DETERMINATION REPORT "INVESTECOGROUP" LTD

DETERMINATION OF THE WASTE HEAPS COAL EXTRACTION BY TECHNOANTHRACITE LTD.

BUREAU VERITAS CERTIFICATION

REPORT NO. UKRAINE-DET/0318/2011

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Client:	**Client ref.:**
"InvestEcoGroup" Ltd	Volodimir Kozlenko

Summary:

Bureau Veritas Certification has made the determination of the "Waste heaps coal extraction by Technoanthracite Ltd." project of "InvestEcoGroup" Ltd located in Sverdlovsk town, Luhansk 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 Actions Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

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

Report No.:	Subject Group:
UKRAINE-det/0318/2011	JI

Project title:
Waste heaps coal extraction by Technoanthracite Ltd.

Work carried out by:
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1 INTRODUCTION

"InvestEcoGroup" Ltd has commissioned Bureau Veritas Certification to determine its JI project "Waste heaps coal extraction by Technoanthracite Ltd." (hereafter called "the project") at Sverdlovsk town, Luhansk 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 emissions reductions units (ERUs).

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

1.2 Scope

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

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

1.3 Determination team

The determination team consists of the following personnel:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

Vyacheslav Yeriomin
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 "InvestEcoGroup" Ltd 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, "InvestEcoGroup" Ltd revised the PDD and resubmitted it on 01/12/2011.

The determination findings presented in this report relate to the project as described in the PDD versions 1.0, 2.0, 2.1.

2.2 Follow-up Interviews

On 31/08/2011 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Technoanthracite Ltd were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Technoanthracite Ltd	• Project history • Project approach • Project boundary • Implementation schedule • Organizational structure • Responsibilities and authorities • Training of personnel • Quality management procedures and technology • Rehabilitation/Implementation of equipment (records) • Metering equipment control • Metering record keeping system, database • Technical documentation • Monitoring plan and procedures • Permits and licenses • Local stakeholder's response.
"InvestEcoGroup" Ltd	• Baseline methodology • Monitoring plan • Additionality proofs • Calculation of emission reduction.

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 verification protocol in Appendix A.

3 PROJECT DESCRIPTION

The main area of coal mining is the Donetsk Basin. Donetsk Basin's coal is mainly situated at medium depths of 400-800 m. The average thickness of coal beds is around 0,6-1,2 m. Therefore, coal is mined at Donbas mainly by mining. Most mines develop beds at the depth of 400-800 m; however, 35 mines of the region mine the coal from the horizon of 1000-1300 m. Coal-beds in Donetsk basin are interleaved with rock and usually are found every 20-40 m. Coal mining in such conditions leads to rise of large amounts of coal containing rock mass discharge to the surface. Coal is separated from the rock mass, which forms a huge coal containing waste heaps. The process of coal extraction at the coal mines was never effective.

In the past, 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. According to different estimations, the rock mass, which is mined from the coal mine, contains only around 65-70% of coal, while the rest is a waste. Up to 60% of this rock mass is formed in coal containing waste heaps. According to experts' estimations, percentage of combustible substances in the coal containing waste heaps is around 15-30%, when at the same time the coal content varies from 7% and till 28-32%.

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. Harmful substances herewith include sulphurous anhydride that turns into sulphur acid, which causes sulphur rains together with

hydrogen sulphide and carbon monoxide discharge. Groundwater is polluted by small particles of rock during the contact with coal containing waste heaps. As the result, acidity and hardness of water rises. The erosion processes often lead to fracture of waste heaps, which pollute surrounding areas with dust containing harmful substances (e.g. sulphur). Over time, erosion can lead to complete destruction of waste heaps or massive landslide, which is dangerous both in terms of direct damage to people and property, as well as huge dust and harmful substances emissions into the atmosphere. Erosion also increases the probability of waste heaps self-ignition. The process of carbon combustion in the waste heaps is quite continuous and lasts from 5 to 7 years.

Taking into account that the first coal containing waste heap was located near the special coal extraction plant, during years 2008-2009 the coal containing waste heaps mass is directly transported by the bulldozers to the special coal extraction plant.

At the first stage the coal containing waste heaps mass is loaded in the ground tunnel. The coal containing mass is then transported through vibrating feed unit, conveyor belt and metal separation unit to the separator. After that, the separated fraction of +50 mm is transported through conveyor (installed in the gallery for additional coal separation) to a newly formed flat rock mass formation in order to enable future usage of lands vacated from waste heaps. The fraction of 0-50 mm is transported for further coal extraction.

At the second stage, the coal containing waste heaps mass (fraction of 0-50 mm) is supplied to the special coal extraction plant for further dressing and processing. The selection of the main equipment was performed in accordance with recommendations of the Ukrainian Coal Enrichment Institute. The complete coal enrichment cycle process in heavy media is performed in the premises of coal extraction plant. The process is performed by mixing waste heap mass with magnetic suspension. As a result of this, the separation of processing material into coal concentrate and rock mass is performed due to the influence of centrifugal force. It is envisaged to equip the coal extraction unit with necessary blocking and alarm systems, emergency disconnection systems and sensors of performance control. Production process at this unit is automatic. The end product is coal concentrate in fractions of 0-10 mm, 10-25 mm and 25-50 mm. Sorted coal, obtained within the project activity is delivered to consumers for further consumption.

After the processing, the remains of rock mass are also transported to a newly formed flat rock mass formation in order to enable future usage of lands vacated from waste heaps.

Taking into account that the first coal containing waste heap was fully dressed and processed and also that the second waste heap is located on a 14 km distance from the special coal extraction plant, starting from the August 2010 the coal containing waste heaps mass is separated by a slightly different separation technology which is described below.

1) Coal containing waste heaps mass is transported to the sorting units by the bulldozers in order to conduct further separation process of coal containing waste heaps mass on specific fractions.
2) Excavator Hyundai 360 is used for coal containing waste heaps mass with its further load to receivers of mobile sorting units.
3) Sorting complex for coal containing waste heaps processing is used to separate the coal containing waste heaps on different fractions of 0-50 mm and +50-120 mm Kleemann MS 19Z and Kleemann MS 16Z.
4) After the coal containing waste heaps are sorted by fractions of 0-50 mm and +50-120 mm, the coal containing waste heaps mass of 0-50 mm fraction is loaded by frontal loaders Hyundai HL760-7A in the bulldozers and transported to the coal extraction plant for further dressing and processing of coal containing waste heaps.
5) The coal containing waste heaps mass (fraction of +50-120 mm) is loaded by frontal loaders Hyundai HL770-7A in the dump trucks and transported to the newly flat rock mass formation. After finalisation of old coal containing waste heap processing and forming the new one, the territory that will be released from the coal containing waste heaps will be reclaimed and planted with grass.

All technologies used for coal extraction from the waste heaps are typical and used in the other plants, hence no weaknesses are expected.
The project objective is to reduce anthropogenic greenhouse gas emissions into the atmosphere. Moreover, the project will contribute to improvement of ecological situation at the enterprise.
The mentioned above objective to be achieved by coal extraction from coal containing waste heaps in order to prevent CO2e emissions into the atmosphere which are occurring as the result of waste heaps spontaneous burning and also to obtain additional quantities of coal. An important result of waste heaps coal extraction with further processing of the waste heaps mass is the exclusion of unfavourable ecological impacts of the waste heaps (dust emissions, greenhouse gas emissions, harmful gases and pollutants emissions, polluted waste water discharge from the surface of the waste heaps into the environment). Waste heaps coal extraction and the usage of the rock mass enables further reclamation of the renewed land from the waste heaps and efficient economical use of the area, which is restored for construction needs. On the 23rd of June 2006 project documentation development regarding waste heaps coal extraction plant was initiated in order to achieve the result under the project activity.
Coal extracted from the waste heaps will substitute the coal from the mines and will be used mainly for energy production purposes at coal-fired power plants. Coal mining is a source of the fugitive emissions of methane; therefore, the project activity will reduce methane emissions by reducing the amount of coal required to be mined.
Emission reductions due to the implementation of this project will come from two major sources:

• Removing the source of green-house gas emissions from the combustion of waste heaps by the extraction of coal from the waste-heaps;
• Reduced fugitive emissions of methane due to the replacement of coal that would have been mined by the project.

Waste heaps are sources of uncontrolled green-house gas emissions, hazardous substances emissions, particle emissions, ground water contamination. Addressing problems of waste heaps is costly and is not addressed in a systematic way in Ukraine. Efforts to stop burning of waste heaps and break them down completely are in line with the existing environmental legislation of Ukraine. The proposed project ispositively evaluated by local authorities.

CARs (CAR01-CAR07) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

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 20 Corrective Action Requests and 3 Clarification Requests.

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

4.1 Project approvals by Parties involved (19-20)

The project has already received Letter of Endorsement № 2810/23/7 on the JI project “Waste heaps coal extraction by Technoanthracite Ltd.” dated 28/09/2011 issued by National Environmental Investment Agency of Ukraine.

Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.

As for the time being no written approvals of the project by Parties involved are available. After receiving Determination Report from the Accredited Independent Entity the project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environmental Investment Agency of Ukraine, for receiving a Letter of Approval. The written approval by another Parties involved will be obtained later on.

CARs (CAR08, CAR09) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

4.2 Authorization of project participants by Parties involved (21)

The official authorization of each legal entity listed as project participant in the PDD by Parties involved will be provided in the written project approvals (refer to 4.1 above).

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) Identifying and listing alternatives to the project activity on the basis of conservative assumptions and taking into account uncertainties.

b) Identifying the most plausible alternatives considering relevant sectoral policies and circumstances, such as economic situation in the steel sector in Ukraine and other key factors that may affect the baseline. The baseline is identified by screening of the alternatives based on the technological and economic considerations for the project developer, as well as on the prevailing technologies and practices in Ukrainian fuel industry at the time of the investment decision.

The alternatives have been identified based on national practice and reasonable assumptions with regard to the sectoral legislation and reform, economic situation in the country, availability of raw materials and fuel as well as technologies and logistics etc..

