01/2008). Criteria is satisfied c) *Scale.* The projects envisage production of the same product (coal). d) *Regulatory framework.* There were no significant changes in Ukraine regulatory framework in 2008 year. Criteria is satisfied. *CL05* Please clarify in the section B.2 information on project output for both comparing projects, taking into account time of work in shifts and year production level	CL05	OK
29 (c)	Is the additionality demonstrated	*CAR11*	CAR11	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriately as a result?	Please provide sub-step 2b in the section B.2 in line with section 12 "Guidance of criteria for baseline setting and monitoring"		
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	The approach 29(b) was chosen	OK	OK
Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable				
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	The project boundaries defined in the PDD encompass all anthropogenic emissions by GHG sources that are - Under control of the project participants, such as emissions of electricity and diesel fuel consumption during waste heap dismantling - Reasonably attributable to the project, such as emissions from waste heap burning or methane emissions as result of coal industry - Significant *CAR12* Big quantities of rock mass containing the certain part of coal are processed during the project activity. Please provide evidences that scraps of the processing wastes don't influence on level of emissions in project scenario. Also, please proof that fugitive methane emissions from beneficiated coal saving on the enrichment plant is negligible	CAR12	OK
32 (b)	Is the project boundary defined on the	The project boundary is defined on the basis of a	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	case-by-case assessment with regard to the criteria in 32(a) above		
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of project boundaries and gases and sources excluded is clearly described in the section B.3 of the PDD (see figures 7-9), using flow charts.	OK	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	*CAR13* Please correct exclusion of CH4 in the table 13 section "Leakages"	CAR13	OK
Approved CDM methodology approach only_Paragraph 33_ Not applicable				
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	PDD indicates that the starting date of the project is 11/06/2007 – the start of project equipment installation *CAR14* Please indicate reference on the document that proof starting date of the project	CAR14	OK
34 (a)	Is the starting date after the beginning of 2000?	11/06/2007 is after the 2000 beginning	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	The expected operational lifetime of the project is 13 years 6 months		
34 (c)	Does the PDD state the length of the crediting period in years and months?	Length of crediting period is indicated in 5 years (60 months)	OK	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the	*CAR15* Please clarify when the first emission reductions were achieved	CAR15	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	project?			
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	Crediting period for ERUs issuance starts 01/01/2008 – after the beginning of 2008	OK	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	The crediting period doesn't extends beyond the 2012 year	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	The PDD explicitly indicates that JI specific approach is used	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	The monitoring plan describes all relevant factors and key characteristics that will be monitored, such as: - Value of beneficiated coal mass - electricity and fuel consumed in project activity; - oxidation factors for diesel fuel and coal - emission factors for electricity consumption	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		All decisive factors for control of project implementation are described. The period in which they will be monitored are indicated, frequency of measuring procedures is identified All decisive factors for the control and reporting of project performance are described		
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	The monitoring plan specify the indicators, constants and variables used, that are reliable, valid and provide transparent picture of the emission reductions to be monitored	OK	OK
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	Standard values used for emission calculations are indicated in the table 14 in the PDD. These values are obtained from recognized sources, supported by statistical analyses providing reasonable confidence levels and demonstrated in transparent manner	OK	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	For monitored data provided by the project participants monitoring plan identify selection and justification	OK	OK
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken?	References on values obtained from sources another from indicated above is provided. Conservativeness of this value is justified	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− Is the conservativeness of the values provided justified?			
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	*CAR16* Please provide descriptions of procedures to be followed if expected data are unavailable	CAR16	OK
36 (b) (iv)	Are International System Unit (SI units) used?	Soma units of International System Unit (SI units) are used		
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	The monitoring plan clearly indicate next parameters that obtained through monitoring but used for baseline calculations - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heap because of the project activity - net Calorific Value of coal - Oxidation factor of coal - carbon content of coal - the average ash content of sorted fractions - the average humidity of sorted fractions	OK	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	The use of parameters, coefficients, variables is consistent between the baseline and the monitoring plan	OK	OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	The monitoring plan was drawn in accordance with the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"	OK	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not	*CAR17* Please provide in the monitoring plan division of parameters in the next items	CAR17	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination (iii) Data and parameters that are monitored throughout the crediting period		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The monitoring plan clearly describes the methods employed for data monitored, such as direct measuring with metering devices and laboratory samples, account from bookkeeper invoices; frequency of monitoring procedures and recording	OK	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	The monitoring plan elaborates all formulae required to baseline and project emissions adjusted by leakages calculation in the section D	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formulae is explained	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	All variables, equation formats, subscripts are used in consistent way	OK	OK
36 (f) (iii)	Are all equations numbered?	All equations are numbered	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	All variables with units are indentified	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the procedures are justified	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level in key parameters identified as low in table D.2 "Quality control and quality assurance procedures undertaken for data monitored".	OK	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	Consistency between the elaboration of baseline scenario and the procedure for emission calculation in the baseline are justified	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	The monitoring plan contains detailed explanation of each part of formulae	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	*CAR18* Please provide evidences that used procedure is in line with standard technical procedures in the relevant sector	CAR18	OK
36 (f) (vii)	Are references provided as necessary?	The references are provided in relevant points	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	The explicit and implicit key assumptions are explained in transparent manner	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant	In the project design document there is not stated any information about significant uncertainty level	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	uncertainty associated with them, and how such uncertainty is to be addressed?	of assumptions and procedures.		
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	The uncertainty level of parameters monitored is indicated in the section D.2, quality control and quality assurance procedures. The uncertainty level of parameters monitored is indicated as low	OK	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	There are not national or international monitoring standards which can be applied to this project type	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	The monitoring plan used a group of statistical data, used in conservative manner. Fuel and energy resources of Ukraine, Statistical Yearbook, issued by State Statistics Committee of Ukraine, and Report on the fire risk of Donetsk Region's waste heaps, Scientific Research Institute "Respirator" were used for project calculations	OK	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information	*CAR19* Please provide information on calibration of project measuring equipment	CAR19	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?			
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The monitoring plan clearly identifies the responsibilities and the authorities regarding the monitoring activities, see please section D.3 of the PDD	OK	OK
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	The monitoring plan is identical to monitoring plans in JI projects implemented at SIA "Antracit", SIA "Monolit", "Temp" LLC etc, determined by Global Carbon B.V.	OK	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	The monitoring plan provides in tabular form a complete compilation of the data collected and required for emission reduction calculation, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations	OK	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	*CAR20* Please indicate that the data monitored and required for ERUs calculations will be kept two years after the last ERUs transfer	CAR20	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for	Elements of CDM methodology ACM0009 were used for estimation of leakages related to the project, in line within section 36 of this protocol	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?			
Approved CDM methodology approach only_Paragraphs 38(a) – 38(d)_Not applicable				
Applicable to both JI specific approach and approved CDM methodology approach_Paragraph 39_Not applicable				
Leakage				
JI specific approach only				
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	The PDD appropriately describes in the section B an assessment of project leakages, and appropriately explains inclusion or exclusion of leakages	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	Procedure for ex-ante estimations of leakages are described in the section B and D of the PDD	OK	OK
OKApproved CDM methodology approach only_Paragraph 41_Not applicable				
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	The PDD indicates that assessment of emissions in the baseline scenario and in the project scenario was chosen	OK	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project	The PDD provides estimates of: (a) Emissions for the project scenario, which is 13525 tonnes of CO2 equivalent for 01/01/2008-31/12/2012 and 21680 tonnes of CO2 equivalent for 01/01/2013-	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	31/12/2020 (b) Leakages, which is -492315 tonnes of CO2 equivalent for 01/01/2008-31/12/2012 and -775 304 tonnes of CO2 equivalent for 01/01/2013-31/12/2020 (c) Emissions for the baseline scenario which is 1 723 771 tonnes of CO2 equivalent for 01/01/2008-31/12/2012 and 2 743 320 tonnes of CO2 equivalent for 01/01/2013-31/12/2020 (d) Emission reduction adjusted by leakage, which is 2 202 561 tonnes of CO2 equivalent for 01/01/2008-31/12/2012 and 3 496 944 tonnes of CO2 equivalent for 01/01/2013-31/12/2020		
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	See section 42 of this protocol	OK	OK
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period?	a) The estimates are given on (i) on a yearly basis (ii) from 01/02/2008 till 30/09/2012 (iii) On a source-by-source/sink-by-sink basis (i) for each GHG, which are CH4 and CO2 (ii) in tonnes of CO2 equivalent	CAR21	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based	(iii)using global warming potentials defined by decision 2/CP.3 (b) The formula used for calculating in 43 is consistent throughout the PDD (c) The 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 for calculating estimates in 43 (d) The data sources used for calculating the estimates in 43 are clearly identified, reliable and transparent. (e) emission factors used for calculations in 43 are in line with National GHG Inventory Report approved by Ukrainian DFP (f) The estimations in 43 are based on conservative assumptions and the most plausible scenarios in a transparent manner (g) the estimates in 43 are consistent throughout the PDD (h) the annual average value of estimated emission reductions is calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve. *CAR21* Please provide average annual emission reductions		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Ex-post calculations are provided for 2008-2011 years. PDD contains illustrative ex-ante calculations till 2020 year	OK	OK
Approved CDM methodology approach only_Paragraphs 47(a) – 47(b)_Not applicable				
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	The PDD provides analysis of environmental impacts in accordance with actual Ukrainian rules. Environmental impact assessment, as a part of work project is note in the section F. Environmental impact assessment was provided to the project in 2008 year	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does	The PDD provides conclusion on Environmental impact assessment undertaken in accordance with requirements of the Host Party	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?			
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	Host Party doesn't require public consultations with local stakeholders. Project owners presented project for local authorities and obtained positive opinion (permit on beneficiation plant building, etc). Local stakeholders were informed by newspaper "Allo, Makiivka" #48(68) dated 23/12/2007. Any comments were obtained	OK	OK
Determination regarding small-scale projects (additional elements for assessment)_Paragraphs 50 - 57_Not applicable				
Determination regarding land use, land-use change and forestry projects _Paragraphs 58 – 64(d)_Not applicable				
Determination regarding programmes of activities_Paragraphs 66 – 73_Not applicable				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR01 Please provide the PDD in line within JI PDD form	-	Corrected. Relevant changes were introduced to PDD version 2.0 dated 03.08.2012 (hereinafter - PDD).	The issue is closed based on corrections of PDD
CAR02 Please indicate party-buyer of ERUs in the table 1, section A.3 of the PDD	-	Buyer's country (the Netherlands) is indicated in Table 1 of Section A.3 of PDD.	The issue is closed based on corrections of PDD
CAR03 Please correct section A.4.1.4 that its not exceed one page	-	Corrected. Relevant changes were introduced to PDD.	The issue is closed based on corrections of PDD
CAR04 Please indicate in the section A.4.3.1 length of crediting period	-	In Section A.4.3.1 the length of the crediting period is indicated in Tables 3 and 4. The length of the crediting period in years and months for the first commitment period under the Kyoto Protocol is highlighted separately. Relevant changes were introduced to PDD.	The issue is closed based on corrections of PDD
CAR05 Please correctly indicate date and number of Letter of Endorsement, issued by State Environment Investment Agency of Ukraine	19	Letter of endorsement No. 2023/23/7 dated 27/07/2012 was issued by the State Environment Investment Agency. Relevant changes were introduced to PDD, Section A.5.	The issue is closed based on corrections of PDD

