DETERMINATION REPORT
COMPANY "MT-INVEST CARBON" LTD

DETERMINATION OF THE "IMPLEMENTATION OF ENERGY EFFICIENCY MEASURES IN ENTERPRISES OF "AGRARIAN HOLDING AVANGARD"

BUREAU VERITAS CERTIFICATION

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DETERMINATION REPORT

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19/10/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
Company "MT-Invest Carbon" LTD	Mr. Falendysh Yaroslav

Summary:

Bureau Veritas Certification has made the determination of the "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard" project of Company "MT-Invest Carbon" LTD located in 14 regions 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 and Corrective Action Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

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

Report No.:	Subject Group:
UKRAINE-DET/0552/2012	JI

Project title:
"Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard"

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Work approved by:
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Indexing terms

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1 INTRODUCTION

Company “MT-Invest Carbon” LTD has commissioned Bureau Veritas Certification to determine its JI project “Implementation of energy efficiency measures in enterprises of “Agrarian Holding Avangard” (hereafter called “the project”) at the14 regions 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 emission reduction units (ERUs).

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

1.2 Scope

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

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

1.3 Determination team

The determination team consists of the following personnel:

Rostislav Topchiy
Bureau Veritas Certification, Climate Change Lead Verifier

Vitaliy Minyaylo
Bureau Veritas Certification, Climate Change Verifier

Denis Pishchalov
Bureau Veritas Certification, Financial Specialist

This determination report was reviewed by:

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

2 METHODOLOGY

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

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

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

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

2.1 Review of Documents

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

To address Bureau Veritas Certification corrective action and clarification requests, Company “MT-Invest Carbon” LTD revised the PDD and resubmitted it on 01/10/2012.

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

2.2 Follow-up Interviews

On 22-23/08/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of LLC "Agrarian Holding Avangard", Agricultural Limited Liability Company "Donetsk birds", Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited", Public Joint Stock Company "Poultry farm "Chervony Prapor", Public Joint Stock Company "Avangard", Private Joint Stock Company "Chernivetska Poultry farm", Public Joint Stock Company Agricultural Company "Avis", Agribusiness Farm LLC "Yuzhnaya-Holding", Limited Liability Company "Areal-Snigurivka", Public Joint Stock Company "Chornobayivske", LLC "Slov'yany", Limited Liability Company "Makarivsk Birds", Public Joint Stock Company "Kirovskiy" and Company "MT-Invest Carbon" LTD were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
LLC "Agrarian Holding Avangard" and other project partners	➢ Project history ➢ Project approach ➢ Project boundary ➢ Implementation schedule ➢ Organizational structure ➢ Responsibilities and authorities ➢ Training of personnel ➢ Quality management procedures and technology ➢ Rehabilitation/Implementation of equipment (records) ➢ Metering equipment control ➢ Metering record keeping system, database ➢ Technical documentation ➢ Monitoring plan and procedures ➢ Permits and licenses ➢ Local stakeholder's response.
CONSULTANT: Company "MT-Invest Carbon" LTD	➢ Baseline methodology ➢ Monitoring plan ➢ Additionality proofs ➢ Calculation of emission reduction.

2.3 Resolution of Clarification and Corrective Action Requests

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

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

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

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

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

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

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

3 PROJECT DESCRIPTION

The project aims at achieving of the greenhouse gas emissions reduction by decreasing of specific energy consumption at enterprises of “Agrarian Holding Avangard”, and improving of production waste management practice (chicken manure).

After establishing the “Avangard” Holding company in 2007, one of the primary actions that have been implemented by the company management, was a large-scale modernization of enterprises, carried out to improve the technological level of production, to provide a high quality

of products, to improve energy efficiency and to implement modern waste management practices as one of the most important factors for ensuring a long-term operation of enterprises. Thus, in 2007-2009 Company's production facilities were completely modernized and are currently among the most technically advanced enterprises in Ukraine. Implementation of energy efficiency measures has been continued further in 2010-2011. Under the program of modernization and reconstruction the following actions were realized:

- Energy supply schemes optimization;
- Pumping, compressing and climate equipment modernization, including engines replacement;
- Lighting systems renovation, including replacement of light bulbs with the energy efficient lamps;
- The use of integrated control systems in all production facilities to automate the production process;
- Shift to solid chicken manure storage practice at the farms that used to store manure in liquid form;
- Shift to composting or daily removal of chicken manure to the fields at small-capacity farms with a relatively small amount of manure produced; or at those farms where arising from the aspects of technological process (less frequent removal of manure from a floor house or litter use), solid manure storage was applied in practice.