There are five alternatives for proposed project activity

Scenario 1. Continuation of existing situation

In the current situation waste heaps are not utilised. Spontaneous self-heating and subsequent burning of waste heaps is very common and measures to extinguish fire are taken sporadically. Burning waste heaps are sources of uncontrolled greenhouse gas emissions. Coal is not extracted from the waste heaps. Coal is produced by underground mines of the region and used for energy production or other purposes. Coal

mining activities cause emissions of fugitive methane and also the formation of new waste-heaps.

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

Waste heaps are not extinguished and not monitored properly. Some burning heaps are used to produce energy by direct insertion of heat exchangers into the waste heap. This captures a certain amount of heat energy for direct use or conversion into electricity. The coal is not extracted from the waste heaps. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities, resulting in fugitive gas release, and the formation of more waste-heaps.

Scenario 3. Production of construction materials from waste heap matter

Waste heaps are being processed in order to produce construction materials (bricks, panels, etc.). Coal in the waste heap matter is burnt during the agglomeration process. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities, resulting in fugitive gas release, and the formation of more waste-heaps.

Scenario 4. Coal extraction from waste heaps without JI incentives

This scenario is similar to the project activity only in this case the project does not benefit from the possible development as a joint implementation project. In this scenario waste heaps are processed in order to extract coal and used it the energy sector. Less coal is produced by underground mines of the region.

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

Waste heaps are systematically monitored and their thermal condition is researched. Regular fire prevention measures are taken. In case of a burning waste heap, the fire is extinguished and measures are taken to prevent burning in the future. Coal is not extracted from the waste heaps. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities resulting in fugitive gas release, and the formation of more waste-heaps.

Existing Ukrainian laws and regulations treat waste heaps as sources of possible dangerous emissions into the atmosphere. In general burning waste heaps should be extinguished and measures must be taken to prevent fires in the future. However, due to the large numbers of waste heaps and their substantial sizes, combined with the limited resources of the owners, they typically do not even undertake the minimum required regular monitoring. Even when informed of a burning waste heap, and measures have to be taken under existing legislation, it is more typical to

accept the fine for air contamination, rather than take action to extinguish the burning waste heap itself.
In such circumstances it is safe to say that all scenarios do not contradict existing laws and regulations.

All scenarios, except Scenario 1 - Continuation of existing situation, face prohibitive barriers. Therefore, continuation of existing situation is the most plausible future scenario and is the baseline scenario.

The most recent determined project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" which is published on the UNFCCC JI website at http://ji.unfccc.int/UserManagement/FileStorage/IE7LK2SZF1NOXRVB4CYG65WQPJMHA3 is applied to prove that the anthropogenic emissions are reduced below those that would have occurred in the absence of the JI project. The above mentioned project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" has same GHG mitigation measure, same country, similar technology, and similar scale.

CARs (CAR10), CLs (CL01) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

4.4 Additionality (27-31)

The most recent version of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board was used, in accordance with the JI specific approach, defined in paragraph 2 (c) of the annex I to the "Guidance on criteria for baseline setting and monitoring". All explanations, descriptions and analyses are made in accordance with the selected tool.

In the present project the developer is applying approach B stipulated by the annex 1 of the Guidance For Criteria On Baseline Setting And Monitoring, which allows proving additionality by referring to the comparable project which has already passed determination. In this case the authors refer to the project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere".

In order these projects could be considered comparable the following criteria specified by the article 12 of the Guidance shall be met:

(a) **GHG mitigation measure.** The project boundary of the proposed project and the other project(s) encompass similar sources of GHG emissions and the emission reductions are achieved by similar measures; and

The project boundary is virtually identical; the expected average annual GHG emissions reductions differ only by 2%. Criteria is satisfied.

(b) **Geography and time.** The proposed project and the other project(s) are hosted by the same Party and the period of time between starting dates of the proposed and the other project(s) is not more than five years; and
The project is implemented in the same region of Ukraine; the starting dates are divided by less than 1.5 years. Criteria is satisfied.

(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; and
The projects envisage production of the same product (coal), average annual coal outputs for both projects differ by merely 8%. Criteria is satisfied.

(d) **Regulatory framework.** Between the starting dates of the proposed project and the other project(s) the regulatory framework
There were no significant changes in regulatory framework between the starting dates of two projects. Criteria is satisfied.

Basing on the considerations above we can make conclusion that approach B can be employed in order to prove the additionality of the project and the reference to the comparable project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" is valid.

4.5 Project boundary (32-33)

Project boundaries include the sources of all significant greenhouse gases emissions that are under control of the project participants and connected with project activity, namely coal containing waste heaps masses that is purchased by Technoanthracite Ltd. At the same time, some sources of GHG emissions are indirect – fugitive methane emissions as the result of coal mining in Ukraine, CO2e emissions due rock mass transporting on tracks, CO2e emissions due to the consumption of power from the Ukrainian electricity grid, as a result of electricity generation using fossil fuels.

Based on the above assessment, the AIE hereby confirms that the identified boundary and the selected sources and gases are justified for the project activity.

CARs (CAR11-CAR12) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

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 01/01/2008, 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 or 156 months.

The PDD states the length of the crediting period in years and months, which is 13 years (156 months), and its starting date as 01/01/2008, which is on the date the first emission reductions or enhancements of net removals are generated by the project.

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

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

CLs (CL02, CL03) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

4.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach was 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, in particular also all decisive factors for the control and reporting of project performance, such as statistics reporting forms; quality control (QC) and quality assurance (QA) procedures; detailed guidelines regulating the monitoring procedures and responsibilities; the Investment Plan giving a schedule of construction activities; the operational and management structure that will be applied in implementing the monitoring plan.
The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. be clearly connected with the effect to be measured), and that provide a

transparent picture of the emission reductions or enhancements of net removals to be monitored such as volume of extracted fuel, quantity of electric energy consumed for coal extraction, emission factor for electricity and heavy fuel oil consumption.

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 Probability of waste heaps self-ignition, emission factor for fugitive methane emissions from coal mining, carbon content of coal, etc.

(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 is absent.

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

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as direct measurement with scales; heavy fuel oil and electricity meters; calculations with different recording frequency such as continuously or monthly and electronic or paper recording method.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions and project emissions from the project, leakage, as appropriate.

Baseline emissions are calculated as follows:

$$BE_y = BE_{coal,y} + BE_{CH4,y} + BE_{WHS,y}$$

where:
BE_y - Baseline emissions, tCO2e per year;
$BE_{coal,y}$ - Baseline emissions as a result of coal consumption for energy production needs, tCO2e per year;
$BE_{CH4,y}$ - Baseline emissions as a result of uncontrolled emissions of methane during extraction works, tCO2e per year;
$BE_{WHS,y}$ - Baseline emissions as a result of coal containing waste heaps self-ignition, tCO2e per year.

$$BE_{coal,y} = FC_{BE,coal,y}/1000 \times NCV_{coal} \times OXID_{coal} \times k^{C}_{coal} \times 44/12$$

where:
$FC_{BE,coal,y}$ - Amount of coal that has been mined under the baseline scenario and combusted for energy needs (equal to the amount of coal extracted from the waste heaps under the project line scenario in the year *y*), tonnes;
NCV_{coal} - Net calorific value for coal, TJ/kt;
$OXID_{coal}$ - Carbon oxidation factor of coal, %;
k^{C}_{coal} - Carbon content of coal, tC/TJ;
44/12 - Ratio between molecular mass of CO2e and C. Reflects oxidation of C to CO2e.

$$BE_{CH4,y} = FC_{BE,coal,y} \times EF_{CH4,CM} \times \rho_{CH4} \times GWP_{CH4}$$

where:
$EF_{CH4,CM}$ - Emission factor for methane emissions as the result of coal mining (m^3/t). The parameter is equal to 25,67 m^3/t in accordance with National GHG inventory of Ukraine, period 1990-2009;
ρ_{CH4} - Density of methane, t/m^3;
GWP_{CH4} - Global warming potential of methane, tCO2e/tCH_4.

$$BE_{WHS,y} = FC_{BE,coal,y}/1000 \times P_{WHS} \times NCV_{coal} \times OXID_{coal} \times k^{C}_{coal} \times 44/12$$

where:
$FC_{BE,coal,y}$ - Amount of coal that has been mined under the baseline scenario and combusted for energy needs (equal to the amount of coal extracted from the waste heaps under the project line scenario in the year *y*), tonnes;
P_{WHS} - Probability of waste heaps self-ignition. The parameter is in accordance with report regarding waste heaps self-ignition probability in Lughansk region and is defined as the ratio between waste heaps that are or have been self ignited historically and all existing waste heaps in Lughansk region. This ratio is equal to 0,699, ratio;
NCV_{coal} - Net calorific value for coal, TJ/kt;
$OXID_{coal}$ - Carbon oxidation factor of coal, %;
k^{C}_{coal} - Carbon content of coal, tC/TJ;
44/12 - Ratio between molecular mass of CO2e and C. Reflects oxidation of C to CO2e.

Project emissions are calculated as follows:

$$PE_y = PE_{coal,y} + PE_{electricity,y} + PE_{diesel,y}$$

where:
PE_y - Project emissions, tCO2e per year;
$PE_{coal,y}$ - Project emissions as a result of coal consumption for energy needs under the project line scenario, tCO2e per year;

$PE_{electricity,y}$ - Project emissions as a result of electricity consumption from the grid under the project line scenario, tCO2e per year;
$PE_{diesel,y}$ - Project emissions as a result of diesel fuel consumption under the project line scenario, tCO2e per year.

$$PE_{coal} = FC_{PE,coal,y} / 1000 \times NCV_{coal} \times OXID_{coal} \times k^{C}_{coal} \times 44/12$$

where:
$FC_{PE,coal,y}$ - Amount of coal that has been extracted from the waste heaps under the project line scenario and combusted for energy needs (in the year y), tonnes;
NCV_{coal} - Net calorific value for coal, TJ/kt;
$OXID_{coal}$ - Carbon oxidation factor of coal, %;
k^{C}_{coal} - Carbon content of coal, tC/TJ;
44/12 - Ratio between molecular mass of CO2e and C. Reflects oxidation of C to CO2e.

$$PE_{electricity,y} = EC_{PE,y} \times EF_{CO2e,electricity,y}$$

where:
$EC_{PE,y}$ - Amount of electricity consumed under the project line scenario (in the year $_y$), MWh;
$EF_{CO2e,electricity,y}$ - Emission factor for electricity consumption from the grid under the project line scenario, tCO2e/MWh.

$$PE_{diesel,y} = FC_{PE,diesel,y} / 1000 \times NCV_{diesel} \times OXID_{diesel} \times k^{c}_{diesel} \times 44/12$$

where:
$FC_{PE,diesel,y}$ - Amount of diesel fuel consumed under the project line scenario (in the year y), tonnes;
NCV_{diesel} - Net calorific value for diesel, TJ/kt;
$OXID_{diesel}$ - Carbon oxidation factor of diesel, %;
k^{c}_{diesel} - Carbon content of diesel, tC/TJ;
44/12 - Ratio between molecular mass of CO2e and C. Reflects oxidation of C to CO2e.

Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y$$

Where:
ER_y - Emissions reductions of the JI project in year y (tCO2e);
BE_y - Baseline Emission in year y (tCO2e);
PE_y - Project Emission in year y (tCO2e).

The monitoring plan presents the quality assurance and control procedures for the monitoring process which is described in 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.

Monitoring plan clearly indicates sources of information used for project activity calculation. Inititally data on value and quality of produced coal, track's load, diesel fuel consumption, waste heap mass quantity is obtained from logbooks of relevant workshops. The data on electricity consumed is obtained from monthly reports of Regional Electric Network.

The data required to monitor JI project is routinely collected within the normal operations of the "Technoantracite Ltd" therefore JI monitoring is integral part of routine monitoring.

The monitoring plan will be implemented by different specialists of the enrichment fabric "Technoantracite Ltd" under supervision of the technical director of the Plant. All main production shops and specialists of the plant will be involved into the preparation of monitoring report under coordination of the "Technoantracite Ltd" director.

The monitoring plan indicates default values, such as carbon emission factors for electricity consumption in appropriately way. "Technoantracite" LLC is II class consumer in accordance with order #1052 dated 13/08/1999 issued by National Electricity Regulation Comission of Ukraine.

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 "Technoantracite" LLC work equipment is not changed during project implementation, so special trainings are not needed.

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.

CARs (CAR13-CAR18) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

4.8 Leakage (40-41)

The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains which sources of leakage are to be calculated, and which can be neglected, such as NO_2.

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 or net removals for the project scenario (within the project boundary), which are 634 495 tons of CO2e for period 2008-2012 and 1 062 800 tons of CO2e for period 2013-2020 years;

(b) Leakage, which are absent;

(c) Emissions or net removals for the baseline scenario (within the project boundary), which are 1 135 393 tons of CO2e for period 2008-2012 and 1 854 800 tons of CO2e for period 2013-2020 years;

(d) Emission reductions or enhancements of net removals adjusted by leakage (based on (a)-(c) above), which are 500 898 tons of CO2e for period 2008-2012 years and 792 000 tons of CO2e for period 2013-2020 years;

The estimates referred to above are given:

(a) On a annually basis;

(b) From 01/01/2008 to 31/12/2020, covering the whole crediting period;

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

(d) For each GHG gas, which are CO2

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

The formula used for calculating the estimates referred above, which are the same as those used for project monitoring and described in the section 4.7 are consistent throughout the PDD.

For calculating the estimates referred to above, key factors, e.g. energy prices and availability, market development influencing the baseline emissions 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 feasibility studies, production forecasts, actual historical monitored data are clearly identified, reliable and transparent.

Emission factors, such as emission factor for electricity consumption, emission factor for heavy fuel oil, 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 or enhancements of net removals over the crediting period by the total months of the crediting period, and multiplying by twelve.

CARs (CAR19, CAR20) and their resolutions/conclusions applicable to project description are listed in the APPENDIX A: DETERMINATION PROTOCOL (Table 2) below.

4.10 Environmental impacts (48)

The Host Party for this project is Ukraine. Environmental Impact Assessment (EIA) is the part of the Ukrainian project planning and permitting procedures. Implementation regulations for EIA are included in the Ukrainian State Construction Standard DBN A.2.2.-1-95 (amended 2003) (Title: "Structure and Contents of the Environmental Impact Assessment Report (EIR) for Designing and Construction of Production Facilities, Buildings and Structures").

The full scope EIA in accordance with the Ukrainian legislation has been conducted for the proposed project in 2005-2006 by the local developer SPE “Company Nature”. Key findings of this EIA are summarized in section F.1 of the PDD.

The section F.1 of 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.

4.11 Stakeholder consultation (49)

Law of Ukraine on environmental expertise defines the procedure of participation of citizens and public organizations in the public environmental expertise.

Public has been informed about the planned economic activities with the goal to identify public attitudes and take opinion in account during environmental impact assessment process. Public was informed about the project, especially about the following information:

· project name, goals and site;
· legal name and address of project owner and its representative;
· approximate dates of EIAs procedures;
· deadline and formats of submission of public comments;
· when and where EIA documents can be retrieved.

No negative comments from the public were received within the deadlines indicated in these publications. Public hearings have not been organized.

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 coal extraction by Technoanthracite Ltd.” Project in Sverdlovsk town, Luhansk 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 review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. 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 Type the name of the company that relate directly to the GHG components of the project.

/1/ Project Design Document "Waste heaps coal extraction by Technoanthracite Ltd." version 1.0 dated 01/06/2011
/2/ Project Design Document "Waste heaps coal extraction by Technoanthracite Ltd." version 2.0 dated 01/10/2011
/3/ Project Design Document "Waste heaps coal extraction by Technoanthracite Ltd." version 2.1 dated 01/12/2011
/4/ Letter of Endorsement #2810/23/7 dated 28/09/2011 issued by State Environmental Investment Agency of Ukraine
/5/ Excel calculation file "20110825_ER_Technoatracit_draft_ver1_en_fin1"
/6/ Excel calculation file "20111205_ER_Technoatracit_PDD_ver2.1"

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

/1/ Goods (coal) delivery note #PH-0000084 dated 21/10/2010
/2/ Goods (coal) delivery note #PH-0000122 dated 30/11/2010
/3/ Goods (coal) delivery note #PH-0000121 dated 29/11/2010
/4/ Goods (coal) delivery note #PH-0000120 dated 28/11/2010
/5/ Goods (coal) delivery note #PH-0000119 dated 27/11/2010
/6/ Goods (coal) delivery note #PH-0000118 dated 26/11/2010
/7/ Goods (coal) delivery note #PH-0000117 dated 25/11/2010
/8/ Goods (coal) delivery note #PH-0000116 dated 24/11/2010
/9/ Goods (coal) delivery note #PH-0000115 dated 22/11/2010
/10/ Goods (coal) delivery note #PH-0000114 dated 21/11/2010
/11/ Goods (coal) delivery note #PH-0000113 dated 20/11/2010
/12/ Goods (coal) delivery note #PH-0000112 dated 19/11/2010
/13/ Goods (coal) delivery note #PH-0000111 dated 18/11/2010
/14/ Goods (coal) delivery note #PH-0000110 dated 17/11/2010
/15/ Goods (coal) delivery note #PH-0000109 dated 16/11/2010
/16/ Goods (coal) delivery note #PH-0000108 dated 15/11/2010
/17/ Goods (coal) delivery note #PH-0000107 dated 14/11/2010
/18/ Goods (coal) delivery note #PH-0000106 dated 13/11/2010
/19/ Goods (coal) delivery note #PH-0000105 dated 10/11/2010
/20/ Goods (coal) delivery note #PH-0000104 dated 09/11/2010
/21/ Goods (coal) delivery note #PH-0000102 dated 08/11/2010
/22/ Goods (coal) delivery note #PH-0000101 dated 07/11/2010
/23/ Goods (coal) delivery note #PH-0000100 dated 06/11/2010
/24/ Goods (coal) delivery note #PH-0000099 dated 05/11/2010
/25/ Goods (coal) delivery note #PH-0000098 dated 04/11/2010
/26/ Goods (coal) delivery note #PH-0000097 dated 03/11/2010

/27/ Goods (coal) delivery note #PH-0000096 dated 02/11/2010
/28/ Goods (coal) delivery note #PH-0000152 dated 31/12/2010
/29/ Goods (coal) delivery note #PH-0000151 dated 30/12/2010
/30/ Goods (coal) delivery note #PH-0000150 dated 29/12/2010
/31/ Goods (coal) delivery note #PH-0000149 dated 28/12/2010
/32/ Goods (coal) delivery note #PH-0000148 dated 27/12/2010
/33/ Goods (coal) delivery note #PH-0000147 dated 26/12/2010
/34/ Goods (coal) delivery note #PH-0000146 dated 25/12/2010
/35/ Goods (coal) delivery note #PH-0000145 dated 24/12/2010
/36/ Goods (coal) delivery note #PH-0000144 dated 23/12/2010
/37/ Goods (coal) delivery note #PH-0000143 dated 22/12/2010
/38/ Goods (coal) delivery note #PH-0000142 dated 21/12/2010
/39/ Goods (coal) delivery note #PH-0000141 dated 20/12/2010
/40/ Goods (coal) delivery note #PH-0000140 dated 19/12/2010
/41/ Goods (coal) delivery note #PH-0000139 dated 18/12/2010
/42/ Goods (coal) delivery note #PH-0000138 dated 17/12/2010
/43/ Goods (coal) delivery note #PH-0000137 dated 16/12/2010
/44/ Goods (coal) delivery note #PH-0000136 dated 15/12/2010
/45/ Goods (coal) delivery note #PH-0000134 dated 14/12/2010
/46/ Goods (coal) delivery note #PH-0000133 dated 13/12/2010
/47/ Goods (coal) delivery note #PH-0000132 dated 12/12/2010
/48/ Goods (coal) delivery note #PH-0000131 dated 11/12/2010
/49/ Goods (coal) delivery note #PH-0000130 dated 10/12/2010
/50/ Goods (coal) delivery note #PH-0000129 dated 09/12/2010
/51/ Goods (coal) delivery note #PH-0000128 dated 08/12/2010
/52/ Goods (coal) delivery note #PH-0000127 dated 07/12/2010
/53/ Goods (coal) delivery note #PH-0000126 dated 05/12/2010
/54/ Goods (coal) delivery note #PH-0000125 dated 04/12/2010
/55/ Goods (coal) delivery note #PH-0000124 dated 04/12/2010
/56/ Goods (coal) delivery note #PH-0000123 dated 02/12/2010
/57/ Goods (diesel fuel) delivery note #03274 dated 30/12/2010
/58/ Goods (diesel fuel) delivery note #03245 dated 28/12/2010
/59/ Goods (diesel fuel) delivery note #102055 dated 28/12/2010
/60/ Stock (diesel fuel) delivery note #03245 dated 28/12/2010
/61/ Conformity certificate #164533 Series BB dated 11/03/2010, valid till 10/03/2012 (diesel fuel)
/62/ Quality passport #198-3 dated 22/12/2008
/63/ Goods (diesel fuel) delivery note #03233 dated 27/12/2010
/64/ Invoice #102044 dated 24/12/2010 (diesel fuel)
/65/ Goods (diesel fuel) delivery note #03199 dated 22/12/2010
/66/ Invoice #102031 dated 21/12/2010 (diesel fuel)
/67/ Invoice #102023 dated 17/12/2010 (diesel fuel)
/68/ Goods (diesel fuel) delivery note #03128 dated 15/12/2010
/69/ Goods (diesel fuel) delivery note #03113 dated 13/12/2010
/70/ Goods (diesel fuel) delivery note #03086 dated 09/12/2010
/71/ Goods (diesel fuel) delivery note #03067 dated 07/12/2010
/72/ Goods (diesel fuel) delivery note #03041 dated 03/12/2010

