DETERMINATION REPORT

LLC BANDURSKY VEGETABLE OIL EXTRACTION PLANT

DETERMINATION OF THE

«UTILIZATION OF SUNFLOWER HUSKS FOR HEAT GENERATION AT LLC BANDURSKY VEGETABLE OIL EXTRACTION PLANT»

REPORT NO. UKRAINE-DET/0317/2011

REVISION NO. 02

BUREAU VERITAS CERTIFICATION

Date of first issue: 05/01/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: LLC Bandursky Vegetable Oil Extraction Plant	Client ref.: Mr. Yuriy Bulgakov

Summary:

Bureau Veritas Certification has made the determination of the «Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant» project of LLC Bandursky Vegetable Oil Extraction Plant located in the Pervomaisk district of Mykolaiiv region of 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 Requests, Corrective Actions Requests and Forward Action Requests (CL, CAR and FAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

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

Report No.: UKRAINE-det/0317/2011	Subject Group: JI	
Project title: «Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant».		
Work carried out by: Svitlana Gariyenchyk - Team Leader, Lead Verifier Olena Manziuk – Team Member, Verifier Kareryna Zinevych - Team Member, Lead Verifier Denis Pishchalov – Financial Specialist		
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Oleg Skoblyk– Technical Specialist		
Work approved by: Flavio Gomes - Operational Manager		
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1 INTRODUCTION

LLC Bandursky Vegetable Oil Extraction Plant has commissioned Bureau Veritas Certification (BVC) to determine its JI project «Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant» (hereafter called "the project") in the Pervomaisk district of Mykolaiiv region of Ukraine.

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

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:

Svitlana Gariyenchyk
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Kateryna Zynevich
Bureau Veritas Certification Team Member, Climate Change Lead Verifier

Olena Manziuk
Bureau Veritas Certification Team Member, Climate Change Verifier

Denis Pishchalov
Bureau Veritas Certification Team Member, Financial Specialist

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal technical reviewer

Oleg Skoblyk
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) version 01 submitted by LLC Bandursky Vegetable Oil Extraction Plant on 14/09/2011 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 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, LLC Bandursky Vegetable Oil Extraction Plant revised the PDD and resubmitted it on 26/10/2011 as version 02, on 17/11/2011 as version 03 and on 26/12/2011as version 04, the former is deemed final.

The determination findings presented in this report relate to the project as described in the PDD version 04.

2.2 Follow-up Interviews

On 03/11/2011 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 LLC Bandursky Vegetable Oil Extraction Plant and Climate Protection Bureau LLP Company were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
LLC Bandursky Vegetable Oil Extraction Plant	➢ Implementation schedule ➢ Project management organization ➢ Evidence and records on reconstruction and new equipment and its operation ➢ Environmental Impact Assessment ➢ Project monitoring responsibilities ➢ Monitoring equipment ➢ Personnel training ➢ Quality control and quality assurance procedures ➢ Environmental impacts affected ➢ Local authorities and public opinion
CONSULTANT Climate Protection Bureau LLP Company	➢ Applicability of methodology ➢ Baseline and Project scenarios ➢ Additionality justification ➢ Common practice analysis ➢ Monitoring plan ➢ Conformity of PDD to JI requirements
Stakeholders Sofia-Village Council	➢ Local stakeholders' opinion on the implementation of the project and its possible impacts

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 aim of the present project is to decrease greenhouse gas emissions by utilization of sunflower husk (biofuel) as fuel for boiler instead of fossil fuel, which is the most commonly used fuel in Ukraine, and also to decrease methane emission by preventing storage of sunflower husk at the disposal site and respectively its anaerobic decay.

Prior to joint implementation project activity, the baseline scenario for Bandursky VOEP LLC was heat generation for the enterprise production and heating needs from fossil (diesel) fuel and transportation of waste biomass (sunflower husks) to disposal site for its anaerobic decay. In accordance with the baseline scenario greenhouse gases emissions were caused by fossil fuel combustion for heat energy generation and methane emission occurred due to anaerobic decay of sunflower husk on the disposal site.
History of the project started when considering the possibility of investments attraction through Kyoto mechanisms, specialists of Kernel Group decided to construct a boiler, which will process sunflower husk for heat generation, what will provide the reduction of greenhouse gases emission into the environment, in comparison with heat generation from fossil fuel, and decrease of methane emissions by preventing sunflower husks disposal at the landfill site and its anaerobic decay.

The identified areas of concern as to the project description, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 17, CAR 18, CAR 19, CAR 29, CAR 30).

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 32 Corrective Action Requests and 20 Clarification Requests.

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

4.1 Project approvals by Parties involved (19-20)

After finishing JI project determination report, the PDD and Determination Report will be presented to State Environmental Investments Agency of Ukraine (SEIA) for receiving the Letter of Approval (LoA).

The identified areas of concern as to project approvals by Parties involved, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 01).

4.2 Authorization of project participants by Parties involved (21)

The participation of each project participant listed in the PDD will be authorized by Letter of Approval from appropriate party explicitly stating the name of the legal entity.

The identified areas of concern as to the authorization of project participants by Parties involved, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 01).

4.3 Baseline setting (22-26)

The PDD indicates that a baseline for the JI project is set in accordance with Guidance on Criteria for Baseline Setting and Monitoring (version 03) (hereinafter referred to as Guidance) as well as the use of the elements of the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (Version 11.2.0) which is the latest version at the time of setting the baseline for this project.
The use of the elements of the ACM0006 methodology is justified through the assessment of the methodology's applicability criteria.

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

(a) By listing and describing the following plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one. The assessment of alternatives to the baseline is made separately for the energy and waste management components of the project. Considering the heat energy generation, the following scenarios were taken into account:

a. The proposed project activity undertaken without being registered as a JI project activity;
b. Continuation of the current situation, that is production of heat energy from fossil fuel (diesel fuel);
c. Production of heat energy from fossil fuel (natural gas);
d. Purchase of heat energy from local heating supply company.

With regards to the biomass residues treatment, the chosen alternative scenarios are the following:

a. Transportation of biomass residues to landfill site for anaerobic decay
b. Biomass residues are burnt in an uncontrolled manner without utilizing it for energy purposes
c. Biomass residues are used for heat energy generation on project plant
d. Biomass residues are used for heat generation at the plants which are not undertaken as a JI project activity

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the

following key factors that affect a baseline are taken into account:

a. Analysis and description of the sectoral policies and legislation concerning the Ukrainian energy sector and waste management;
b. Describing economic situation in sectors mentioned above, the project participants state that a common practice in Ukraine is usage of fossil fuel for heat energy generation and dumping biomass residues into landfill sites. Regarding other alternative scenarios for the sunflower husks utilization, it is stated that open uncontrolled biomass combustion is legally forbidden; sunflower husks are not applicable for use as fertilizer or feedstock;
c. As far as availability of capital, it is stated that usage of sunflower husks as biofuel for heating purposes is directly related to sunflower crop in Ukraine. In case of its failure, biomass residues may not be enough to meet heating and production needs of the enterprise. This requires construction of an extra boiler house operating on diesel fuel and, thus, additional investments;
d. As far as the applied technology is concerned, it is admitted that there is lack of studies on usage of sunflower husks for heat energy generation in Ukraine; it also requires highly qualified personnel. Besides, the design of biofuel fired boilers is specially tailored for specific technological norms of an enterprise which is more sophisticated and in its turn, more expensive;
e. As for the fuels availability and their prices, it is stated in the PDD that the consumption of fossil fuels for heat energy generation has been a common practice in Ukraine because of their availability in contrast to the biofuel that is directly related to the sunflower corps.
f.

The PDD Section B.1. and B.2. contain further more detailed information on key factors influencing a baseline.

As a baseline scenario the one assuming heat energy generation for production and heating needs of the enterprise from fossil fuel, and biomass residues to be transported to the landfill site was selected.

The identified areas of concern as to the baseline setting, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 05, CAR 20, CAR 25, CAR 32, CL 07)

4.4 Additionality (27-31)

Additionality of the proposed JI project was assessed according to "Tool for the demonstration and assessment of additionality" (version 05.2)[1].

To prove additionality the following step-by-step approach was applied:

- Investment analysis of the project activity with and without JI registration, based on the calculations of NPV and IRR for both variants;
- Barrier analysis including financial and technical barriers, and
- Common practice analysis

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

The identified areas of concern as to additionality, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 13, CAR 14, CAR 15, CAR 16, CAR 16, CL 14, CL 15, CL 16, CL 17, CL 18).

4.5 Project boundary (32-33)

Project boundaries of this project were estimated in accordance with requirements of ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (version 11.2.0).
Description of the emission sources under the baseline and project scenarios is given in a tabular format in Section B.3. of the PDD.
Emissions under the project scenario are associated with energy consumption from Ukrainian Energy Transmission Grid (hereinafter UETG), what is essential for boiler operational modes support and methane emission which is associated with burning of sunflower husk in the boiler for heat energy generation.
Emissions under the baseline scenario are associated with fossil fuel combustion for heat energy generation without project activity and methane emission which is associated with anaerobic decay of the sunflower husk on the landfill site without project activity.

In accordance with the requirements of the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (version 11.2.0) leakages for this project are not calculated.

The identified areas of concern as toproject boundary, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CL 01, CL 02).

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 11/11/2010, which is after the beginning of 2000. The Starting date is confirmed by the Order #116 dated 11/11/2010 on conducting of organizational measures on Bandursky VOEP commissioning (listed as Category 2 Documents #95 in the References section of the present Determination report).

The PDD states the expected operational lifetime of the project in years and months, which is 15 years or 180 months.