CAR06 Please provide written approvals from both parties involved	19	In accordance with the established procedures, written approval from the participating parties will be provided after completion of the determination process. Necessary information is given in Section A.5. of PDD.	Pending
CAR07 Please indicate in the table 5 that ash content and moisture of extracted coal used for steam coal	23	Clarification was indicated. Relevant changes were introduced to PDD.	The issue is closed based on corrections of PDD
CAR08 Please provide correct reference on Emission factor for fugitive methane emissions from coal mining at page 31	23	Reference was corrected and indicated more accurately. Relevant changes were introduced to PDD.	The issue is closed based on corrections of PDD
CAR09 Please provide more precise reference on data source for Average consumption of electricity per tonne of extracted coal in Ukraine	23	Reference was corrected and indicated more accurately. Relevant changes were introduced to PDD.	The issue is closed based on corrections of PDD
CAR10 Please indicate version of used monitoring methodology ACM0009	24	Version of methodology was specified. Relevant changes were introduced to Section B.1. of PDD.	The issue is closed based on corrections of PDD
CAR11 Please provide sub-step 2b in the section B.2 in line with section 12 "Guidance of criteria for baseline setting and monitoring"	29 (c)	Project development document was corrected. Relevant changes were introduced to Section B.2. of PDD.	The issue is closed based on corrections of PDD