/73/ Goods (diesel fuel) delivery note #03021 dated 01/12/2010
/74/ Delivery note #923/1 dated 27/12/2010 (diesel fuel)
/75/ Billing statement #910/1 dated 20/12/2010 (diesel fuel)
/76/ Delivery note #897/1 dated 13/12/2010 (diesel fuel)
/77/ Delivery note #895 dated 10/12/2010 (diesel fuel)
/78/ Delivery note #14 dated 06/12/2010 (diesel fuel)
/79/ Project documentation
/80/ Invoice #498 dated 31/08/2010
/81/ Invoice #498P dated 31/08/2010
/82/ Invoice #498 dated 30/09/2010
/83/ Invoice #498P dated 30/09/2010
/84/ Invoice #498 dated 31/10/2010
/85/ Invoice #498P dated 30/10/2010
/86/ Invoice #498 dated 30.10.2010
/87/ Invoice #498 dated 31.12.2010
/88/ Invoice #498P dated 31/12/2010
/89/ Photo – Finished product storage
/90/ Photo – Bulldozer earthmover
/91/ Photo – Debris dump
/92/ Photo – Control panel
/93/ Photo – Unitized transformer substation 10 kV
/94/ Photo – Mnemonic diagram of coal benefication process in heavy medium
/95/ Photo – Control and video surveillance system
/96/ Photo – Coal-preparing plant automatic control system
/97/ Photo – Wet purification crasher
/98/ Photo – Pulp output
/99/ Photo – Cyclone separator
/100/ Photo – technological water filtration system
/101/ Devices line scheme
/102/ Passport #560 on strain-gauge balance
/103/ Operational manual 607.00.00.004 РЭ on weighting on scales ВЭТ-70К, ВЭТ-100К
/104/ Incoming product sorting logbook
/105/ Wastes register
/106/ Invoices register, started 19/08/2010
/107/ Loader operation register
/108/ Trips register, started 01/08/2011
/109/ Operation time register, started 23/06/2011
/110/ Certificate #906530 dated 25/12/2007 Series CAB on real estate ownership
/111/ Calibration certificate dated 30/07/2000 on active power meter type СА4У-И672Д, serial #639556
/112/ Calibration certificate dated 30/07/2000 on reactive power meter type СА4У-И673М, serial #654493
/113/ Calibration certificate dated 30/07/2000 on active power meter type EPQS, serial #638061

/114/ Calibration certificate dated 30/07/2000 on reactive power meter type SL7000, serial #36118794
/115/ Commercial agent report #1-27/05-11К dated 30/06/2008
/116/ Turnover balance sheet according to the bill #361 for May 2008
/117/ Goods (coal) delivery note #PH-0000046 dated 13/05/2008
/118/ Goods (coal) delivery note #PH-0000045 dated 12/05/2008
/119/ Goods (coal) delivery note #PH-0000044 dated 11/05/2008
/120/ Goods (coal) delivery note #PH-0000043 dated 08/05/2008
/121/ Goods (coal) delivery note #PH-0000042 dated 07/05/2008
/122/ Goods (coal) delivery note #PH-0000041 dated 06/05/2008
/123/ Goods (coal) delivery note #PH-0000040 dated 05/05/2008
/124/ Turnover balance sheet according to the bill #361 for April 2008
/125/ Goods (coal) delivery note #PH-0000039 dated 30/04/2008
/126/ Goods (coal) delivery note #PH-0000037 dated 24/04/2008
/127/ Goods (coal) delivery note #PH-0000038 dated 28/04/2008
/128/ Goods (coal) delivery note #PH-0000035 dated 17/04/2008
/129/ Goods (coal) delivery note #PH-0000036 dated 22/04/2008
/130/ Goods (coal) delivery note #PH-0000034 dated 16/04/2008
/131/ Goods (coal) delivery note #PH-0000033 dated 15/04/2008
/132/ Goods (coal) delivery note #PH-0000031 dated 10/04/2008
/133/ Goods (coal) delivery note #PH-0000032 dated 11/04/2008
/134/ Goods (coal) delivery note #PH-0000030 dated 09/04/2008
/135/ Goods (coal) delivery note #PH-0000029 dated 07/04/2008
/136/ Goods (coal) delivery note #PH-0000028 dated 05/04/2008
/137/ Goods (coal) delivery note #PH-0000027 dated 04/04/2008
/138/ Goods (coal) delivery note #PH-0000026 dated 03/04/2008
/139/ Turnover balance sheet according to the bill #361 for March 2008
/140/ Goods (coal) delivery note #PH-0000018 dated 03/03/2008
/141/ Goods (coal) delivery note #PH-0000019 dated 06/03/2008
/142/ Goods (coal) delivery note #PH-0000020 dated 12/03/2008
/143/ Goods (coal) delivery note #PH-0000021 dated 14/03/2008
/144/ Goods (coal) delivery note #PH-0000022 dated 20/03/2008
/145/ Goods (coal) delivery note #PH-0000023 dated 24/03/2008
/146/ Goods (coal) delivery note #PH-0000024 dated 26/03/2008
/147/ Goods (coal) delivery note #PH-0000025 dated 27/03/2008
/148/ Turnover balance sheet according to the bill #361 for February 2008
/149/ Goods (coal) delivery note #PH-0000010 dated 11/02/2008
/150/ Goods (coal) delivery note #PH-0000011 dated 12/02/2008
/151/ Goods (coal) delivery note #PH-0000012 dated 15/02/2008
/152/ Goods (coal) delivery note #PH-0000013 dated 21/02/2008
/153/ Goods (coal) delivery note #PH-0000014 dated 22/02/2008
/154/ Goods (coal) delivery note #PH-0000015 dated 26/02/2008
/155/ Goods (coal) delivery note #PH-0000016 dated 27/02/2008
/156/ Goods (coal) delivery note #PH-0000017 dated 28/02/2008
/157/ Turnover balance sheet according to the bill #361 for January 2008
/158/ Goods (coal) delivery note #PH-0000009 dated 31/01/2008

/159/ Goods (coal) delivery note #PH-0000008 dated 30/01/2008
/160/ Goods (coal) delivery note #PH-0000007 dated 29/01/2008
/161/ Goods (coal) delivery note #PH-0000006 dated 25/01/2008
/162/ Goods (coal) delivery note #PH-0000005 dated 23/01/2008
/163/ Goods (coal) delivery note #PH-0000004 dated 21/01/2008
/164/ Goods (coal) delivery note #PH-0000003 dated 18/01/2008
/165/ Goods (coal) delivery note #PH-0000002 dated 16/01/2008
/166/ Goods (coal) delivery note #PH-0000001 dated 14/01/2008
/167/ Goods (coal) delivery note #PH-0000016 dated 31/05/2008
/168/ Goods (coal) delivery note #PH-0000015 dated 30/05/2008
/169/ Goods (coal) delivery note #PH-0000014 dated 29/05/2008
/170/ Goods (coal) delivery note #PH-0000013 dated 28/05/2008
/171/ Goods (coal) delivery note #PH-0000012 dated 27/05/2008
/172/ Goods (coal) delivery note #PH-0000011 dated 26/05/2008
/173/ Goods (coal) delivery note #PH-0000010 dated 23/05/2008
/174/ Goods (coal) delivery note #PH-0000009 dated 22/05/2008
/175/ Goods (coal) delivery note #PH-0000008 dated 21/05/2008
/176/ Goods (coal) delivery note #PH-0000007 dated 20/05/2008
/177/ Goods (coal) delivery note #PH-0000006 dated 19/05/2008
/178/ Goods (coal) delivery note #PH-0000005 dated 17/05/2008
/179/ Goods (coal) delivery note #PH-0000004 dated 16/05/2008
/180/ Goods (coal) delivery note #PH-0000003 dated 15/05/2008
/181/ Goods (coal) delivery note #PH-0000002 dated 14/05/2008
/182/ Turnover balance sheet according to the bill #361 for May 2008
/183/ Goods (coal) delivery note #PH-0000029 dated 25/06/2008
/184/ Goods (coal) delivery note #PH-0000028 dated 23/06/2008
/185/ Goods (coal) delivery note #PH-0000027 dated 15/06/2008
/186/ Goods (coal) delivery note #PH-0000026 dated 12/06/2008
/187/ Goods (coal) delivery note #PH-0000025 dated 11/06/2008
/188/ Goods (coal) delivery note #PH-0000024 dated 10/06/2008
/189/ Goods (coal) delivery note #PH-0000023 dated 09/06/2008
/190/ Goods (coal) delivery note #PH-0000022 dated 06/06/2008
/191/ Goods (coal) delivery note #PH-0000021 dated 05/06/2008
/192/ Goods (coal) delivery note #PH-0000020 dated 03/06/2008
/193/ Goods (coal) delivery note #PH-0000019 dated 02/06/2008
/194/ Goods (coal) delivery note #PH-0000030 dated 10/06/2008
/195/ Commercial agent report #1-20/06-08 dated 30/06/2008
/196/ Statement #1 dated 24/06/2008 on acceptance-transmitting for commission
/197/ Commercial agent report #1-27/06-08 dated 30/06/2008
/198/ Statement #1 dated 27/06/2008 on acceptance-transmitting for commission
/199/ Goods (coal) delivery note #PH-0000055 dated 20/07/2008
/200/ Goods (coal) delivery note #PH-0000053 dated 16/07/2008
/201/ Goods (coal) delivery note #PH-0000052 dated 15/07/2008
/202/ Goods (coal) delivery note #PH-0000051 dated 14/07/2008
/203/ Goods (coal) delivery note #PH-0000048 dated 07/07/2008