The PDD states the length of the crediting period in years, months and days, which is 15 years or 180 months and 17 days, and its starting date as 15/12/2010 which is the date after the first emission reductions were 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 are presented separately for those after 2012 in all relevant sections of the PDD.

The identified areas of concern as to the crediting period, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 02, CAR 26).

4.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that the monitoring plan is established in accordance with "Guidance on criteria for baseline setting and monitoring" (version 3) developed by the JISC applying certain elements defined in the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (Version 11.2.0).
The choice of certain elements of the applied methodology is based on the assessment of its applicability to the JI project under consideration that is provided in Section D. of the PDD.

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

- data to be monitored in the project scenario:
  - amount of electricity consumed by the boiler from UETG during a year;
  - total amount of husks to be combusted in dry weight of a substance in a year;
  - husk net calorific value in dry weight of a substance; as well as
  - related variables and default values, such as Carbon emission factor for UETG, Global Warming Potential of methane, methane emission factor for husk defined in the recognized national and international sources which are considered reliable and credible;

- data to be monitored in the baseline scenario:
  - fraction of methane captured at the SWDS and flared, combusted or used in another manner;
  - total amount of husks to be transported to disposal site in a year x without project activity;
  - amount of heat energy produced by the enterprise boiler house per year, as well as
  - related variables and default values determined by the tools applicable to the chosen methodology and corresponding national inventory reports of anthropogenic emissions by sources and removals by sinks of GHG's in Ukraine that are presented in Section D.1.1.3. of the PDD

- the period in which they will be monitored: annually or monthly;
- all decisive factors for the control and reporting of project performance: production and statistic reports provided by the plant; state laboratory research reports; quality control (QC) and quality assurance (QA) procedures; 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 to be monitored such as: CO_2 emission factor for grid connected power generation;

- Global Warming Potential of methane;
- Methane emission factor for husk;
- Fraction of methane captured at the SWDS gas;
- Fraction of degradable organic carbon (DOC) that can decompose;
- Methane correction factor;
- Fraction of sunflower husk in degradable organic carbon;
- Decay rate for husk;

- Energy efficiency (KPI) of boiler house under the baseline;
- Diesel fuel combustion oxidation factor;
- Amount of carbon in diesel fuel.

The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC, such as baseline emissions (BE_y), project emissions (PE_y), year (y), specific CO_2 emission factor for power generation at Ukrainian grid connected thermal power plants in year y ($EF_{grid,produced,y}$), NPV, IRR.

The monitoring plan explicitly and clearly states that all monitoring parameters provided in section D.2 are subject to monitoring during the whole crediting period.

The monitoring plan describes the methods employed for data, such as electricity meters within the automated system for electricity metering, heat meters, weight measuring equipment, laboratory analyses, as well as data collection frequency (annually or monthly) and recording (electronic/paper).
The monitoring plan also provides delineation of the electricity, heat and weight measuring equipment presented in Figures 5, 6 and 7 of the PDD Section D.3.

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application.

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

Baseline emissions:

$BE_y = BE_{heat,y} + BE_{biomass,y}$,

Where:

BE_y – baseline emissions in a year *y*, t CO_{2e};
$BE_{heat,y}$ – emissions from diesel fuel combustion for heat generation in a year *y*, t CO_{2e};
$BE_{biomass,y}$ – emission from anaerobic decay of biomass residues on landfill sites in a year *y*, t CO_{2e};
y – year for which calculations are made.

Project emissions:

$PE_y = PE_{energy,y} + PE_{biomass,y}$,

Where:

PE_y – project emissions in year *y,* tCO_{2e};
$PE_{energy,y}$ – emissions from energy consumption for boiler house activity in year *y,* tCO_{2e};
$PE_{biomass,y}$ – emissions from the combustion of biomass residues during the year *y,* tCO_{2e};
y – year for which calculations are made.

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Emission reduction:

$ER_y = BE_y – PE_y$,

Where:

ER_y – emissions reduction during a year *y* due to project activities, t CO_{2e};
PE_y – emissions during a year *y* according to the project scenario, t CO_{2e};
BE_y – emissions during a year *y* according to the baseline, t CO_{2e}.
y – year for which calculations are made.

The monitoring plan presents the quality assurance and control procedures for the monitoring process.

It is indicated in the monitoring plan that data monitored and required for verification to be kept for two years after the last transfer of ERUs for the project.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities; they are presented in sufficient detail in PDD Section D.3 and accompanied by the figure describing the management structure for conducting monitoring.

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

The identified areas of concern as to monitoring plan, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 21, CAR 22, CAR 23, CAR 27, CAR 28, CL 03, CL 19, CL 20).

4.8 Leakage (40-41)

In accordance with the requirements of the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology

for electricity and heat generation from biomass residues" (version 11.2.0) leakages for this project are not calculated.

The identified areas of concern as to leakage, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 24).

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

The PDD indicates assessment of emissions in the baseline scenario and in the project scenario as the approach chosen to estimate the emission reductions generated by the project.
The calculations of emission reductions were made based on the actual data of the plant operation for 11 months from December, 2010 till October, 2011(listed as Category 2 Documents ## 3-13 in the References section of the present Determination report).

The PDD provides the ex-post estimates of:
(a) Emissions for the project scenario (within the project boundary), which are 2 341 tonnes CO_{2e} for the period 2010-2012; 15 691 tonnes CO_{2e} for the period 2013-2025.

(b) Leakages for this project are not calculated.

(c) Emissions for the baseline scenario (within the project boundary), which are 47 723 tonnes CO_{2e} for the period 2010-2012; 487 915 tonnes CO_{2e} for the period 2013-2025.

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are 45 382 tonnes CO_{2e} for the period 2010-2012; 472 224 tonnes CO_{2e} for the period 2013-2025.

The estimates referred to above are given:

(a) On an annual basis;

(b) From 15/12/2010 to 31/12/2025, covering the whole crediting period;

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

(d) For each GHG gas;

(e) In tonnes of CO_{2e}.

The formula used for calculating the estimates referred above, which are provided in section 4.7 above are consistent throughout the PDD.

Data sources used for calculating the estimates referred to above are clearly identified, reliable and transparent.

For calculating the estimates referred to above, key factors mentioned in Section 4.3. of the present report as well as in Section B.1. of the PDD influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as the State Environmental Investment Agency of Ukraine, national inventory reports of anthropogenic emissions by sources and removals by sinks of GHG's in Ukraine, approved methodology ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (version 11.2.0) and applicable tools, IPCC data, production and statistic reports of Bandursky VOEP LLC are clearly identified, reliable and transparent.
Specific grid emission factors as well as other variables 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 and are consistent throughout the PDD.

The annual average of estimated emission reductions over the crediting period is calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period, and multiplying by twelve.

The identified areas of concern as to estimation of emission reductions or enhancements of net removals, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 06, CAR 07, CAR 08, CAR 09, CAR 31, CL 04, CL 05, CL 08, CL 09, CL 10, CL 11, CL 12).

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party, such as State Construction Standard DBN A.2.2.-1-2003: "Structure and Contents of the Environmental Impact Assessment Report (EIA) for Designing and Construction of Production Facilities, Buildings and Structures" State Committee Of Ukraine On Construction And Architecture, 2004; Order of Ministry of Environmental Protection of Ukraine # 108 dated 09.03.2006.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.
In accordance with the requirements of the Host Party, Bandursky VOEP LLC holds valid permits on pollutant emissions into atmosphere issued by the State Administration of Natural Recourses in Mykolaiiv region, as well as required statistic reports that were presented to the determination team. (listed as Category 2 Documents #94, #109, #110 in the References section of the present Determination report).

It is stated in the PDD that realization of the proposed project gave the possibility to reduce emission of pollutants from stationary sources. In respect with permissions issued by State Administration of Natural Recourses in Mykolaiiv region impact on the environment is not significant, but in general it is positive.

The project has no transboundary impacts.

The identified areas of concern as to environmental impacts, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 03).

4.11 Stakeholder consultation (49)

The project activities were published in mass media. No negative stakeholders' comments or responses were received.

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)

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 «Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant» Project. The determination was

performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

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

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, version 04 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation version 04 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 LLC Bandursky Vegetable Oil Extraction Plant that relate directly to the GHG components of the project.

/1/	«Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant», version 01 dated 14/09/2011
/2/	«Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant», version 02 dated 26/10/2011
/3/	«Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant», version 03 dated 17/11/2011
/4/	«Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant», version 04 dated 26/12/2011
/5/	Emission reductions calculation spreadsheet excel file dated 26/10/2011
/6/	Emission reductions calculation spreadsheet excel file dated 17/11/2011
/7/	Emission reductions calculation spreadsheet excel file dated 26/12/2011
/8/	“Guidance on criteria for baseline setting and monitoring” (version 3)
/9/	ACM0006 “Consolidated methodology for electricity and heat generation from biomass residues” (Version 11.2.0)
/10/	“Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site” (version 05.1.0)
/11/	“Tool to determine the baseline efficiency of thermal or electric energy generation systems”" (version 01)
/12/	“Tool for the demonstration and assessment of additionality” (version 05.2)
/13/	“Guidelines on the assessment of investment analysis” (Version 5)
/14/	"Revised Guidelines for national inventories of greenhouse gases IPCC, 1996"
/15/	“National inventory report of anthropogenic emissions by sources and removals by sinks of GHG’s in Ukraine for 1999-2009” dated 06.07.2011

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/	Certificate #2162 dated 12/08/2011 on state metrological attestation of heat meter on the basis of ОЕ-32ДМ^{iz} computing machine, issued by the Mykolaivstandartmetrolohia State Enterprise
/2/	Agreement #325 dated 30/11/2010 on metrology works (services) execution
/3/	Production report for December 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/4/	Production report for January 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation

/5/	Production report for February 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/6/	Production report for March 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/7/	Production report for April 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/8/	Production report for May 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/9/	Production report for June 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/10/	Production report for July 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/11/	Production report for August 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/12/	Production report for September 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/13/	Production report for October 2011 of LLC Bandursky Vegetable Oil Extraction Plant boiler house operation
/14/	Heat generation record for December 2010
/15/	Steam generation record for December 2011
/16/	Heat generation record for January2011
/17/	Steam generation record for January 2011
/18/	Heat generation record for February 2011
/19/	Steam generation record for February 2011
/20/	Heat generation record for March 2011
/21/	Steam generation record for March 2011
/22/	Heat generation record for April 2011
/23/	Steam generation record for April 2011
/24/	Heat generation record for May 2011
/25/	Steam generation record for May 2011
/26/	Heat generation record for June 2011
/27/	Steam generation record for June 2011
/28/	Heat generation record for July 2011
/29/	Steam generation record for July 2011
/30/	Heat generation record for August 2011
/31/	Steam generation record for August 2011
/32/	Heat generation record for September 2011
/33/	Steam generation record for September 2011
/34/	Daily average values of conditions from 13/09/2011 till 30/09/2011
/35/	Daily average values of conditions from 01/10/2011 till 31/10/2011
/36/	Passport dated 28/03/2011 on electricity meter type HIK 2301 AK1, serial #0496713 (last calibration date 28/03/2011)
/37/	Passport dated 28/03/2011 on electricity meter type HIK 2301 AK1, serial #0496709 (last calibration date 28/03/2011)
/38/	Passport dated 28/03/2011 on electricity meter type HIK 2301 AK1, serial #0496709 (last calibration date 28/03/2011)
/39/	Passport dated 28/03/2011 on electricity meter type HIK 2301 AK1, serial

	#0496745 (last calibration date 28/03/2011)
/40/	Passport dated 28/03/2011 on electricity meter type НІК 2301 АК1, serial #0496750 (last calibration date 28/03/2011)
/41/	Guide for operation of resistance temperature detector type: ТСП-1088, ТСМ-1088, ТСМ-1188, ТСП-1188-01, ТСМ-1188-01
/42/	Passport dated 11/11/2010 on resistance temperature detector type ТСП-1187, serial #631
/43/	Passport dated 11/11/2010 on resistance temperature detector type ТСП-1187, serial #632
/44/	Certificate #240 dated 28/10/2011 of verification on measuring equipment of rail-weight unit , serial #172
/45/	Certificate #241 dated 28/10/2011 of verification on measuring equipment of rail-weight unit , serial #174
/46/	Certificate #242 dated 28/10/2011 of verification on measuring equipment of rail-weight unit , serial #175
/47/	Certificate #128 dated 25/05/2011 of verification on measuring equipment of rail-weight unit , serial #109
/48/	Certificate #129 dated 25/05/2011 of verification on measuring equipment of rail-weight unit , serial #109
/49/	Passport dated 08.2011 on resistance temperature detector type ТСП-1088 , serial #398
/50/	Passport dated 08.2011 on resistance temperature detector type ТСП-1088 , serial #397
/51/	Measuring equipment passport dated 08/08/2011 on converter of measuring model type 3095FB2, serial #0264726
/52/	Measuring equipment passport dated 08/08/2011 on converter of measuring model 3095FB2, serial #0276347
/53/	Verification certificate #23-18/0001362 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D1001D010EB
/54/	Verification certificate #23-18/0001363 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D1001B010EB
/55/	Verification certificate #23-18/0001364 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D1001A010EB
/56/	Verification certificate #23-18/0001357 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D10018010EB
/57/	Verification certificate #23-18/0001358 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D10019010EB
/58/	Verification certificate #23-18/0001359 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D1001E010EB
/59/	Verification certificate #23-18/0001360 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type

	FDU 95), serial # D1001F010EB
/60/	Verification certificate #23-18/0001361 dated 25/07/2011 for working measuring equipment on ultrasonic level meter type FMU 95(detector type FDU 95), serial # D1001C010EB
/61/	Passport dated 07.2011 on heat meter type ОЕ-32 ДМ, serial #0622
/62/	Certificate of state ecological certification #33 dated 18/08/2011 on automatic hopper scales type ВУ-120, serial #907055
/63/	Photo – automobile scales type ВТА-60.03, serial #109
/64/	Photo – automobile scales type ВТА-60.03, serial #110
/65/	Forecast indicators on heat production generated by WINKER boiler
/66/	Photo – electricity meter type НІК 2301 АК1, serial #0496709
/67/	Photo – electricity meter type НІК 2301 АК1, serial #0496745
/68/	Photo – electricity meter type НІК 2301 АК1, serial #0496750
/69/	Photo – electricity meter type НІК 2301 АК1, serial #0496799
/70/	Photo – electricity meter type НІК 2301 АК1, serial #0496713
/71/	Photo – Fire-tube boiler type JNO-HD, serial #
/72/	Photo – heat meter type ОЕ-32ДМ
/73/	Operative journal of duty shift dated at 01/06/2011
/74/	Thermal energy register dated 14/12/2010
/75/	Steam production register dated 13/12/2010
/76/	License certificate # 1078592 represents a license to use software
/77/	Indicators journal of electricity meters at switchgear- 0.4 kV “Bandursky Vegetable Oil Extraction Plant boiler house operation”
/78/	Electric energy consumption logbook #1
/79/	Electric energy consumption logbook #2
/80/	Photo – Bunker scales ВУ
/81/	Photo – Track scales 1
/82/	Photo – Track scales 2
/83/	Steam generation logbook 1
/84/	Steam generation logbook 2
/85/	Photo – Track scales control center
/86/	Photo – Main boiler 1
/87/	Photo – Main boiler 2
/88/	Photo – Back-up boiler 1
/89/	Photo – Back-up boiler 2
/90/	Photo – Boiler house electric filter
/91/	Statement on object readiness for commissioning #2 dated 14/10/2010
/92/	Monitoring parameters calculation algorithm
/93/	Agreement #21/07 dated 08/02/2011 on charged ecological services provided by the Ministry of Ecology and Natural Sources of Ukraine local bodies
/94/	Permit #4825486702-2 on air pollution dated 12/05/2010, valid till 12/05/2015
/95/	Order #116 dated 11/11/2010 on conducting of organizational measures on Bandursky VOEP commissioning
/96/	Letter of conformity of Bandursky Vegetable Oil Extraction Plant LLC ownership of production objects that are involved in the JI project “Utilization of sunflower husks for heat generation at Bandursky Vegetable Oil Extraction

	Plant LLC”
/97/	Certificate #028927 dated 27/10/2010 Series CAE on assets ownership
/98/	Annex #2 to the agreement #56/27 dated 25/03/2010. List of consumption objects (justification of voltage class in point of sale)
/99/	Order #26 dated 14/03/2011 on monitoring team organization
/100/	Environmental Impact Assessment, Book 1
/101/	Environmental Impact Assessment, Book 2
/102/	Passport on main boiler
/103/	Passport on back-up boiler
/104/	GHG emissions monitoring plan within JI project “Utilization of sunflower husks for heat generation at Bandursky Vegetable Oil Extraction Plant LLC”, developed 14/03/2011
/105/	Certificates on personnel training
/106/	Article in the Vsesvit newspaper #115(547) dated 14/04/2011
/107/	Attestation scope and certificate #49/09 dated 18/06/2009, valid till 18/06/2014, of Mykolaiiv Region State Ecological Inspection Instrumental and Laboratory Control Department
/108/	Article in the Prybuzkyi Visnyk newspaper #18-19 dated 06/03/2010
/109/	Form 2ТП – air for 2010
/110/	Form 4 МТП for January-December 2010
/111/	Passport on scales ВОВ-1 ВУ-120 #907055 and results of state metrological attestation dated 28/07/2010
/112/	Passport on track strain-gauge scales ВОВ-2 ВТВ-1СТБ НПВ 150 #174
/113/	Passport on track strain-gauge scales ВОВ-3 ВТВ-1СТБ НПВ 150 #175
/114/	Passport on track strain-gauge scales ВОВ-4 ВТВ-1СТБ НПВ 150 #172
/115/	Passport on track strain-gauge scales ВОВ-5 ВТА-60.3 #110
/116/	Passport on track strain-gauge scales ВОВ-6 ВТА-60.3 #109
/117/	Final expert report on Prosonic ultrasound level dated 17/01/2010
/118/	Confirmation of measuring equipment type certificate #UA-MI/1p-839-2010 dated 03/03/2010 on Prosonic ultrasound level issued by the State Committee on Technical Regulation and Consumer Policy
/119/	Confirmation of measuring equipment type certificate #UA-MI/2p-3207-2010 dated 03/03/2010 on Prosonic ultrasound level issued by the State Committee on Technical Regulation and Consumer Policy
/120/	Letter #2138 dated 15/06/2011, valid till 23/11/2012. The dates of husk level sensors manufacturing issued by the Fotonika LLC
/121/	Weight measuring units scheme
/122/	BOE-1: Calibration certificate #99 dated 15/04/2011, valid till 15/04/2017 on power meter МІК2301АКІ #0496799
/123/	BOE-1: Calibration certificate #1199-1195 dated 31/05/2011, valid till 31/05/2017 on current transformers ТАТ061800Х05 #0829-1, #0829-2, #0829-3
/124/	BOE-2: Calibration certificate #98 dated 15/04/2011, valid till 15/04/2017 on power meter МІК2301АКІ #0496750
/125/	BOE-2: Calibration certificate #1202-1204 dated 31/05/2011, valid till 31/05/2017 on current transformers ТАС032600Х05 #0829-1, #0829-2, #0829-3