Currently, most of the planned activities under the Program have been already implemented and resulted in the generation of CO_2 emissions reduction. The Company is supervising every phase of shell eggs and egg products production process, thus cutting the costs and improving the quality control. The project includes modernization of 21 farms and their divisions (total number of modernized facilities − 30), located in 14 regions of Ukraine. The first steps of equipment replacement and changes in waste management practices were implemented in 2007, which resulted in the start of emission reductions generation in 2008. Project duration is 13 years, which is an operating lifetime of the installed facilities for poultry housing, while the use of this equipment ensures the characteristics of liquid chicken manure to be preserved (continuous removal of manure by belt conveyor without dry biomass being added).

Situation before project implementation

Before the beginning of the project realization, most of poultry farms were working while using equipment manufactured in Soviet times, according to standards developed under the availability of cheap energy resources. It is characterized by limited effective power adjustment, low process automation, high heat losses or performance non-productive work. Since the time of its production, new technologies have raised in the market, the use of which allowed for achieving of significant energy savings, for instance light-emitting-diode (LED) lighting systems, more efficient transformers, and others.

As for the waste management, the poultry farms should have to bury their production waste within the received limits of waste generation paying the prescribed fee. Waste from poultry slaughtering, egg shell and birds' mortality should have to be disposed at the special plants. Chicken manure placed in storage, where it is taken in solid (water content less than 50%), plastic (water content of 50-82%) or liquid (water content over 82%) consistency that depends on a technological process of a particular plant. Significant volume of manure accumulated in a storage led to arising of anaerobic conditions of fermentation, which resulted in generation of significant amount of methane, which is a greenhouse gas.

Baseline scenario
In the baseline scenario, facilities would have continued to work with the same specific power consumption, as well as before the project realization. In case of equipment failure, its replacement would have been carried out element-by-element to the equipment with similar technical specification that would have not led to the emergence of energy-saving effect due to the lack of systematic approach and limited opportunities for optimizing of energy consumption.

Chicken manure would have been mixed as it had been produced, with no additional operations aimed at its drying, addition of dry biomass and its subsequent composting.

Project scenario
In the project scenario a large-scale modernization of enterprises is taking place, along with replacing equipment that is selected based on its technical specifications in terms of power consumption and ability to optimize its performance under particular conditions at a facility. When choosing the equipment, such additional features as drying of manure at the stage of its collection in the floor house and its transportation by belt conveyor are also taken into account. Therefore, the derived manure is drier, but after the addition of dry biomass its water content gets to level as it gets while storing in solid substance. At the facilities where the amount of manure produced per day is small, the shift to the method of removing to the fields is occurring. While being distributed into small portions, the chicken manure decomposes quite quickly, when turning into valuable fertilizer, thus the high level of its aeration is ensured, due to which anaerobic fermentation and the appropriate allocation of methane is being significantly reduced. At the new facilities with great capacity, received manure in solid form is subjected to composting, during which a mixture of litter and manure from time to time is being stirred to ensure better access of oxygen. Microbiologic specimens may be added in order to accelerate decomposition of chicken manure to substances that can be easily assimilated by plants. The resulting product is ready for use as a fertilizer; it has no strong odor and does not pollute groundwater with infiltrate.

The identified areas of concern as to Description of the project, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 01, CAR 02, CAR 03, CAR 04, CAR 05, CAR 06, CAR 07).

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 25 Corrective Action Requests, 05 Clarification.

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

4.1 Project approvals by Parties involved (19-20)

The project has already received Letter of Endorsement № 2678/23/7 on the JI project "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard" dated 20/09/2012 issued by State Environmental Investment Agency of Ukraine.

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

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

Bureau Veritas Certification will check the letters against paragraphs 19 - 20 of the DVM.

As the project has no approvals by the Parties involved, CAR 08 remains pending and will be closed after report finalizing (refer to the Appendix A).

4.2 Authorization of project participants by Parties involved (21)

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

4.3 Baseline setting (22-26)

The PDD explicitly indicates that using a methodology for baseline setting and monitoring developed in accordance with appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline.

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

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

- *Continuation of existing situation that does not require any investment.* According to this alternative the existing equipment is used until its operational lifetime ends up. The alternative does not require any investments and costs, and is unattractive in long-term perspective, because the strategy of "Agrarian Holding Avangard" under favorable conditions foresees future intensive development and growth in output.

- *Continuation of existing situation, which requires the cost for equipment maintenance.* This alternative envisages the continuation of the same specific power consumption, as well as at the pre-project level. After the equipment failure, its replacement would have been carried out element-by-element to the equipment with similar technical specification that would have not led to the emergence of energy-saving effect due to the lack of systematic approach and limited opportunities for optimizing of energy consumption.