/204/ Goods (coal) delivery note #PH-0000047 dated 03/07/2008
/205/ Goods (coal) delivery note #PH-0000054 dated 17/07/2008
/206/ Goods (coal) delivery note #PH-0000050 dated 11/07/2008
/207/ Goods (coal) delivery note #PH-0000049 dated 09/07/2008
/208/ Goods (coal) delivery note #PH-0000046 dated 01/07/2008
/209/ Goods (coal) delivery note #PH-0000043 dated 24/07/2008
/210/ Goods (coal) delivery note #PH-0000042 dated 24/07/2008
/211/ Goods (coal) delivery note #PH-0000041 dated 18/07/2008
/212/ Goods (coal) delivery note #PH-0000040 dated 18/07/2008
/213/ Goods (coal) delivery note #PH-0000045 dated 11/07/2008
/214/ Goods (coal) delivery note #PH-0000044 dated 10/07/2008
/215/ Commercial agent report #1-17/06-9K dated 31/07/2008
/216/ Statement #1 dated 20/07/2008 on acceptance-transmitting for commission
/217/ Commercial agent report #2-20/06-08 dated 31/07/2008
/218/ Commercial agent report #2-27/06-08 dated 31/07/2008
/219/ Statement #2 dated 04/07/2008 on acceptance-transmitting for commission
/220/ Statement #4 dated 17/07/2008 on acceptance-transmitting for commission
/221/ Statement #5 dated 18/07/2008 on acceptance-transmitting for commission
/222/ Statement #6 dated 19/07/2008 on acceptance-transmitting for commission
/223/ Statement #7 dated 20/07/2008 on acceptance-transmitting for commission
/224/ Statement #8 dated 22/07/2008 on acceptance-transmitting for commission
/225/ Statement #9 dated 25/07/2008 on acceptance-transmitting for commission
/226/ Statement #10 dated 30/07/2008 on acceptance-transmitting for commission
/227/ Turnover balance sheet according to the bill #361 for August 2008
/228/ Goods (coal) delivery note #PH-0000072 dated 06/08/2008
/229/ Invoice # СФ-0000011 dated 06/08/2008
/230/ Goods (coal) delivery note #PH-0000073 dated 14/08/2008
/231/ Invoice # СФ-0000012 dated 14/08/2008
/232/ Commercial agent report #3-27/06-08 dated 31/08/2008
/233/ Statement #11 dated 28/08/2008 on acceptance-transmitting for commission
/234/ Statement #12 dated 30/08/2008 on acceptance-transmitting for commission
/235/ Statement #13 dated 31/08/2008 on acceptance-transmitting for commission
/236/ Commercial agent report #3-20/06-08 dated 29/08/2008
/237/ Statement #3 dated 06/08/2008 on acceptance-transmitting for commission

/238/ Goods (coal) delivery note #PH-0000074 dated 19/08/2008
/239/ Goods (coal) delivery note #PH-0000075 dated 20/08/2008
/240/ Agreement #498 dated09/08/2010 on energy supply
/241/ Commercial agent report #2-17/06-9K dated 15/09/2008
/242/ Statement #13 dated 08/09/2008 on acceptance-transmitting for commission
/243/ Statement #14 dated 08/09/2008 on acceptance-transmitting for commission
/244/ Goods (coal) delivery note #PH-0000092 dated 12/09/2008
/245/ Goods (coal) delivery note #PH-0000078 dated 08/09/2008
/246/ Goods (coal) delivery note #PH-0000077 dated 06/09/2008
/247/ Goods (coal) delivery note #PH-0000076 dated 05/09/2008
/248/ Goods (coal) delivery note #PH-0000095 dated 03/09/2008
/249/ Commercial agent report #4-20/06-08 dated 30/09/2008
/250/ Statement #4 dated 18/09/2008 on acceptance-transmitting for commission
/251/ Commercial agent report #4-27/06-08 dated 30/09/2008
/252/ Statement #14 dated 06/09/2008 on acceptance-transmitting for commission
/253/ Statement #15 dated 14/09/2008 on acceptance-transmitting for commission
/254/ Statement #16 dated 19/09/2008 on acceptance-transmitting for commission
/255/ Statement #17 dated 22/09/2008 on acceptance-transmitting for commission
/256/ Statement #18 dated 24/09/2008 on acceptance-transmitting for commission
/257/ Statement #19 dated 30/09/2008 on acceptance-transmitting for commission
/258/ Goods (coal) delivery note #PH-0000093 dated 22/09/2008
/259/ Goods (coal) delivery note #PH-0000094 dated 29/09/2008
/260/ Goods delivery note #H2215 dated 14/10/2008 (diesel fuel)
/261/ Stock delivery note #H2215 dated 14/10/2008 (diesel fuel)
/262/ Goods delivery note #H2135 dated 06/10/2008 (diesel fuel)
/263/ Conformity certificate #614494 Series ДЗ dated 28/01/2008, valid till 22/03/2011 (diesel fuel)
/264/ Passport #1039 dated 20/09/2008 on diesel fuel
/265/ Stock delivery note #H2135 dated 06/10/2008 (diesel fuel)
/266/ Invoice #H1646 dated 06/10/2008
/267/ Agreement #66/09-08CT dated 03/09/2008
/268/ Agreement #1p-01 dated 04/01/2011
/269/ Agreement #6/01-09CT dated 05/01/2009
/270/ Goods delivery note #PH-0000025 dated 30/08/2010 (coal)
/271/ Goods delivery note #PH-0000023 dated 30/08/2010 (coal)
/272/ Goods delivery note #PH-0000024 dated 30/08/2010 (coal)
/273/ Goods delivery note #PH-0000022 dated 30/08/2010 (coal)
/274/ Goods delivery note #PH-0000018 dated 28/08/2010 (coal)

/275/ Goods delivery note #PH-0000020 dated 27/08/2010 (coal)
/276/ Goods delivery note #PH-0000021 dated 27/08/2010 (coal)
/277/ Goods delivery note #PH-0000019 dated 27/08/2010 (coal)
/278/ Goods delivery note #PH-0000017 dated 27/08/2010 (coal)
/279/ Goods delivery note #PH-0000016 dated 25/08/2010 (coal)
/280/ Goods delivery note #PH-0000011 dated 21/08/2010 (coal)
/281/ Goods delivery note #PH-0000014 dated 25/08/2010 (coal)
/282/ Goods delivery note #PH-0000012 dated 23/08/2010 (coal)
/283/ Goods delivery note #PH-0000010 dated 21/08/2010 (coal)
/284/ Goods delivery note #PH-0000015 dated 25/08/2010 (coal)
/285/ Goods delivery note #PH-0000013 dated 23/08/2010 (coal)
/286/ Goods delivery note #PH-0000009 dated 21/08/2010 (coal)
/287/ Goods delivery note #PH-0000008 dated 19/08/2010 (coal)
/288/ Goods delivery note #PH-0000007 dated 25/08/2010 (coal)
/289/ Goods delivery note #PH-0000006 dated 23/08/2010 (coal)
/290/ Goods delivery note #PH-0000005 dated 21/08/2010 (coal)
/291/ Goods delivery note #PH-0000004 dated 19/08/2010 (coal)
/292/ Goods delivery note #PH-0000060 dated 30/09/2010 (coal)
/293/ Goods delivery note #PH-0000059 dated 29/09/2010 (coal)
/294/ Goods delivery note #PH-0000058 dated 28/09/2010 (coal)
/295/ Goods delivery note #PH-0000057 dated 27/09/2010 (coal)
/296/ Goods delivery note #PH-0000056 dated 26/09/2010 (coal)
/297/ Goods delivery note #PH-0000055 dated 25/09/2010 (coal)
/298/ Goods delivery note #PH-0000054 dated 24/09/2010 (coal)
/299/ Goods delivery note #PH-0000053 dated 23/09/2010 (coal)
/300/ Goods delivery note #PH-0000052 dated 23/09/2010 (coal)
/301/ Goods delivery note #PH-0000051 dated 22/09/2010 (coal)
/302/ Goods delivery note #PH-0000050 dated 21/09/2010 (coal)
/303/ Goods delivery note #PH-0000049 dated 20/09/2010 (coal)
/304/ Goods delivery note #PH-0000048 dated 19/09/2010 (coal)
/305/ Goods delivery note #PH-0000047 dated 18/09/2010 (coal)
/306/ Goods delivery note #PH-0000046 dated 17/09/2010 (coal)
/307/ Goods delivery note #PH-0000045 dated 16/09/2010 (coal)
/308/ Goods delivery note #PH-0000044 dated 15/09/2010 (coal)
/309/ Goods delivery note #PH-0000043 dated 14/09/2010 (coal)
/310/ Goods delivery note #PH-0000042 dated 13/09/2010 (coal)
/311/ Goods delivery note #PH-0000039 dated 12/09/2010 (coal)
/312/ Goods delivery note #PH-0000038 dated 10/09/2010 (coal)
/313/ Goods delivery note #PH-0000037 dated 09/09/2010 (coal)
/314/ Goods delivery note #PH-0000036 dated 09/09/2010 (coal)
/315/ Goods delivery note #PH-0000035 dated 08/09/2010 (coal)
/316/ Goods delivery note #PH-0000034 dated 08/09/2010 (coal)
/317/ Goods delivery note #PH-0000033 dated 08/09/2010 (coal)
/318/ Goods delivery note #PH-0000032 dated 07/09/2010 (coal)
/319/ Goods delivery note #PH-0000031 dated 05/09/2010 (coal)
/320/ Goods delivery note #PH-0000030 dated 03/09/2010 (coal)
/321/ Goods delivery note #PH-0000029 dated 03/09/2010 (coal)