/126/	BOE-3: Calibration certificate #97 dated 15/04/2011, valid till 15/04/2017 on power meter HIK2001AKI #0496745
/127/	BOE-3: Calibration certificate #1196-1198 dated 31/05/2011, valid till 31/05/2017 on current transformers TAT022150X05 #0845-1, #0845-2, #0845-3
/128/	BOE-4: Calibration certificate #95 dated 15/04/2011, valid till 15/04/2017 on power meter HIK2001AKI #0496713
/129/	BOE-4: Calibration certificate #1205-1207 dated 31/05/2011, valid till 31/05/2017 on current transformers TAC032600X05 #0905-I, #0905-II, #095-III
/130/	Location scheme of the sections of heat measurement (SHM) involved in the project
/131/	“Beginning of the investment stage of the project – permit on building works conduction at BVOEP” – date of the beginning of the investment stage of the project/permit on building works 30/07/2009

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/	Kapustian Grigory - Production Deputy Director
/2/	Kirilyuk Igor - Maintenance Deputy Director
/3/	Kachurka Valentina - Personnel Department Specialist
/4/	Huminski Vladimir - Electrical Department Head
/5/	Zaitsev Nikolai - Steam Power Department Head
/6/	Kirilyuk Oleg - Electrical Power and Control Equipment Department Foreman
/7/	Belova Tatiana - Environment Control Department Engineer
/8/	Teljatnik Nadezhda - Sofia-Village Council Chairman
/9/	Khalabuzar Viktor – Managing Partner of “Climate Protection Bureau LLP”