CAR12 Big quantities of rock mass containing the certain part of coal are processed during the project activity. Please provide evidences that scraps of the processing wastes don't influence on level of emissions in project scenario. Also, please proof that fugitive methane emissions from beneficiated coal saving on the enrichment plant is negligible	32 (a)	The purpose of the project activity is processing waste heaps and extracting carbon from the rock mass. Sorted fraction with high carbon content is used for energy purposes in national economy. Beneficiation waste is inert rock mass, which has very low carbon content. In addition from beneficiation wastes waste heap of flat shape is formed, that does not cause erosion and can effectively monitor the state of the heap. Due to these factors the possibility of emissions creation as a result of heaps burning from beneficiation wastes is excluded. Emission factors in the form of consumption of fuel and electricity for treating beneficiation wastes (export, warehousing, etc.) are already included in the calculation of the project emissions, as the whole volume of fuel and electricity consumption by enterprise is taken into account. Methane emissions from beneficiated coal, which is stored at the site of the project implementation, are neglected, as this coal are already degassed during initial extraction from the mine and further storage in the heap. In any case, the volume of coal that would have been extracted in the baseline scenario would undergo the same storage and transportation, resulting the same emissions. Therefore, this potential source of emissions is neglected and is such source of emissions that does not affect the calculation of emission reductions under the project.	The issue is closed based on information, provided by project developer