/322/ Goods delivery note #PH-0000028 dated 01/09/2010 (coal)
/323/ Goods delivery note #PH-0000027 dated 01/09/2010 (coal)
/324/ Goods delivery note #PH-0000095 dated 31/10/2010 (coal)
/325/ Goods delivery note #PH-0000094 dated 30/10/2010 (coal)
/326/ Goods delivery note #PH-0000093 dated 28/10/2010 (coal)
/327/ Goods delivery note #PH-0000092 dated 27/10/2010 (coal)
/328/ Goods delivery note #PH-0000091 dated 26/10/2010 (coal)
/329/ Goods delivery note #PH-0000090 dated 25/10/2010 (coal)
/330/ Goods delivery note #PH-0000089 dated 24/10/2010 (coal)
/331/ Goods delivery note #PH-0000088 dated 23/10/2010 (coal)
/332/ Goods delivery note #PH-0000087 dated 22/10/2010 (coal)
/333/ Goods delivery note #PH-0000086 dated 21/10/2010 (coal)
/334/ Goods delivery note #PH-0000085 dated 20/10/2010 (coal)
/335/ Goods delivery note #PH-0000081 dated 19/10/2010 (coal)
/336/ Goods delivery note #PH-0000080 dated 18/10/2010 (coal)
/337/ Goods delivery note #PH-0000079 dated 17/10/2010 (coal)
/338/ Goods delivery note #PH-0000078 dated 16/10/2010 (coal)
/339/ Goods delivery note #PH-0000077 dated 14/10/2010 (coal)
/340/ Goods delivery note #PH-0000071 dated 12/10/2010 (coal)
/341/ Goods delivery note #PH-0000070 dated 11/10/2010 (coal)
/342/ Goods delivery note #PH-0000069 dated 09/10/2010 (coal)
/343/ Goods delivery note #PH-0000068 dated 08/10/2010 (coal)
/344/ Goods delivery note #PH-0000067 dated 07/10/2010 (coal)
/345/ Goods delivery note #PH-0000066 dated 06/10/2010 (coal)
/346/ Goods delivery note #PH-0000065 dated 04/10/2010 (coal)
/347/ Goods delivery note #PH-0000064 dated 03/10/2010 (coal)
/348/ Goods delivery note #PH-0000063 dated 02/10/2010 (coal)
/349/ Goods delivery note #PH-0000062 dated 01/10/2010 (coal)
/350/ Goods delivery note #PH-0000072 dated 11/10/2010 (coal)
/351/ Goods delivery note #PH-0000073 dated 13/10/2010 (coal)
/352/ Goods delivery note #PH-0000074 dated 14/10/2010 (coal)
/353/ Goods delivery note #PH-0000075 dated 15/10/2010 (coal)
/354/ Goods delivery note #PH-0000076 dated 16/10/2010 (coal)
/355/ Goods delivery note #PH-0000082 dated 19/10/2010 (coal)
/356/ Goods delivery note #PH-0000083 dated 20/10/2010 (coal)
/357/ Photo – waste heap
/358/ Photo – burn out waste heap
/359/ Photo – Mobile sorting unit (sieve)
/360/ Photo – used waste heap mass new flat rock formation

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/ Natalia Ulinets - Director of “Technoantracite” LLC
/2/ Vadim Kuras – Vice-Director of “Technoantracite” LLC
/3/ Serhiy Kosyakov – Technical Director of “Technoantracite” LLC
/4/ Oleh Konovalov - Technical Director of “Technoantracite” LLC
/5/ Denys Doroshenko – Vice-Head of Separation Producing Unit of of “Technoantracite” LLC
/6/ Volodymyr Ivanov – Head Mechanic of “Technoantracite” LLC
/7/ Oleksandr Storozhenko – Vice-Head of Recording Department
/8/ Tetyana Stryzhevska – Head Bookkeeper of “Technoantracite” LLC
/9/ Alla Antonenko – Bookkeeper of “Technoantracite” LLC
/10/ Ruslan Holdenberg – Director of “Promsoyz” LLC
/11/ Airat Khakimzyanov – representative of “InvestEcoGroup” Ltd

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APPENDIX A: COMPANY PROJECT 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 coal extraction by Technoanthracite Ltd."	OK	OK
-	Is the sectoral scope to which the project pertains presented?	The sectoral scope of the project is 8. Mining/mineral production	OK	OK
-	Is the current version number of the document presented?	The current version of the PDD is 1	OK	OK
-	Is the date when the document was completed presented?	The date when the Project Design Document is completed is 01/06/2011	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, including a technical description)?	The main goal of the project is coal extraction from coal containing waste heaps in order to prevent CO2e emissions into the atmosphere which are occurring as the result of waste heaps spontaneous burning and also to obtain additional quantities of coal. *Corrective Action Request 01* Please clearly formulate main goal of the project in	CAR01 CAR02	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		the section A.2 *Corrective Action Request02* Please describe in the section A.2 of the PDD next follows: a) situation existing before the starting date of the project b) baseline scenario c) project scenario including a technical description and expected outcome		
-	Is the history of the project (incl. its JI component) briefly summarized?	*Corrective Action Request 03* Please, briefly summarise the history of the project including its JI component	CAR03	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	The project participants such as "Technoantracite" Ltd and the Party Involved Ukraine are listed in the PDD *Corrective Action Request 04* Please indicate second Party involved	CAR04	OK
-	Is the data of the project participants presented in tabular format?	The data of project participants is presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	*Corrective Action Request 05* Please provide in Annex 1 more detailed information about project participants	CAR05	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	Ukraine is indicated as the Host Party	OK	OK
Technical description of the project				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Luhansk region	OK	OK
-	City/Town/Community etc.	Sverdlovsk town	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	*Corrective Action Request 06* Please provide section A.4.1.4 that it doesn't exceed one page	CAR06	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?	The first coal containing waste heap was located near the special coal extraction plant, during years 2008-2009 the coal containing waste heaps mass is directly transported to the special coal extraction plant. Now, the coal containing mass is transported through vibrating feed unit, conveyor belt and metal separation unit to the separator. After that, the separated fraction of +50 mm is transported through conveyor (installed in the gallery for additional coal separation) to a newly formed flat rock mass formation in order to enable future usage of lands vacated from waste heaps. The fraction of 0-50 mm is transported for further coal extraction. At the second stage, the coal containing waste heaps mass (fraction of 0-50 mm) is supplied to the special coal extraction plant	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		for further dressing and processing. The complete coal enrichment cycle process in heavy media is performed in the premises of coal extraction plant. The process is performed by mixing waste heap mass with magnetic suspension. As a result of this, the separation of processing material into coal concentrate and rock mass is performed due to the influence of centrifugal force. The end product is coal concentrate in fractions of 0-10 mm, 10-25 mm and 25-50 mm. Sorted coal, obtained within the project activity is delivered to consumers for further consumption.		
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)	Anthropogenic GHG emissions reductions are to be achieved by coal extraction from coal containing waste heaps in order to prevent CO2e emissions into the atmosphere which are occurring as the result of waste heaps spontaneous burning and also to obtain additional quantities of coal. Coal extracted from the waste heaps will substitute the coal from the mines and will be used mainly for energy production purposes at coal-fired power plants. Coal mining is a source of the fugitive	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		emissions of methane, therefore, the project activity will reduce methane emissions by reducing the amount of coal required to be mined		
-	Is it provided the estimation of emission reductions over the crediting period?	The estimation of emission reduction over the crediting period is provided	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	Te estimated annual reduction for the chosen credit period is provided in tCO2e	OK	OK
-	Are the data from questions above presented in tabular format?	The data from these questions are provided in tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	*Corrective Action Request 07* Please indicate in the section A.4 length of crediting period	CAR07	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	The estimates are provided in tonnes of tCO2e	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	Project Idea Note had been submitted for review to the State Environmental Investment Agency of Ukraine *Corrective Action Request 08* Please provide in the section A.5 of the PDD Letter of Endorsement issued by SEIA	CAR08	OK
19	Does the PDD identify at least the host	The PDD identifies Ukraine as a Host Party. See	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	Party as a "Party involved"?	also CAR		
19	Has the DFP of the host Party issued a written project approval?	*Corrective Action Request 09* Please provide A.5 of the PDD Letter of Approval issued by the Host Party	CAR09	Pending
20	Are all the written project approvals by Parties involved unconditional?	See section 19 of this protocol	-	-
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?	After finishing of project determination report, the PDD with supporting documents and Determination Report will be presented to National Environmental Agency of Ukraine for receiving the Letter of Approval that will authorize project participants. Also, see section 19 and section 20 of this protocol above.	OK	OK
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	In PDD indicated that JI specific approach is used for identifying the baseline, since among the methodologies approved by the CDM Executive Board there is none fully matching the proposed JI project. The baseline was indentified in accordance with "Guidance on criteria of baseline settings and monitoring" version 02. Also "Waste	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" was used for baseline indentifying		
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	The PDD provides a detailed theoretical description of five plausible future scenarios in a complete and transparent manner. First plausible future scenario was chosen as baseline.	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 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?	According to the information concerning in the PDD, five plausible future scenarios presented in a complete and transparent manner. First plausible future scenario was chosen as baseline. Identified possible scenarios were analysed taking into account key factors of national and/or sectoral policies that affect the implementation of the regarded scenarios. Also, in section B.1 all baseline data and parameters are presented in a tabular format with detailed explanation of each ones. *Clarification Request 01* Please, provide more detailed description of project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere"	CL01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?			
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	As indicated in the PDD any CDM methodologies or methodological tools don't used for baseline choice, justification and settings, because among the methodologies approved by the CDM Executive Board there is none fully matching the proposed JI project.	OK	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	*Corrective Action Request 10* For this project there is used multi-project Carbon Emission Factor for fugitive methane emissions from coal mining, which is assessed by "National GHG inventory of Ukraine, period 1990-2009" for JI projects developed in Ukraine. Please, change section B.1 of the PDD	CAR10	OK
Approved CDM methodology approach only				
26 (a)	Does the PDD provide the title,	Not applicable	Not	Not