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BUREAU VERITAS CERTIFICATION HOLDING SAS

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 the project is: «Utilization of sunflower husks for heat generation at LLC Bandursky Vegetable Oil Extraction Plant» **CAR 18.** Please, provide the names for all submitted excel files. **CAR 19.** Please, indicate from the very outset of the PDD that VOEP stands for Vegetable Oil Extraction Plant. **CAR 29.** In accordance with the JI guidelines, JI PDD form shall be completed and submitted in English. Please make translations for the Figures 5, 6 and 7 and provide explanation as for what the abbreviations stand for. **CAR 30.** The format of the table in Section E.6. is altered. Please, correct it in accordance with the required form.	CAR18 CAR19 CAR29 CAR30	OK Ok OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Is the sectoral scope to which the project pertains presented?	The sectoral scope is: 1 Energy industries (renewable/ non-renewable sources)	OK	OK
-	Is the current version number of the document presented?	PDD Version 04 **CAR 17.** The current version of the PDD should be 04. Please, change it respectively.	CAR17	OK
-	Is the date when the document was completed presented?	PDD dated 26/12/2011	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 aim of this project is to decrease greenhouse gas emissions by utilization of sunflower husk (biofuel) as fuel for boiler instead of fossil fuel, which is the most commonly used fuel in Ukraine, and also to decrease methane emission by preventing storage of sunflower husk at the disposal site and respectively its anaerobic decay. Requirements a), b), c) to the content of Section A.2 are met.	OK	OK
-	Is the history of the project (incl. its JI component) briefly summarized?	The history of the project (incl. its JI component) is briefly summarized in Section A.2. of the PDD.	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	Party(ies) and project participants involved in the project are listed as follows: Party A: Ukraine and its legal entity Bandursky VOEP LLC;	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		- Party B: Great Britain and its legal entity Climate Protection Bureau LLP Company		
-	Is the data of the project participants presented in tabular format?	The data of the project participants are presented in due tabular format.	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	Contact information is provided in Annex 1 of the PDD.	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	Ukraine is indicated as Host Party.	OK	OK
Technical description of the project				
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Mykolaiiv region, Pervomaisk district	OK	OK
-	City/Town/Community etc.	Bandurka Village	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Geographic coordinates of Bandursky VOEP LLC: - 48º07' 30" North latitude; - 31º 02' 00" East longitude.	OK	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?	PDD Section A.4.3 provides some relevant technical data of main equipment installed and actions to be implemented by the project as well as the project implementation schedule.	OK	OK
Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances				
-	Is it stated how anthropogenic GHG	Anthropogenic GHG emission reductions are to be	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emission reductions are to be achieved? (This section should not exceed one page)	achieved: - by use of biofuel (sunflower husk) instead of fossil fuel (diesel) for heat energy generation, - due to elimination of methane emission caused by sunflower husk anaerobic decay.		
-	Is it provided the estimation of emission reductions over the crediting period?	The estimation of emission reductions over the crediting period is provided separately for the first commitment period and post-Kyoto period.	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	The estimated annual reduction for the chosen credit period is provided in tCO2e separately for the first commitment period and post-Kyoto period.	OK	OK
-	Are the data from questions above presented in tabular format?	The data from questions above are presented in tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	The length of the crediting period is 15 years and 17 days, what equals to 180 months and 17 days.		
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	Total as well as annual and average annual emission reductions in tonnes of CO2 equivalent are provided in accordance with the calculated values in the spreadsheet provided to the verifiers.	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	The project approval by the Host Party will be provided after the determination statement is issued by the AIE.	OK	OK
19	Does the PDD identify at least the host Party as a "Party involved"?	Neither of two Parties is identified as a "Party involved".	OK	OK
19	Has the DFP of the host Party issued a	**CAR 01.** There's no written project approval by the		Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	written project approval?	Host Party		
20	Are all the written project approvals by Parties involved unconditional?	The written project approvals by Parties involved are unconditional.	OK	OK
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?	The project participants are not authorized by the Parties involved in the project. The project participants will likely be authorized with the issue of the relevant project approvals. Please, refer to CAR01.	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	The PDD indicates that in accordance with "Guidance on criteria for baseline setting and monitoring" (version 03) for setting the baseline for this project JI approach specific was chosen with the combination of some elements and principles defined in the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (Version 11.2.0). **CAR 05.** According to the Guidance on criteria for baseline setting and monitoring as well as the	CAR05 CAR20 CAR25	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Guidelines for users of the JI PDD form the choice of approach used by the project participants for a baseline setting, demonstration of additionality and establishing a monitoring plan should be explicitly indicated. **CAR 20.** It's not clear from the PDD which approach for baseline setting, additionality demonstration and monitoring was chosen by the project participants. Please, specify it in accordance with the requirements of the applied "Guidance on criteria for baseline setting and monitoring" (version 3) as well as Guidelines for users of the JI PDD form version 04. **CAR 25.** Pay your attention that the methodologies applied for baseline setting, additionality demonstration and monitoring are approved by the CDM Executive Board. Please, make appropriate corrections to the respective sections of the PDD.		
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	A detailed theoretical description in a complete and transparent manner is provided for the applied JI specific approach. It includes: - an in-depth justification of the baseline chosen in accordance with the Guidance on Criteria for Baseline Setting and Monitoring (version 03), as well as of the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues"	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		(Version 11.2.0); - an assessment of applicability of the approach chosen for the baseline setting; - Identification and listing of the likely future baseline scenarios and selection of the baseline scenario separately for heat generation (H-alternatives) and biomass residues treatment (B-alternatives); - Description of the situation prior to the project implementation; - Provision of data on power and heat generation, amount of husk, in 2010-2011; - Identification and listing key factors for baseline setting.		
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	Baseline is established: (a) By listing and describing likely future scenarios available for the project owner Bandursky VOEP LLC and selecting the most plausible one. Four H-alternatives for heat generation and six B-alternatives for biomass residues treatment were listed, and assessed. Based on the alternatives analysis taking into account the results of the investment analyses presented in Section B.2, a conclusion is made that combination of alternatives B1 and H2 *namely "heat generation from fossil fuel (diesel fuel) and transportation of biomass residues to landfill site for anaerobic decay "* is the most likely baseline scenario. (b) Taking into account relevant national and/or sectoral policies and circumstance regarding waste	CAR32	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	treatment and atmospheric air protection (refer to Section B.1., footnote 3, and Section B.2 footnotes 1, 2) as well as key appropriate factors that affect a baseline, such as availability of capital for the project implementation; local availability of project technologies and techniques, skilled personnel (c) In a generally transparent manner with regard to the choice of the JI specific approach and related assumptions, parameters, data sources and key factors for baseline setting, which are listed in tabular format in Section B.1 (d) Taking into account of the uncertainty and using a conservative. (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". **CAR 32.** In accordance with paragraph 25 of GUIDANCE ON CRITERIA FOR BASELINE SETTING AND MONITORING version 03 used by the PPs for the baseline setting, a baseline shall be established taking into account relevant national and/or sectoral policies andcircumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. Please, provide description of the key factors that affect		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		a baseline and shall be taken into account in accordance with the requirements of the GUIDANCE.		
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?	Selected elements of the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (Version 11.2.0) together with the elements supplementary developed by the project participants are in line with 23 above. **CL 07.** Please, explain why the among the options for estimation the efficiency of the energy generated system provided by the "Tool to determine the baseline efficiency of thermal or electric energy generation systems" version 01, the project participants chose the use of a default value (90%) whereas there's another option suggested by the Tool, namely option a) use of the manufacturer's load efficiency function that implies using the more specific values provided in the reserve boiler and, thus, to a more accurate value of the boiler efficiency	CL07	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	The following two multi-project emission factors are used: - Carbon emission factor for UETG, the use of which is stipulated by the respective Orders of the National Environmental Investment Agency of Ukraine; and - Methane emission factor for husk, the use of which is justified by the ACM0006 "Consolidated methodology for electricity and heat generation from biomass	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		residues" (version 11.2.0)		
Approved CDM methodology approach only_ Paragraphs 26(a) – 26(d)_Not applicable				
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent 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".	The analysis of alternatives, investment and barrier analyses and common practice analysis were undertaken to demonstrate additionality of the project. In accordance with the "Tool for the demonstration and assessment of additionality" (version 05.2)[1]	OK	OK
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear	Justification of the applicability of the approach is provided by the application of "Guidance on criteria for	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	and transparent description?	baseline setting and monitoring" (version 3). In accordance with JI specific approach, additionality of the proposed JI project was assessed according to the "Tool for the demonstration and assessment of additionality" (version 05.2)		
29 (b)	Are additionality proofs provided?	Additionality proofs are provided by applying a step-by-step analysis in accordance with the Tool, mentioned in the above section.	OK	OK
29 (c)	Is the additionality demonstrated appropriately as a result?	The additionality is demonstrated appropriately by performing the following steps as defined by the "Tool for the demonstration and assessment of additionality" (version 05.2): • Identifying project activity alternatives; • Investment analysis; • Barrier analysis • Common practice analysis.	OK	OK
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	Yes. All explanations, descriptions and analyses are made in accordance with the selected tool chosen (option c). **CAR 13.** Please indicate in the sub-step 2b the period during which the annual credit rate in foreign currency according to the National Bank of Ukraine was taken. **CL 14.** It is possible, where applicable, to use less conservative benchmark assessed according to the requirements of GUIDELINES ON THE ASSESSMENT	CAR13 CL14 CL15 CL16 CL17 CAR14 CAR15 CL18 CAR16	OK OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		OF INVESTMENT ANALYSIS version 5. According to this document in case when the precise financial structure is unknown the average annual financial resources cost might be calculated as arithmetical value of the shareholder's equity and debt. According to the data used by the developer, the cost of debt makes up 10,5%. As to the document algorithm the cost of equity equals to risk free rate, equity risk premium, and risk premium for the host country; = 3,0+6,5+7,5 = 17%, correspondingly. Risk premium for the host country source is http://www.stern.nyu.edu/~adamodar/pc/datasets/ctryprem.xls. The benchmark will correspondingly make up: 10,5*0,5+17*0,5 = 13,75%. **CL 15.** Please explain the origin (the value for which currency/country and period was taken) and provide the source of inflation rate in the financial model and/or in the PDD. **CL 16.** Diesel fuel is indicated in the PDD as the alternative for the project. Diesel fuel consumption at boiler houses is not a common practice because of the high price on fuel. Besides the indicated fuel prices are much lower than real ones. Maybe heavy fuel oil or any other heavy fuel was meant? **CL 17.** Please explain the operational costs on the boiler house and back-up fuel storage system.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 14. The equipment was commissioned in November or December 2010, i. e. being in operation only for a month this year but the operational costs for 2010 are accepted on the same level as for the following years, that can not be true. Please correct. **CAR 15.** Please include project assets residual value. For this project it can possibly be the cost of equipment according to the metal scrap (in case the operational lifetime does not exceed 15 years), and also back-up fuel cost. Please take into account that the residual value must be calculated including inflation rate. **CL 18.** Please indicate whether all tariffs, investment articles and operational costs are indicated with VAT included or not **CAR 16.** The factor 0,75 was used while calculating the value “income from diesel fuel economy”. If the tax on income is also included, than two aspects are needed to be taken into account: 1. Income tax rate for 2011 according to the acting tax legislation makes up 23%, for 2012 – 21%, for 2013 – 19%, for 2014 and subsequent years – 16%. 2. According to the Annex 3 to the Tax Code the base for income tax calculation is the value that equals to gross revenues-gross expenses-depreciation. Income tax calculation under the project has to be made taking into account		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Ukrainian tax legislation.		
Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable				
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	The project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are (i) under the control of the project participants, (ii) reasonably attributable to the project, and (iii) significant. These are: - Baseline CO_2 emissions from diesel fuel combustion for heat energy generation ; - Baseline CH4 emissions from anaerobic decay of sunflower husks on landfill site; - Project CO2 emissions due to the energy consumption from the UETG; - Project CH4 emissions due to the burning of sunflower husks for heat energy generation In accordance with the approved methodology for baseline setting and monitoring ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (Version 11.2.0) leakages are not calculated.	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?	Project boundary is defined on the basis of case-by-case assessment of different emission sources.	OK	OK
32 (c)	Are the delineation of the project boundary	Description of the project boundary and the gases and	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	sources included are appropriately described and justified in a tabular form Section B.3 of the PDD.		
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	All gases and sources included are explicitly stated; refer to 32 (a) above. All exclusions made are appropriate as a conservative or logic assumption. **CL 01.** Please, explain why emissions from the consumption of electricity from the national grid for own needs are excluded from the baseline scenario? **CL 02.** It is stated in Section A.1. of the PDD that the enterprise is forced to build a back-up boiler house which will operate on fossil fuel. The necessity of a back-up boiler house construction may be explained by the fact that the boiler house operating on biofuel largely depends on sunflowers harvest in Ukraine. Bad sunflowers harvest may cause a lack of biofuel to satisfy production and heating needs of Bandursky VOEP LLC. In addition to this monthly reports on the boiler house operation submitted to the verifiers demonstrate that the substantive quantities of fossil fuel were consumed for a back-up boiler operation. Please, explain why the emissions from the consumption of fossil fuel are not included in the project scenario?	CL01 CL02	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Approved CDM methodology approach only_Paragraph 33_ Not applicable				
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	November 11, 2010 being the date of Order # 116 on putting Bandursky VOEP LLC to operation	OK	OK
34 (a)	Is the starting date after the beginning of 2000?	Refer to 34 (a).	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	Operational lifetime is defined as 15 years (180 months).	OK	OK
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is defined as 15 years and 17 days, what equals to 180 months and 17 days. The length of the crediting period referring to the first commitment period is 2 years and 17 days (24 months and 17 days) The crediting period starts on December 15, 2010. It is also stated that if it is prolonged after the first commitment period of Kyoto Protocol crediting period may be prolonged until the end of expected operational lifetime of the project. **CAR 26.** There is a mistake in defining the length of the crediting period. As it is considered to start on the 15th of December, then the PPs should specify it taking in consideration years, months and days as well. Please, make appropriate corrections.	CAR26	OK
34 (c)	Is the starting date of the crediting period	Start of the crediting period: 15/12/2010 which is the	CAR02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	on or after the date of the first emission reductions or enhancements of net removals generated by the project?	date after the first emission reductions were generated by the project **CAR 02.** Please, bring in line the data relating to the length of the crediting period and the start date of the crediting period.		
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 for issuance of ERUs starts only after the beginning of 2008 and does not 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 status of emission reductions or enhancements of net removals generated by JI projects after the end of the first commitment period of the Kyoto Protocol may be determined by any relevant agreement under the UNFCCC. The estimates of emission reductions are presented separately for those until 2012 and those after 2012.	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	It is explicitly indicated that a JI specific approach is chosen.	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: − All relevant factors and key	The monitoring plan describes: - data to be monitored in the project and baseline	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	scenarios that are provided in Section D.1. 1.1. and D.1.1.3. - the period in which they will be monitored: monthly/annually; - all decisive factors for the control and reporting of project performance: quality control (QC) and quality assurance (QA) procedures; the operational and management structure that will be applied in implementing the monitoring plan.		
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 constants and variables used are reliable, valid and provide transparent picture of the emission reductions, as they are taken from the recognized and reliable sources, such as the approved Methodology ACM0006 and applicable tools, IPCC and National legislative documents.	OK	OK
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? −Do the default values originate from recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	Constants used are the default values of the parameters as follows: carbon emission factor for UETG, Global Warming Potential of methane, methane emission factor for husk, husk net calorific value in dry weight of a substance, fraction of methane captured at the SWDS gas, fraction of degradable organic carbon (DOC) that can decompose, methane correction factor, fraction of sunflower husk in degradable organic carbon, decay rate for husk, diesel fuel combustion oxidation factor, amount of carbon in diesel fuel The default values originate from recognized sources and are presented in a transparent manner.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Husks net calorific value in dry weight of a substance is determined according state laboratory researches		
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?	- Husks net calorific value in dry weight of a substance is determined according state laboratory researches - Fraction of methane captured at the SWDS and flared, combusted or used in another manner is a fixed value and is determined by collection of statistic data on landfill site operation, where husk to be stored without project activity	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 the precise references from which these default values are taken **CAR 22.** Please, make it clear what in respect of the parameter W_{diesel} the following statement mean "Defined parameter is within the uncertainty range of IPCC default value" **CAR 23.** Please, provide the explanation in the PDD text what the abbreviation SWDS stands for.	CAR22 CAR23	OK OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	For the present project all data sources are expected to be available.	OK	OK
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units (SI 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	The monitoring plan notes parameters, coefficients, variables, etc. that are used to calculate baseline emissions based on monitored data of: - the amount of electricity consumed by the boiler;	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	through monitoring?	- total amount of husks to be combusted; - husk net calorific value in dry weight of a substance; - total amount of husks to be transported to disposal site in a year x without project activity; - fraction of methane captured at the SWDS and flared, combusted or used in another manner; and - amount of heat energy produced by the enterprise boiler house per year		
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	There is consistency between parameters, coefficients, variables, etc. used in baseline and monitoring plan.	OK	OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring". Please, refer to Section 4.7 of the present Determination report	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	Option (iii) is applicable. All monitoring parameters provided in sector D.2 are subject to monitoring during whole crediting period. **CL 20.** In accordance with Guidelines for users of the JI PDD form version 04, please, explicitly and clearly distinguish: a) 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 regarding the PDD;	CL 20	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	b) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination regarding the PDD; and c) Data and parameters that are monitored throughout the crediting period.		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The monitoring plan describes the methods employed for data, such as electricity meters within the automated system for electricity metering, heat meters, weight measuring equipment, laboratory analyses, as well as data collection frequency (annually or monthly) and recording (electronic/paper).	OK	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	These are Formulae: D1 – 1.2 for project emissions, D 2 – 2.2.1 for baseline emissions Leakage is not calculated, D 3 for emission reduction.	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formula is explained in the respective sections?		
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Consistent variables, equation formats, subscripts etc. are used.	OK	OK
36 (f) (iii)	Are all equations numbered?	Yes	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	N/A	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	N/A	OK	OK
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration on the baseline scenario and calculating the baseline emission in the monitoring plan and on spreadsheet.	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	All formulae are clearly explained	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	The monitoring is in line with current operational routines.	OK	OK
36 (f) (vii)	Are references provided as necessary?	**CAR 21.** Specific reference such as paragraph, page, table to the "National Inventory Report of Ukraine" should be provided for the parameters $OXID_{diesel}$ and W_{diesel} **CAR 27.** Please, provide correct name for the "National Inventory Report of Ukraine" in Table D.1.1.3. of the PDD.	CAR21 CAR27	OK OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	All key assumptions are explained in a transparent manner, when applicable.	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?	Uncertainty level of methane emission factor for husk is determined according to ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" (version 11.2.0) and is considered to be high. Conservativeness factor was applied to	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		determine this parameter in accordance with methodology requirements		
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	The low level of uncertainty for measuring key parameters and further calculation of emission reductions is stipulated by: - applying the approved methodology and tools to it, - manufactures' passports and certificates for the project equipment, - parameters defined for the materials and resources by their suppliers, - accreditation certificates of the laboratories and metrological organizations involved in the project.	OK	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	Monitoring plan refers to state statistic forms 2-tp-air and 4 MTP listed in References Section of the present Determination report as Category 2 Documents #109-110.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	N/A	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	QC/QA procedures are outlined in PDD Section D.2. These are routine enterprise procedures. **CL 03.** Please, present documents for programmable logic controller (Siemens S7)	CL03 CL06 CAR04	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	validity and accuracy are kept and made available upon request?	**CL 06.** Please, submit passports/ certificated for the measuring equipment involved in the project. **CAR 04.** According to the passport of the principal boiler VYNCKE, it model type is JNO/SAS 73. Please, make due corrections to the PDD.		
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The operational and management structure that the project participants will implement in order to monitor emission reduction generated by the project is described in sufficient detail in PDD Section D.3.	OK	OK
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	On the whole, monitoring techniques are in line with current operation routines at the enterprise and reflect good monitoring practices appropriate to the project type.	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?	Tables D.1.1.1 and D.1.1.3 provide compilation of all data needed to monitor project and baseline emissions. **CL 19.** Please, explain what figure 1 in a column 7 (Proportion of data to be monitored) of sections D.1.1.1. and D.1.1.3. stands for. **CAR 28.** Please, give explanations and justifications as for the use of data concerning the $NCV_{biomass}$ parameter provided by "Sater" laboratory. This parameter is not a fixed value and is a subject for	CL19 CAR28	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		constant (periodic) monitoring. Please, add needed explanation and justification as for this parameter, define the frequency for its monitoring and explain how the measurements will be taken during the project implementation.		
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 all data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period.	OK	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?	Selected elements of the applied methodology ACM0006 together with elements supplementary developed by the project participants are in line with 36 above	OK	OK
Approved CDM methodology approach only_Paragraphs 38(a) – 38(d)_Not applicable				
Applicable to both JI specific approach and approved CDM methodology approach_Paragraph 39_Not applicable				
Leakage				
JI specific approach only				
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	**CAR 24.** The PDD Section B.3.describing the project boundary should contain an assessment of the potential leakage of the project and appropriate explanation which sources of leakage are to be calculated and which can be neglected. Please, add it to this section as well.	CAR24	OK
40 (b)	Does the PDD provide a procedure for an	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	ex ante estimate of leakage?			
Approved CDM methodology approach only_Paragraph 41_Not applicable				
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	The project activity will use Option (a): assessment of emissions or net removals in the baseline scenario and in the project scenario		
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	The estimation of emission reductions were made based on the actual data of the plant operation for December 2010 – October 2011. The PDD provides estimates of: (a) Emissions for the project scenario (Section E.1); (b) N/A; (c) Emissions for the baseline scenario (Section E.4); (d) Emission reductions adjusted by leakage (Section E.6).	OK	OK
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	of net removals adjusted by leakage?			
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In 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? (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	(a) Estimates in 43 are given on the periodic basis, from the beginning until the end of the crediting period, in tonnes of CO2 equivalent, on a source-by-source basis, for each GHG. (b) The formulae used in PDD are consistent. (c) Key factors influencing the baseline emissions and the activity level of the project and the project emissions are taken into account, as appropriate. (d) Data sources used for calculating the estimates are clearly identified, reliable and transparent. (e) Default values listed in section 36 (b) above, are taken from identified sources. (f) Estimation in 43 is based on conservative assumptions and the most plausible scenario in a transparent manner. (g) Estimates in 43 are consistent throughout the PDD. The annual average of estimated emission reductions calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period and multiplying by twelve. **CL 04.** Please, make clear whether the emission reductions were calculated for the entire December 2010 or for its part starting with the beginning of the crediting period (15 December 2010)? **CL 05.** Please, provide the reports on the sunflower	CL04 CL05 CL08 CL09 CAR06 CAR07 CAR08 CAR09 CL10 CL11 CL12 CAR31	OK OK OK OK OK OK OK OK OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (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?	husk processed, fossil fuel and electricity power consumed and heat power generated that were used for the emissions reduction calculation **CL 08.** Please, explain why in contrast to the monthly production reports, the monthly fact sheets don't contain data on the heat energy generated by the back-up boiler. Which data on heat generation were used by the project participants for making calculations? **CL 09.** Please, provide the updated emission reduction calculations **CAR 06.** According to the emission reduction calculations presented in the excel file, the quantity of sunflower husk consumed in 2010 doesn't correspond to the one presented in the production report provided by the plant Please, make it consistent. **CAR 07.** According to the production reports the quantity of the sunflower husk consumed for the 9 months in 2011 is 14732,58 t. which differs from the data presented in the calculation spreadsheet **CAR 08.** According to the production reports for 9 months in 2011 the quantity of the heat energy generated is about 38 Tkal which doesn't correspond to the data presented in the ER calculation spread sheet		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 09. There is also inconsistency between the data on electricity consumption presented in the ER calculation spread sheet and the production reports presented to the determination team during the site visit **CL 10.** Please, provide an exemplary calculation of the baseline emissions made for 2010 **CL 11.** Please demonstrate in what way the sunflower husk solid residual is determined/recalculated. **CL 12.** Please, explain in what way the NCV of the sunflower husk solid residual is calculated and who will perform those calculations during the project implementation. **CAR 31.** Estimations of baseline and project emissions, as well as the emission reduction should be made separately for the Kyoto first commitment and post-Kyoto periods. Please, make respective corrections to Section E of the PDD.		
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?	Illustrative estimation of emission reduction is made on the excel spreadsheet and made available to AIE. No calculation errors were observed.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Approved CDM methodology approach only_Paragraphs 47(a) – 47(b)_Not applicable				
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	PDD Section F.2 lists and attaches documentation on the analysis of the environmental impacts of the project in accordance with procedures as determined by the host Party. For more details, please, refer to Section 4.10. of the Present determination report. **CAR 03.** Please, provide statistic reports on the atmospheric air protection relating to the project	CAR03	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?	N/A	N/A	N/A
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any?	The project activities are published in mass media. No negative responses were received.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(b) The nature of the comments? (c) A description on whether and how the comments have been addressed?			
Determination regarding small-scale projects (additional elements for assessment) _Paragraphs 50 - 57_Not applicable				
Determination regarding land use, land-use change and forestry projects_Paragraphs 58 – 64(d)_Not applicable				
Determination regarding programmes of activities (additional/alternative elements for assessment) _Paragraphs 66 – 73_Not				