CAR13 Please correct exclusion of CH4 in the table 13 section "Leakages"	32 (d)	Corrected. Changes are introduced to Section B.3. of PDD.	The issue is closed based on corrections of PDD
CAR14 Please indicate reference on the document that proof starting date of the project	34 (a)	The relevant reference was specified. Starting date of the project is November 16, 2006 - approval of the location of installation for waste heaps processing. This date is fixed in the act of land selection and survey dated 16.11.2006 (Please see. Section C.1 of PDD). Document was provided in the form of supporting document No. 1	The issue is closed based on corrections of PDD
CAR15 Please clarify when the first emission reductions were achieved	34 (c)	The beginning of emission reductions under the project was specified. (Please see. Section C.3 of PDD).	The issue is closed based on corrections of PDD

CAR16 Please provide descriptions of procedures to be followed if expected data are unavailable	36 (b) (iii)	For data and parameters, monitoring of which is not implemented during the whole crediting period, and the values are determined only once (and remain constant during the whole crediting period) and are available or unavailable at the stage of determination of PDD, the values specified in PDD are taken. If the available updated data, then the latest most accurate data (e. g. of the previous period) are used. For data and parameters which are monitored during the whole crediting period, standard procedures in this sector for each data type are used. For example, cross-checking with suppliers and consumers, receiving calculated values, averaging etc. In each case, changing the method of receiving data will be recorded and displayed in the monitoring report. Changes are introduced to Section D.1. of PDD.	The issue is closed based on information, provided by project developer

CAR17 Please provide in the monitoring plan division of parameters in the next items (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination (iii) Data and parameters that are monitored throughout the crediting period	36 (d)	Relevant data separation is introduced in PDD. Changes are introduced to Section D.1. of PDD.	The issue is closed based on corrections of PDD

CAR18 Please provide evidences that used procedure is in line with standard technical procedures in the relevant sector	36 (f) (vii)	Used monitoring procedure is in accordance with the standard procedures for projects of this type and prevailing practice in the sector. These 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*; UA2000034 Processing of waste heaps at Monolith-Ukraine†. Approach to the monitoring in this project fully meets standard ones in the sector and includes monitoring of amount of coal extracted from the waste heap, of the amount of fuel consumed in the project and of the amount of electricity consumed in the project. Additional parameters of monitoring (ash and water content of coal extracted from the heaps, emission factors, etc.) are used to improve the accuracy of the monitoring and correspond the used approach for baseline setting and monitoring in the project. Relevant explanations are included in Section D.1. of PDD.	The issue is closed based on corrections of PDD