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reference number and version of the approved CDM methodology used?		applicable	applicable
26 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	Not applicable	Not applicable	Not applicable
26 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	Not applicable	Not applicable	Not applicable
26 (c)	Are all explanations, descriptions and analyses pertaining to the baseline in the PDD made in accordance with the referenced approved CDM methodology?	Not applicable	Not applicable	Not applicable
26 (d)	Is the baseline identified appropriately as a result?	Not applicable	Not applicable	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	The PDD indicates that approved "Tool for demonstration assessment and additionality" version 05.2 was used for demonstration additionality. The latest version of the tool was used.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 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".	Consideration that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions were performed by project developer and provided in section B.2 of the PDD.		
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	The PDD provides a justification of the applicability of the approach reference on "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" Global Carbon project which was successfully implemented.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
29 (b)	Are additionality proofs provided?	See section 29(a) of this protocol	-	-
29 (c)	Is the additionality demonstrated appropriately as a result?	See section 29(a) of this protocol	-	-
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	Approach 28(b) was used	OK	OK
Approved CDM methodology approach only				
31 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	Not applicable	Not applicable	Not applicable
31 (b)	Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the project?	Not applicable	Not applicable	Not applicable
31 (c)	Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology?	Not applicable	Not applicable	Not applicable
31 (d)	Are additionality proofs provided?	Not applicable	Not applicable	Not applicable
31 (e)	Is the additionality demonstrated appropriately as a result?	Not applicable	Not applicable	Not applicable
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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 boundary is defined in the PDD encompass all anthropogenic emissions by sources of GHGs under control the project participants, reasonably attributable to the project and significant, such as GHG emissions from electricity consumed during project activity, coal consumption, diesel fuel consumption.	OK	OK
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	See section 32(a) of this protocol	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of the project boundary and sources included are described in the PDD by using figure B.1 Emission sources located within the project boundary. *Corrective Action Request 11* Please exclude Figure 8 Project boundaries in the baseline scenario from the PDD *Corrective Action Request12* Please indicate at Figure 9 “Project boundaries in project scenario” emissions of consumed diesel fuel during project activity	CAR11 CAR12	OK OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of	In section B.3 of the PDD all gases and sources included are explicitly stated; the information	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	any sources related to the baseline or the project are appropriately justified?	presented in table B.3.1.		
Approved CDM methodology approach only				
33	Is the project boundary defined in accordance with the approved CDM methodology?	Not applicable	Not applicable	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?	The PDD indicates that the starting day of the project is 23 June 2006. *Clarification Request 02* Please explain why 23/06/2006 was chosen as the starting date of the project	CL02	OK
34 (a)	Is the starting date after the beginning of 2000?	The starting date of the project is 2006 year	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 or 156 months	OK	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The PDD states the length of the crediting period in 13 years (156 months) from 01/01/2008 till 31/12/2020 *Clarification Request 03* Please clarify why 01/01/2008 was chosen as the beginning of crediting period	CL03	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements	In the PDD there is no information that the starting date of the crediting period is before the date of the first emission reductions generated by the JI	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	of net removals generated by the project?	project. Please, see CL02		
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?	The crediting period starts after the beginning of 2008 (01/01/2008) and doesn't extend beyond the operational lifetime of the project	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 estimation of emission reduction due to the JI project is provided for the period 2008-2020. In the PDD the values of emission reductions during the period 2008-2012 are presented in table 2. The values of emission reductions for the period 2012-2020 are presented separately in table 3 of the PDD.	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 was used for monitoring plan in accordance with "Guidance on criteria for baseline setting and monitoring", (Version 02).	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	The project developer uses JI specific approach for monitoring plan establishing in accordance with "Guidance on criteria for baseline settings and monitoring".	CAR13	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitored? − All decisive factors for the control and reporting of project performance?	Monitoring plan for project was elaborated by specific approach of JI with application of methodology "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere" *Correct Action Request 13* Please provide reference ACM-number and version of used Methodology		
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 describes relevant indicators, constants and variables such as amount of produced coal, amount of consumed electricity, emission factors of Ukraine national grid, for fugitive methane emissions of coal mining etc. *Corrective Action Request14* For monitoring emission reductions constant density of methane was used. Please indicate the source of this value in the section D of the PDD	CAR14	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	In monitoring plan global warming potential of methane, net calorific values of diesel fuel and coal, oxidation factors, carbon factor of diesel fuel and coal are used as default value. The source of this value is clarified in table D.1.1, namely, "National GHG inventory of Ukraine, period 1990-2009"	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	transparent manner?			
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	The monitoring plan indicates how the values are to be selected and justified.	OK	OK
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	The monitoring plan clearly indicates references from which these values are taken.	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	*Corrective Action Request 15* Please, specify in the section D the procedures to be followed if expected monitoring data are unavailable.	CAR15	OK
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units aren't used, but some units are used.	OK	OK
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 doesn't note any parameters, coefficients, variables, etc that are to be obtained though monitoring in order to calculate baseline emissions.	OK	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	According to the monitoring plan and the PDD, the use of parameters and variables are consistent between the baseline and monitoring plan.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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 is established taking into account the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring". For instance, Carbon Emission Factor for electricity ($EF_{CO2e,electricity,y}$) is used in given JI project	OK	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	See the PDD section D.1. The data and parameters that are monitored throughout the crediting period are clearly indicated in the PDD (section D.1 and Annex 3).	OK	OK
36 (e)	Does the monitoring plan describe the methods employed for data monitoring	The section D.1 of the PDD describes the methods employed for data monitoring including its	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(including its frequency) and recording?	frequency and recording		
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?	All algorithms and formulae used for the estimation of baseline and project emissions are indicated and explained in the PDD.	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formulae is presented	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	All variables and equation formats are consistent and used in appropriately way.	OK	OK
36 (f) (iii)	Are all equations numbered?	Equations needed for calculations described in section B and section D of the PDD. All equations are numbered. *Corrective Action Request 16* Please provide correct numeration of equation in the section D.1.4.	CAR16	OK
36 (f) (iv)	Are all variables, with units indicated defined?	All variables with units indicated are defined	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the procedures is 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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	There is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions of the baseline scenario.	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	Used formulae are explained	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	In the PDD project developer describes procedures that are in compliance with technical procedures at “Technoantracite Ltd”	OK	OK
36 (f) (vii)	Are references provided as necessary?	References for documents required for ERUs calculation are provided	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Key assumptions are explained in the PDD	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	In the project design document there is not stated any information about significant uncertainty level of assumptions and procedures.	OK	OK
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	In the PDD project developer described the uncertainty level of key parameters. Uncertainty level of concerned data was assessed as low. Measuring devices for monitoring of key parameters are calibrated/verified in compliance	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	enhancements of net removals provided?	with the state regulation, "Technoantracite Ltd" procedures and approved methodologies in order to assure quality control of monitoring data.		
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?	No national or international monitoring standard are used for monitoring of the JI project implementation.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	Not applicable for given JI project.	OK	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	In monitoring plan section D.2 and D.3 of the quality assurance and control procedures, including information about calibration and how monitoring data are to be recorded and collected. *Corrective Action Request 17* Please, provide Calibration plan of JI project measurement equipments.	CAR17	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the	*Corrective Action Request18* Please identify the responsible departments and	CAR18	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	authority regarding the monitoring activities?	persons regarding monitoring activities of the JI project in section D.2 of the PDD.		
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?	According to the section B.2 of the PDD, no similar activity to this project not identified in Ukraine, so good monitoring practice to this type project is unavailable.	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?	Presented in the PDD monitoring plan provides 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. Data connected with baseline scenario and emission reduction calculation are stated in tabular format in section D of the PDD.	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?	The monitoring plan indicates that the data monitored and required for emission reduction calculation will be kept for two years after the last transfer of ERUs	OK	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are	Not applicable	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?			
Approved CDM methodology approach only				
38 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	Not applicable	Not applicable	Not applicable
38 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	Not applicable	Not applicable	Not applicable
38 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	Not applicable	Not applicable	Not applicable
38 (c)	Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology?	Not applicable	Not applicable	Not applicable
38 (d)	Is the monitoring plan established appropriately as a result?	Not applicable	Not applicable	Not applicable
Applicable to both JI specific approach and approved CDM methodology approach				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
39	If the monitoring plan indicates overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined project components, justify its need and state how the conditions mentioned in (a)-(c) are met?			

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	As developers of project design document regard, the project activity doesn't relate with transportation, firing, or production, so additional amount of fuel is not needed. Thus, project leakage is absent.	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	According to the information and justification stated in the PDD, leakage is absent. Please, refer to section B.3 of the PDD.	OK	OK
Approved CDM methodology approach only				
41	Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology?	Not applicable	Not applicable	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 emission reductions in 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:	The PDD provides ex ante estimates for project and baseline scenario. Leakages considered as absent.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?			
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?	Not applicable	Not applicable	Not applicable
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-	The estimation of baseline emissions and emission reduction are made on a periodic basis from beginning to the end of the crediting period for each year. Estimations of emission reductions are carried out for CO2e as greenhouse gas. Calculations are	CAR19 CAR20	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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	regarded in tCO2 equivalent. Formulae used for calculating the estimates concerning in section D and section E are consistent throughout the PDD. Data sources used for calculating the estimates are clearly identified. Among key factors influencing the baseline emissions or the activity level of the project as well as risks associated with the project is taken into account. Conservative assumptions are taken into account while estimating emission reduction. In the PDD there are provided tables with calculation results of CO2e emission reductions. As a fact, estimated total value of CO2e emission reductions for the first crediting period is 500 898 tCO2e; moreover, estimated total value of CO2e emission reductions for the period 2013-2020 792 000 tCO2e. *Corrective Action Request 19* Please, correct in the PDD table numerations according to the JI PDD form. *Corrective Action Request 20* Please, provide in the section E annual average value of CO2e emission reductions.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (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?	The calculation of baseline emissions is to be performed ex post. In the PDD there are provided ex ante calculation of emissions. All estimated values are presented in section E of the PDD and Excel spreadsheets.	OK	OK
Approved CDM methodology approach only				
47 (a)	Is the estimation of emission reductions or enhancements of net removals	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	made in accordance with the approved CDM methodology?			
47 (b)	Is the estimation of emission reductions or enhancements of net removals presented in the PDD: − On a periodic basis? − At least from the beginning until the end of the crediting period? − On a source-by-source/sink-by-sink basis? − For each GHG? − In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? − Are the formula used for calculating the estimates consistent throughout the PDD? − Are the estimates consistent throughout the PDD? − Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	The PDD provides detailed description on environmental impacts in the section F.1. Transboundary impacts are not observed for this project. The full environmental analysis in accordance with the Ukrainian legislation has been conducted for the proposed project in 2005-2006 by the local developer SPE “Company Nature”.	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 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?	The PDD provides conclusion and references to supporting documentation of an environmental impact assessment in accordance with the procedures required by Ukraine legislation	OK	OK
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as	The Host Party doesn’t require stakeholder consultation process for the JI project. No stakeholders comments connected with JI	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	project were obtained. Also, stakeholder's comments will be collected during determination procedure		
Determination regarding small-scale projects (additional elements for assessment)				
Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment)				
Determination regarding programmes of activities (additional/alternative elements for assessment)				