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
CAR 01. There's no written project approval by the Host Party	19	Letters of Approval will be obtained after the determination deemed final	Pending
CL 01. Please, explain why emissions from the consumption of electricity from the national grid for own needs are excluded from the baseline scenario?	32 (d)	The conservative approach according to the ACM0006 methodology (table 1) was used for baseline emissions estimation. Pursuant to it emissions from energy consumption in a baseline are not taken into account.	CL 01 is closed based on the provided explanation

CL 02. It is stated in Section A.1. of the PDD that the enterprise is forced to build a back-up boiler house which will operate on fossil fuel. The necessity of a back-up boiler house construction may be explained by the fact that the boiler house operating on biofuel largely depends on sunflowers harvest in Ukraine. Bad sunflowers harvest may cause a lack of biofuel to satisfy production and heating needs of Bandursky VOEP LLC. In addition to this monthly reports on the boiler house operation submitted to the verifiers demonstrate that the substantive quantities of fossil fuel were consumed for a back-up boiler operation. Please, explain why the emissions from the consumption of fossil fuel are not included in the project scenario?	32 (d)	The aim of the project is the substitution of fossil fuel by the biomass residues for heat generation. According to ACM0006 methodology the amount of heat generated from biomass residues is taken into account for emission reduction units calculation. The amount of heat generated from fossil fuel cannot lead to GHG reduction since it is the baseline. According to the ACM0006 methodology the amount of heat generated from fossil fuel combustion and hence the amount of emissions from fossil fuel combustion is not taken into account neither in the baseline nor in the project scenario. According to the production reports diesel fuel combustion by the back-up boiler for July-August 2011 was not taken into account while calculating ERUs. The total amount of diesel fuel combusted for these three months equals to less than 1 ton. According to the paragraph 14 of "Guidance on criteria for baseline setting and monitoring" (version 03) these emissions are insignificant (less than 1%) and may not be included in the calculation.	CL 02 is closed based on the provided explanation