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

CAR19 Please provide information on calibration of project measuring equipment	36 (i)	Calibration of measuring equipment will be performed periodically, in accordance with technical regulations of the Host country. Calibration should be carried out by authorized representatives of the State Metrological System of Ukraine. Relevant explanations and information on the calibration periods are included in Section D.1. of PDD.	The issue is closed based on corrections of PDD
CAR20 Please indicate that the data monitored and required for ERUs calculations will be kept two years after the last ERUs transfer	36 (m)	Documents and other data monitored and required for determination and verification, as well as any other data that are to be monitored and are necessary for verification must be kept for two years after the last transfer of ERUs within the project. Relevant explanations are included in Section D.1. of PDD.	The issue is closed based on corrections of PDD
CAR21 Please provide average annual emission reductions	45	Average annual calculated emission reductions values are provided in Tables 3 and 4 of PDD and in Sections E.5 and E.6 of PDD. Information is also available in the calculated Excel file.	The issue is closed based on corrections of PDD

CL01 Please add clarifications on mine 17-bis, which is indicated as project participant in the Annex 1 of the PDD	-	The mine #17-17 "bis" is not a project participant. Its name is present in Annex 1 of PDD as the address of "RIGHT" LLC, which is a project participant and is located in the building of profkom of the mentioned mine. This information is provided in transparent manner in Annex 1 of PDD.	The issue is closed based on clarifications, provided by project developer
CL02 Please add information on coal content in fraction +50 mm and its following use	-	Percentage of coal of +50mm fraction is low after beneficiation plant because of the modern technology of coal and rock separation. This parameter is not specifically controlled, but the technology provides its safe value. The fraction of +50mm is inert mass which is the waste of the main production in this project and is directed to recultivation and formation of a new flat heap, the state of which is controlled. Relevant explanations are included in Section A.4.2. of PDD.	The issue is closed based on clarifications, provided by project developer
CL03 Please add information on class of coal, which is extracted from the waste heap	-	From the waste heap coal of class 0-50mm is extracted, what is indicated in Section A.4.2 of PDD. Thermal coal of anthracite and gas brand groups will be extracted from the waste heap under the project; they will be used as energy raw materials for energy generation at thermal power plants. Relevant explanations are included in Section A.4.2. of PDD.	The issue is closed based on clarifications, provided by project developer

CL04 Please explain why value of emission reductions in 2012 is twice a little that achieved in 2011 and 2013 years, and three times as much than in 2008	-	Data on expected emission reductions by years reflect the impact of several factors. In this project, emission reductions directly proportionally depend upon the amount of coal extracted from the the waste heaps. Availability of coal in the waste heaps and its percentage relatively to the total rock mass of the heap is not a constant value and depends on the age of the part of the heap, which is processed, the characteristics of rocks that form it, the historical conditions of the heap existence. In this project in 2008, part of the waste heaps with high content of coal compared to other waste heaps and other parts of the heaps was processed. Also in 2008, more intensive production temp was set, resulting in receipt of the bigger amount of coal and greater emission reductions. In 2008 there was high demand for this coal products. This is caused by the stability of economic situation in the country at that time. In 2009, the first global financial crisis began, because of which the demand for products decreased besides effect of government regulation on the coal market increased. The difference in expected emission reductions in 2011, 2012 and 2013 years is explained by transition to the dismantling of another group of heaps from 2013 and the ending stage of heap processing, which is expected in 2012. That is why in 2012 the amount of reductions is almost twice lower than in 2011 and 2013 will be achieved.	The issue is closed based on clarifications, provided by project developer

CL05 Please clarify in the section B.2 information on project output for both comparing projects, taking into account time of work in shifts and year production level	29 (b)	Proposed project has annual capacity of 756 thousand tons of rock mass with two-shift work and the length of shift in 8 hours (the number of working days per year - 315). Comparable project has capacity of 100 tons of rock mass per hour that corresponds the annual capacity of 504 tons under the same conditions. In other words annual capacity of the proposed project does not exceed the annual capacity of comparable project more than on 50%. Relevant explanations are included in Section B.2. of PDD.	The issue is closed based on clarifications, provided by project developer