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
Corrective Action Request 01 Please clearly formulate main goal of the project in the section A.2	-	Corrected. Following text added to the Section A.2 of the PDD ver.2. "This Project is aimed at coal extraction from the mine's waste heaps near the town of Sverdlovsk, Lugansk Region, Ukraine. 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. The Project includes the installation of coal extraction units and the grading of the extracted coal. Extracted coal is then sold for heat and power production."	The Aim of the project was provided in the PDD version 2 (page 3, section A.2). The issue is closed.

Corrective Action Request 02 Please describe in the section A.2 of the PDD next follows: a) situation existing before the starting date of the project b) baseline scenario c) project scenario including a technical description and expected outcome	-	Corrected. Following text added to the Section A.2 of the PDD ver.2.: In the past, *before the starting 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. According to different estimations, the rock mass, which is mined from the coal mine, contains only around 65-70% of coal, while the rest is a waste. Up to 60% of this rock mass is formed in coal containing waste heaps. According to experts' estimations, percentage of combustible substances in the coal containing waste heaps is around 15-30%, when at the same time the coal content varies from 7% and till 28-32%.	The above mentioned information was added in the PDD. The issue is closed.

		In the baseline scenario it is assumed that this common practice will continue and waste heaps will be burning and emitting GHG into the atmosphere until the coal is consumed. Whereas using improved extraction techniques, proposed in this project, the residual coal can be extracted from the waste heaps and the coal can be used to for the energy needs of local consumers. The reclaimed coal will replace coal that would have otherwise been mined, causing fugitive emissions of methane during the mining process. Therefore, *in the project scenario* the coal extracted from the waste heaps will partly substitute the coal from the mine, decreasing fugitive methane emissions, and reduce emissions GHG emissions due to waste heap combustion by extracted all the combustible material from the waste heaps.	

Corrective Action Request 03 Please, briefly summarise the history of the project including its JI component		Corrected. Following text added to the Section A.2 of the PDD ver.2."Brief summary of the history of the project: The project has been initiated in the mid 2006. Project design has been completed by end of 2006 and installation and construction works were done by the end of the 2007. The JI was one of the drivers for the project from the start and financial benefits provided by the JI mechanism were considered as one of the reasons to start the project."	The history of the project has been included in the section A.2 of the PDD. The issue is closed.
Corrective Action Request 04 Please indicate second Party involved		The second Party involved added to the Section A.3 of the PDD ver.2.	The second party involved Rutek Trading AG, Switzerland was indicated. The issue is closed
Corrective Action Request 05 Please provide in Annex 1 more detailed information about project participants		Provided. See Annex 1 of the PDD ver.2	Information on project participants was included in Annex 1. The issue is closed
Corrective Action Request 06 Please provide section A.4.1.4 that it doesn't exceed one page		Provided. See Section A.4.1.4 of the PDD ver.2	The section A.4.1.4 was corrected. The issue is closed.

Corrective Action Request 07 Please indicate in the section A.4 length of crediting period		Provided. See Section A.4.3.1 of the PDD ver.2	Corrections in the section A.4.3.1 were provided. The issue is closed.
Corrective Action Request 08 Please provide in the section A.5 of the PDD Letter of Endorsement issued by SEIA	18	Provided. The project has been officially presented for endorsement to the Ukrainian authorities. Letter of Endorsement # 2810/23/7 has been issued by the State Environmental Investment Agency of Ukraine on the 28th of September 2011 for this project	The Letter of Endorsement #2810/23/7 dated 28/09/2011 has been provided to determination team by project developer. The issue is closed.
Corrective Action Request 09 Please provide A.5 of the PDD Letter of Approval issued by the Host Party	20	Corrected. The project participants will submit necessary documents in order to obtain approval from the Host Party after the determination report will be issued as indicated by the project approval procedures of the Host Party.	The CAR is pending

Corrective Action Request 10 For this project there is used multi-project Carbon Emission Factor for fugitive methane emissions from coal mining, which is assessed by "National GHG inventory of Ukraine, period 1990-2009" for JI projects developed in Ukraine. Please, change section B.1 of the PDD	25	Corrected. For this project there is used multi-project Carbon Emission Factor for fugitive methane emissions from coal mining, which is assessed by "National GHG inventory of Ukraine, period 1990-2009" for JI projects developed in Ukraine. See Section B1 of the PDD ver.2	The corrections of the section B.1 was found satisfactory. The issue is closed.
Corrective Action Request 11 Please exclude Figure 8 Project boundaries in the baseline scenario from the PDD	32(c)	Excluded. See Section B.3 of the PDD ver.2	The project developer provides delineation of project boundaries in Figure 8 in appropriately way. The issue is closed.
Corrective Action Request 12 Please indicate at Figure 9 "Project boundaries in project scenario" emissions of consumed diesel fuel during project activity	32(c)	Indicated. See Figure 8 of the Section B3 of of the PDD ver.2	The project developer indicates diesel fuel emissions in project boundaries. The issue is closed

Correct Action Request 13 Please provide reference ACM-number and version of used Methodology	36(a)	The monitoring plan was not elaborated by Methodology with ACM-number and number of the version. The following already mentioned at Section D1 of the PDD ver.2 "The monitoring plan is fully based on JI specific approach which is identical to the JI specific approach that was applied in the already registered JI project (under Track 2, reference # UA2000020) – "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere".	The used JI specific approach based on project developer own methodology is indicated in the section D.1. The issue is closed.
Corrective Action Request 14 For monitoring emission reductions constant density of methane was used. Please indicate the source of this value in the section D of the PDD	36(b)	Corrected. The following added methane density to Section D.1.1.1 of the PDD ver.2: "2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2, Energy, p 4.12 (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_4_Ch4_Fugitive_Emissions.pdf)"	The methane density source was provided in the section D.1.

Corrective Action Request 15 Please, specify in the section D the procedures to be followed if expected monitoring data are unavailable.	36(b)(iii)	Specified. In case of having problems with certain monitoring devices, the accounting system is organized in such way that allows double checking of all the data. Ultimately all information can be proven by independent invoices with the third parties. However, such a risk is very low and was not appeared in the suggested monitoring period. See section D2 of the PDD ver.2	Answer for this request was provided in section D.2 (page 43) of PDD ver2. Please put answer in accordance with JI PDD form and provide evidences of proposed monitoring system.
Corrective Action Request 16 Please provide correct numeration of equation in the section D.1.4.	36(f)(iii)	Corrected. Word “Equation” replaced by word “Formula”. See section D.1.4 of the PDD ver.2.	Correction was provided. The issue is closed.
Corrective Action Request 17 Please, provide Calibration plan of JI project measurement equipments.	36(i)	Provided. The following was added to Section D of the PDD ver.2 “Calibration of measurement equipments participated in project is done by special metrological organisations with regularity established by current rules and standards. See supporting document weight 1.pdf	The project participant answer was found satisfactory. The issue is closed.

Corrective Action Request 18 Please identify the responsible departments and persons regarding monitoring activities of the JI project in section D.2 of the PDD.	36(j)	Corrected. The principle structure presents on the following flow-chart (see section D.3. of PDD ver.2 and supporting documents).	The appropriate flow-scheme was presented in the section D.3 of the PDD.
Corrective Action Request 19 Please, correct in the PDD table numerations according to the JI PDD form.	45	Corrected. Numerations changed in tables 4,5,6 of the PDD ver.2	Please check table numerations in the section E of the PDD
Corrective Action Request 20 Please, provide in the section E annual average value of CO2e emission reductions.	45	Provided. See tables 13,14 of the Section E of the PDD ver.2	Annual average value of emission reductions were indicated in tables 13,14. The issue is closed.

Clarification Request 01 Please, provide more detailed description of project "Waste heaps dismantling with the aim of decreasing the greenhouse gases emissions into the atmosphere"	23	This Project is aimed at coal extraction from the mine's waste heaps near the town of Snizhne, Donetsk Region, Ukraine. 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. The Project includes the installation of coal extraction units and the grading of the extracted coal. Extracted coal is then sold for heat and power production. More detailed description at link http://ji.unfccc.int/UserManagement/FileStorage/IE7LK2SZF1NOXRVB4CYG65WQPJMHA3	The answer was found satisfactory. The issue is closed
Clarification Request 02 Please explain why 23/06/2006 was chosen as the starting date of the project	34(a)	This date was chosen as date of factory project design ordered. Would be more correct to choose the date 03/08/2006 when joint venture contract was signed between Tehnoathracite and Termoanthracite. See supporting document. Date changed. See Section C.1 of the PDD ver.2	Explanation has been included in section C of the PDD. The issue is closed

Clarification Request 03 Please clarify why 01/01/2008 was chosen as the beginning of crediting period	34(c)	The factory was commissioned at 16/11/2007 and worked at test mode till the end of 2007, At full capacity it started from beginning of 2008. As first commitment period of Kyoto protocol also started at 01/01/2008 it is logical to chose this date as beginning of crediting period.	Explanation has been included in section C of the PDD. The issue is closed