CL 03. Please, present documents for programmable logic controller (Siemens S7)	36 (i)	Have been submitted during the site visit	CL 03 is closed based on the required documents submitted to the determination group during the site visit
CAR 02. Please, bring in line the data relating to the length of the crediting period and the start date of the crediting period.	34 (c)	*Response #1:* All the required changes were made in the PDD ver.4 *Response #2:* The required alterations were made to the Section C.3	*Conclusion on response #1:* The Issue is not closed Please refer to the verifiers request provided in CAR26 *Final conclusion:* The issue is closed based on the corrections made to the length of the crediting period.
CL 04. Please, make clear whether the emission reductions were calculated for the entire December 2010 or for its part starting with the beginning of the crediting period (15 December 2010)?	45	*Response #1:* ERUs calculation has been made since the beginning of the crediting period (December 15, 2010). Boiler house production reports have been documented since December 15, 2010. *Response #2:* The required alterations were made to the Section C.3	*Conclusion on response #1:* The Issue is not closed Please refer to the verifiers request provided in CAR26 *Final conclusion:*
CAR 03. Please, provide statistic reports on the atmospheric air protection relating to the project	48 (a)	Have been submitted during the site visit	CAR 03 is closed based on the required documents submitted to the determination group during the site visit

CL 05. Please, provide the reports on the sunflower husk processed, fossil fuel and electricity power consumed and heat power generated that were used for the emissions reduction calculation	45	ERUs calculation was made according to the estimated data of boiler house operation that were provided by the enterprise at the beginning of 2011 after the commissioning of boiler house.	The issue is closed based on the documents provided and further corrections made to the PDD
CL 06. Please, submit passports/ certificated for the measuring equipment involved in the project.	36 (i)	Have been submitted during the site visit	CL 06 is closed based on the required documents submitted to the determination group during the site visit
CAR 04. According to the passport of the principal boiler VYNCKE, it model type is JNO/SAS 73. Please, make due corrections to the PDD.	36 (i)	Have been submitted during the site visit	The issue is closed based on the documents provided and appropriate corrections made to the PDD
CAR 05. According to the Guidance on criteria for baseline setting and monitoring as well as the Guidelines for users of the JI PDD form the choice of approach used by the project participants for a baseline setting, demonstration of additionality and establishing a monitoring plan should be explicitly indicated.	22	*Response #1:* The choice of monitoring plan is described in the section D.1 of the PDD (Separate elements of ACM0006 methodology were used for the choice of MP). The monitoring parameters (including their value and source of data) used for the ERUs calculation are provided in the Annex 3 to the PDD. *Response #2:* The required alterations were made to the Sections B.1, B.2, D.1, Annex 2, Annex 3	*Conclusion on response #1:* The issue is not closed. Please, indicate explicitly whether the JI specific or an approved CDM methodology approach was chosen for a baseline setting, demonstration of additionality and establishing a monitoring plan *Final conclusion:* Issue is closed based on the explicit indication of the approach chosen

CL 07. Please, explain why the among the options for estimation the efficiency of the energy generated system provided by the "Tool to determine the baseline efficiency of thermal or electric energy generation systems" version 01, the project participants chose the use of a default value (90%) whereas there's another option suggested by the Tool, namely option a) use of the manufacturer's load efficiency function that implies using the more specific values provided in the reserve boiler and, thus, to a more accurate value of the boiler efficiency	24	As it was stated in the PDD, the boiler working on fossil fuel is backup, this means it doesn't work constantly. Energy efficiency assessment of the boiler would not provide the objective estimation. This is because the efficiency evaluation is made under different loads which are hard to arrange because of the boiler working temporary. Boiler start-up and its work off-load is not financially feasible for the enterprise. Off-load work will increase the amount of GHG released into the atmosphere. Based on the mentioned above the conservative approach was chosen for estimating this parameter, according to which the default factor was chosen for the new oil flared boiler.	CL 07 is closed based on the sufficient explanation provided by the PPs.

CL 08. Please, explain why in contrast to the monthly production reports, the monthly fact sheets don't contain data on the heat energy generated by the back-up boiler. Which data on heat generation were used by the project participants for making calculations?	45	Separate sections for back-up boiler are filled in to the boiler house production report. The production reports data on the boiler house operating on sunflower husks are taken for ERUs calculation. According to the production reports diesel fuel combustion by the back-up boiler for July-August 2011 was not taken into account while calculating ERUs. The total amount of diesel fuel combusted for these three months equals to less than 1 ton. According to the paragraph 14 of "Guidance on criteria for baseline setting and monitoring" (version 03) these emissions are insignificant (less than 1%) and may not be included in the calculation.	CL 08 is closed based on the sufficient explanation provided by the PPs.
CL 09. Please, provide the updated emission reduction calculations	45	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011.	The issue is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets
CAR 06. According to the emission reduction calculations presented in the excel file, the quantity of sunflower husk consumed in 2010 doesn't correspond to the one presented in the production report provided by the plant Please, make it consistent.	45	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011.	The issue is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets

CAR 07. According to the production reports the quantity of the sunflower husk consumed for the 9 months in 2011 is 14732,58 t. which differs from the data presented in the calculation spreadsheet	45	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011.	The issue is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets
CAR 08. According to the production reports for 9 months in 2011 the quantity of the heat energy generated is about 38 Tkal which doesn't correspond to the data presented in the ER calculation spread sheet	45	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011.	The issue is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets
CAR 09. There is also inconsistency between the data on electricity consumption presented in the ER calculation spread sheet and the production reports presented to the determination team during the site visit	45	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011.	The issue is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets
CL 10. Please, provide an exemplary calculation of the baseline emissions made for 2010	45	The required alterations were made to the PDD based on the boiler house operation ex post data for December, 2010.	CL 10 is closed based on the documents provided and further corrections made to the PDD and calculation spreadsheets
CL 11. Please demonstrate in what way the sunflower husk solid residual is determined/recalculated.		Sunflower husk solid residual is recalculated according to the GOST 27313. Sunflower husk solid residual is indicated in the boiler-house production report.	CL 11 is closed based on the clarification provided

CL 12. Please, explain in what way the NCV of the sunflower husk solid residual is calculated and who will perform those calculations during the project implementation.	45	*Response #1:* Sunflower husk solid residual NCV is determined according to the data of the factor estimation research conducted by the SATER state laboratory. The project developers suggest to consider these data as fixed during the whole crediting period. *Response #2:* The required alterations were made to the Section D.2	*Conclusion on response #1:* The issue is not closed. For further comments on this issue, please, refer to CAR 28 *Final conclusion:* The issue is closed based on the explanation and appropriate amendments made to the PDD
CAR 13. Please indicate in the sub-step 2b the period during which the annual credit rate in foreign currency according to the National Bank of Ukraine was taken.	30	The required alterations were made in the financial model and PDD.	OK, the issue is closed.

CL 14. It is possible, where applicable, to use less conservative benchmark assessed according to the requirements of GUIDELINES ON THE ASSESSMENT OF INVESTMENT ANALYSIS version 5. According to this document in case when the precise financial structure is unknown the average annual financial resources cost might be calculated as arithmetical value of the shareholder's equity and debt. According to the data used by the developer, the cost of debt makes up 10,5%. As to the document algorithm the cost of equity equals to risk free rate, equity risk premium, and risk premium for the host country; = 3,0+6,5+7,5 = 17%, correspondingly. Risk premium for the host country source is http://www.stern.nyu.edu/~adamodar/pc/datasets/ctryprem.xls. The benchmark will correspondingly make up: 10,5*0,5+17*0,5 = 13,75%.	30	The required alterations were made in the financial model and PDD.	OK, the issue is closed.
CL 15. Please explain the origin (the value for which currency/country and period was taken) and provide the source of inflation rate in the financial model and/or in the PDD.	30	The required alterations were made in the financial model and PDD.	OK, the issue is closed.

CL 16. Diesel fuel is indicated in the PDD as the alternative for the project. Diesel fuel consumption at boiler houses is not a common practice because of the high price on fuel. Besides the indicated fuel prices are much lower than real ones. Maybe heavy fuel oil or any other heavy fuel was meant?	30	The required alterations were made to the PDD based on the boiler house operation ex post data for 10 months of 2011. Diesel fuel is exactly the baseline fuel and is used for heat generation at the back-up boiler house. Diesel fuel was chosen because diesel fuel NCV is higher than heavy fuel oil NCV, which means that in order to generate the same amount of heat less diesel fuel needs to be combusted than heavy fuel oil. This would lead to less amount of diesel fuel back-up storage. The financial model provides actual data on diesel fuel cost as of the end of 2010. The required alterations concerning diesel fuel average cost in 2011 were made to the financial model.	OK, the issue is closed.

CL 17. Please explain the operational costs on the boiler house and back-up fuel storage system.	30	Operational costs on boiler houses include annual costs spent on equipment operation and maintenance including repairs and calibration. For both boiler houses it was assumed that operational costs equal to approximately 5% from equipment value. This is a conservative assumption since boiler house equipment working on husks is more expensive and complex. There is no serial production of husk boilers in Ukraine. Each boiler is intentionally developed and produced by a relevant enterprise since husk boilers construction and production are more expensive in comparison to fossil fuel boilers that are in serial production. Operational costs for fuel back-up storage were excluded from the project.	OK, the issue is closed.
CAR 14. The equipment was commissioned in November or December 2010, i. e. being in operation only for a month this year but the operational costs for 2010 are accepted on the same level as for the following years, that can not be true. Please correct.	30	The required alterations were made in the financial model	OK, the issue is closed.