- *Partial implementation of the planned program of energy saving, financed by a project owner.* This alternative foresees a partial implementation of energy efficiency program, implementation of those measures, which do not require significant capital investment and a sound technical upgrade of the facilities. This

option requires less money for its implementation. This option would not be appropriate due to the lack of a systematic approach; therefore the resulting effect would be much lower than the result from implementation of project activity. Whereas, while making a decision on the project the future income from the sale of ERUs was taken into account, in this case their volume was insufficient for a positive decision.

- *Implementation of project activity financed by a third party.* According to this alternative, the introduction of programs aimed at energy efficiency improvement at the facilities of "Agrarian Holding Avangard" would be performed and financed by a third party, i.e. energy service company. These companies offer to install some pieces of equipment and compensate the cost through the savings achieved. Given the large scale of implemented energy efficiency programs, this alternative could not be implemented due to the lack of energy service companies that could complete such a substantial order. In addition, while realizing this alternative, energy saving measures with not substantial effect, which lead to decrease of energy consumption along with the other measures, would not be implemented. Thus, the implementation of this alternative was unrealistic.

- *Project implementation without JI incentives.* This option includes the implementation of the project activity without registration it as JI project in the absence of additional financial revenues from the sale of ERUs. This option requires significant capital investment and generates the same emissions reductions likewise in the project scenario.

(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:

- Activities attributed to waste management in Ukraine are governed by the following regulations: Law of Ukraine "On ensuring sanitary- epidemiological welfare of population", the Law of Ukraine "On wastes"; the Law of Ukraine "On licensing system in economic activity"; the Cabinet of Ministers of Ukraine Decree # 1218 dated. 03/08/1998 "On approval of the procedure of drafting, approval and revision of waste generation and placement limits", the Cabinet of Ministers of Ukraine Decree # 1109 dated. 22/06/1999 "On approval of the Statute of the

State sanitary and epidemiological surveillance in Ukraine", President of Ukraine Decree # 400/2011 dated. 06/04/2011 "On state sanitary-epidemiological service of Ukraine".

- According to the provisions of this legislative environment, companies must receive from waste management designated executive authorities permits for waste disposal within the established limits in storages equipped in accordance with the applicable standards, and by paying the corresponding fee for waste disposal. In accordance with Instruction on procedure of calculation and payment for environmental pollution tax # 162, approved by the Ministry of Environmental Protection and Nuclear Safety of Ukraine and State Tax Administration of Ukraine dated. 19/07/99, in case of overlimiting waste disposal the fine is paid a five times the amount of the fee for waste disposal. Also, according to Chapter VII of the Tax Code of Ukraine on December 2, 2010 # 2755, enterprises must pay an environmental tax equal to 1,25 UAH per ton of manure, which have no affect whether on waste or its chemical composition.

All explanations, descriptions and analyses pertaining to the baseline in the PDD were found adequate and the baseline is identified appropriately.

4.4 Additionality (27-31)

The most recent version of the "Combined tool to identify the baseline scenario and demonstrate additionality" approved by the CDM Executive Board was used. All explanations, descriptions and analyses are made in accordance with the selected tool.

Additionality proofs are provided. Five alternative scenarios to the project activity were identified and proven to be in compliance with mandatory legislation and regulations taking into account the enforcement in the region and Ukraine.

The main barrier that prevents the implementation of project activities is financial barrier. The total cost of the implemented activities under the project is about 460 500 thousand UAH. This is a significant cost, which the project owner did have at the time of making the decision on implementation of the project activities, and they should be involved in capital market.

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 BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 09, CAR 10, CL 01).

4.5 Project boundary (32-33)

The project boundary defined in the PDD encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

(i) Under the control of the project participants, such as anaerobic digestion of poultry waste (chicken manure);

(ii) Reasonably attributable to the project such as Electricity consumption generated by power plants connected to the United Energy System of Ukraine; and

(iii) Significant, i.e., as a rule of thumb, would by each source account on average per year over the crediting period for more than 1 per cent of the annual average anthropogenic emissions by sources of GHGs, or exceed an amount of 2,000 tonnes of CO_2 equivalent, whichever is lower.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD.

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 began, and the starting date is 12/01/2006, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 13 years (156 months).

The PDD states the length of the crediting period in years and months, which is 13 years or 156 months (5 years or 60 months for the first commitment period and 8 years or 96 months for the period following the first commitment period) and its starting date as 01/01/2008, which is on the date the first emission reductions are generated by the project.

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

The PDD states that the extension of its crediting period beyond 2012 is subject to the host Party approval, and the estimates of emission

reductions are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

The identified areas of concern as to Crediting period, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 11).