CAR 15. Please include project assets residual value. For this project it can possibly be the cost of equipment according to the metal scrap (in case the operational lifetime does not exceed 15 years), and also back-up fuel cost. Please take into account that the residual value must be calculated including inflation rate.	30	The back-up fuel cost was altered in the financial model taking into account the inflation rate. The maximum cost of metal scrap was defined as €0,5 mln in the last year of the crediting period. The required amendments were made to the financial model (the Revenues)	OK the issue is closed
CL 18. Please indicate whether all tariffs, investment articles and operational costs are indicated with VAT included or not	30	It has already been stated in the PDD: "The herein costs, rates and investments are listed without value added tax"	OK the issue is closed
CAR 16. The factor 0,75 was used while calculating the value “income from diesel fuel economy”. If the tax on income is also included, than two aspects are needed to be taken into account: 1. Income tax rate for 2011 according to the acting tax legislation makes up 23%, for 2012 – 21%, for 2013 – 19%, for 2014 and subsequent years – 16%. 2. According to the Annex 3 to the Tax Code the base for income tax calculation is the value that equals to gross revenues-gross expenses-depreciation. Income tax calculation under the project has to be made taking into account Ukrainian tax legislation.	30	The required alterations were made in the financial model	Please note that depreciation shall be deducted from the basis of the tax accounting. For example if we have depreciation period of 15 years with the initial value of the equipment at EUR 10 554K, than the depreciation will be EUR 704k. Thereby the tax for 2011 for example shall be calculated correctly in the following manner: (1329- 27-704)*0,234. See corrections made to the financial model in attached Excel file. Please apply the same corrections to +-10% variation models as well.

CAR 17. The current version of the PDD should be 03. Please, change it respectively.	-	After handling all the requests the version of the PDD will be changed onto 04	The number of the final PDD version has been changed respectively. CAR 17 is closed.
CAR 18. Please, provide the names for all submitted excel files.	-	The required changes will be made in excel files	The issue is closed based on the amendments made to the spreadsheets
CAR 19. Please, indicate from the very outset of the PDD that VOEP stands for Vegetable Oil Extraction Plant.	-	The required alterations were made to the PDD version 04, Section A.2	The issue is closed.

CAR 20. It's not clear from the PDD which approach for baseline setting, additionality demonstration and monitoring was chosen by the project participants. Please, specify it in accordance with the requirements of the applied "Guidance on criteria for baseline setting and monitoring" (version 3) as well as Guidelines for users of the JI PDD form version 04.	22	*Response #1:* Baseline setting was justified in Section B.1 of the PDD (Separate elements of ACM0006 methodology were used for baseline setting). Key parameters for baseline setting (including their value and source) used for emissions calculation are provided in Section B.1 of the PDD. The additionality of proposed project is assessed in Section B.2 of the PDD. "Tool for the demonstration and assessment of additionality" was used for assessment of the project additionality. The choice of monitoring plan is described in the Section D.1 of the PDD (Separate elements of ACM0006 methodology were used for choosing the monitoring plan). Monitoring parameters (including their value and source) used for emissions calculation are provided in Annex 3 of the PDD. *Response #2:* The required alterations were made to the Sections B.1, B.2, D.1, Annex 2, Annex 3	*Conclusion on response #1:* CAR 20 is not closed as the definition of the approach isincorrect. For further comments, Please, refer to CAR 05. *Final conclusion:* The issue is closed as the approach chosen by the PPs is now explicitly defined

CAR 21. Specific reference such as paragraph, page, table to the "National Inventory Report of Ukraine" should be provided for the parameters $OXID_{diesel}$ and W_{diesel}	36 (f) (vii)	*Response #1:* W_{diesel} – page 370, table П2.5; $OXID_{diesel}$ – page 382, paragraph 2 *Response #2:* The required alterations were made to the Section B.1, Annex 3	*Conclusion on response #1:* The issue is not closed. Those references should be provided in the respective tables of the PDD. *Final conclusion:* The issue is closed as the due amendments have been made to the PDD
CAR 22. Please, make it clear what in respect of the parameter W_{diesel} the following statement mean "Defined parameter is within the uncertainty range of IPCC default value"	36 (b) (ii)	This phrase was excluded from the PDD version 04	CAR 22 is closed based on the change made to the PDD.
CAR 23. Please, provide the explanation in the PDD text what the abbreviation SWDS stands for.	36 (b) (ii)	The required alterations were made to the PDD version 04, page 15	CAR 23 is closed as the respective explanation has been added to the PDD.
CAR 24. The PDD Section B.3.describing the project boundary should contain an assessment of the potential leakage of the project and appropriate explanation which sources of leakage are to be calculated and which can be neglected. Please, add it to this section as well.	40 (a)	*Response #1:* No leakages are foreseen according to the ACM0006 methodology. *Response #2:* The required alterations were made to the Section B.3	*Conclusion on response #1:* CAR 24 is not closed as there is no sufficient justification referred to the leakages on the project in Section B.3. *Final conclusion:* The required amendment has been made to the PDD

CAR 25. Pay your attention that the methodologies applied for baseline setting, additionality demonstration and monitoring are approved by the CDM Executive Board. Please, make appropriate corrections to the respective sections of the PDD.	22	The required alterations were made to the Sections B.1, D.1, Annex 2, Annex 3	The issue is closed as the required corrections have been made to the respective sections of the PDD.
CAR 26. There is a mistake in defining the length of the crediting period. As it is considered to start on the 15th of December, then the PPs should specify it taking in consideration years, months and days as well. Please, make appropriate corrections.	34 (c)	*Response #1:* According to the Guidelines for users of the JI PDD form version 04 the amount of years and months is mentioned in the Section C *Response #2:* The required alterations were made to the Section C.3	*Conclusion on response #1:* The issue is not closed as the required corrections have not been made to the respective sections of the PDD. *Final conclusion:* The issue is closed as the length of the crediting period has been corrected.
CL 19. Please, explain what figure 1 in a column 7 (Proportion of data to be monitored) of sections D.1.1.1. and D.1.1.3. stands for.	36 (l)	According to JI PDD form **the** "**Proportion** of data to be monitored" is indicated in the columns. **Proportion** 1 equals to 100% in percentage rate.	The issue is closed based on the explanation provided.
CAR 27. Please, provide correct name for the "National Inventory Report of Ukraine" in Table D.1.1.3. of the PDD.	36 (f) (vii)	The abbreviation "National Inventory Report of Ukraine" was provided on the page 20 of the PDD	The issue is closed

CAR 28. Please, give explanations and justifications as for the use of data concerning the $NCV_{biomass}$ parameter provided by "Sater" laboratory. This parameter is not a fixed value and is a subject for constant (periodic) monitoring. Please, add needed explanation and justification as for this parameter, define the frequency for its monitoring and explain how the measurements will be taken during the project implementation.	36 (l)	*Response #1:* The official national measurements data provided by the state "Sater" laboratory were taken for choosing the parameter. According to the ACM0006 requirements national data are in priority for setting the parameter. As it was mentioned in the PDD the monitoring of the parameter is conducted on the annual basis. The maximum value of the parameter will be chosen from available sources in order to provide the conservativeness of approach for ERUs calculation. *Response #2:* The required alterations were made to the Section D.2	*Conclusion on response #1:* CAR 28 is not closed. Please, provide justification concerning the use of data provided by the "Sater" laboratory for the current project, as well as the respective references to the information used. *Final conclusion:* CAR 28 is closed as the comprehensive explanation as for the parameter and its measurements was provided in the PDD
CAR 29. In accordance with the JI guidelines, JI PDD form shall be completed and submitted in English. Please make translations for the Figures 5, 6 and 7 and provide explanation as for what the abbreviations stand for.	-	*Response #1:* The required alterations were made to the PDD version 04 *Response #2:* The required alterations were made to the pictures	*Conclusion on response #1:* CAR 29 is not closed as there are translation mistakes and typos in those figures *Final conclusion:* CAR 29 is closed as the translation mistakes have been corrected
CAR 30. The format of the table in Section E.6. is altered. Please, correct it in accordance with the required form.	-	The required alterations were made to the PDD version 04	The format has been corrected. CAR 30 is closed

CAR 31. Estimations of baseline and project emissions, as well as the emission reduction should be made separately for the Kyoto first commitment and post-Kyoto periods. Please, make respective corrections to Section E of the PDD.	45	The required alterations were made to the PDD version 04	CAR 31 is closed based on the corrections made to the PDD
CAR 32. In accordance with paragraph 25 of GUIDANCE ON CRITERIA FOR BASELINE SETTING AND MONITORING version 03 used by the PPs for the baseline setting, a baseline shall be established taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. Please, provide description of the key factors that affect a baseline and shall be taken into account in accordance with the requirements of the GUIDANCE.	23	*Response #1:* This information is provided in the Section B.1 of the PDD *Response #2:* The required alterations were made to the Section B.1	*Conclusion on Response # 1* CAR 32 is not closed. Please, define the key factors that affect a baseline in accordance with paragraph 25 of GUIDANCE ON CRITERIA FOR BASELINE SETTING AND MONITORING version 03 *Final conclusion:* CAR 32 is closed as the required information has been added to the PDD

CL 20. In accordance with Guidelines for users of the JI PDD form version 04, please, explicitly and clearly distinguish: a) 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 regarding the PDD; b) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination regarding the PDD; and c) Data and parameters that are monitored throughout the crediting period.	36 (d)	*Response #1:* The required alterations were made to the PDD version 04 *Response #2:* The required alterations were made to the Section D.3	*Conclusion on response #1:* CL 20 remains open. Please, indicate where the required changes have been made to the PDD *Final conclusion:* CL 20 is closed, as the respective parameters have been distinguished