4.7 Monitoring plan (35-39)

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

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as statistics data; quality control (QC) and quality assurance (QA) procedures, schemes of monitoring system and data collection for Monitoring Report, responsibilities for data management 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. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions to be monitored such as annual methane conversion factor for uncovered anaerobic lagoons, annual methane conversion factor for solid storage, annual methane conversion factor for daily removal to the fields, annual methane conversion factor for composting, global warming potential for methane, methane density, maximum potential of methane generation from manure, amount of volatile solids generated from manure, methane emission factor for collection, storage and use of chicken manure using uncovered anaerobic lagoons, methane emission factor for collection, storage and use of chicken manure for solid storage, methane emission factor for collection, storage and use of chicken manure for daily removal to the fields, methane emission factor for collection, storage and use of chicken manure for composting, electricity consumption by poultry farm, average number of birds permanently kept at poultry farm, indirect specific carbon dioxide emissions in the period of consumption of electricity by consumers which are classified as 2nd class.

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already

at the stage of determination, such as annual methane conversion factor for uncovered anaerobic lagoons, annual methane conversion factor for solid storage, annual methane conversion factor for daily removal to the fields, annual methane conversion factor for composting, global warming potential for methane, methane density, maximum potential of methane generation from manure, amount of volatile solids generated from manure, methane emission factor for collection, storage and use of chicken manure using uncovered anaerobic lagoons, methane emission factor for collection, storage and use of chicken manure for solid storage, methane emission factor for collection, storage and use of chicken manure for daily removal to the fields, methane emission factor for collection, storage and use of chicken manure for composting, indirect specific carbon dioxide emissions in the period of consumption of electricity by consumers which are classified as 2nd class.

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

(iii) Data and parameters that are monitored throughout the crediting period, such as electricity consumption by poultry farm, average number of birds permanently kept at poultry farm.

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

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

Emissions from the project activity are calculated as follows:

$$PE_y = PE_{EC,y} + PE_{AW,y}$$

where:

PE_y Project emissions during the period y, tCO_2e;

$PE_{EC,y}$ Project CO_2 emissions attributable to the electricity consumption by the poultry farm in period y, tCO_2;

$PE_{AW,y}$ Project GHG emissions from anaerobic fermentation of manure at the poultry farm *i* in period *y*, tCO_2e.

Baseline emissions are calculated as follows:

$$BE_y = BE_{EC,y} + BE_{AW,y}$$

where:

BE_y Baseline emissions during the period *y*, tCO_2e;

$BE_{EC,y}$ Baseline CO_2 emissions attributable to the electricity consumption by the poultry farm *i* in period *y*, tCO_2;

$BE_{AW,y}$ Baseline GHG emissions for anaerobic fermentation of manure at the poultry farm *i* in period *y*, tCO_2e.

The annual emission reductions are calculated as follows:

$$ER_y = BE_y - LE_y - PE_y$$

where:

ER_y Emission reduction under JI project in period *y*, tCO_2e;

LE_y Leakage due to the project realization in period *y*, tCO_2e;

BE_y Baseline emissions in period *y*, tCO_2e;

PE_y Project emissions in period *y*, tCO_2e.

The monitoring plan presents the quality assurance and control procedures for the monitoring process which are described in the section D.2 of the PDD. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities.

The owner of the project, which will implement the provisions of the monitoring plan into the structure of organization and quality management, is LLC “Agrarian Holding Avangard”. The poultry farm

management headed by its Director will be responsible for performance monitoring, data collection, registration, visualization, archiving of monitoring data, and periodic inspection of measuring instruments. A responsible person from the Company “Agrarian Holding Avangard” will control this process.

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

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature etc.) but not including data that are calculated with equations.

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

The identified areas of concern as to Monitoring plan, project participants response and BV Certification’s conclusion are described in Appendix A Table 2 (refer to CL 02, CL 03, CAR 12, CAR 13).

4.8 Leakage (40-41)

No leakage is expected in proposed project activity.

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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 PDD provides the ex ante estimates of:

(a) Emissions for the project scenario (within the project boundary), which are which are 601472 tonnes of CO_2e for 2008-2012, and 1108136 tonnes of CO_2e for 2013-2020.

(b) No leakage is expected.

(c) Emissions for the baseline scenario (within the project boundary), which are 6488022 tonnes of CO_2e for 2008-2012, and 13710480 tonnes of CO_2e for 2013-2020.

(d) Emission reductions adjusted by leakage, which are 5886550 tonnes of CO_2e for 2008-2012, and 12602344 tonnes of CO_2e for 2013-2020.

The estimates referred to above are given:

(a) On a annual basis;

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

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

(d) For each GHG gas, which is CO_2

(e) In tonnes of CO_2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol;

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

For calculating the estimates referred to above, key factors, e.g. fuel and equipment prices and availability, expected market development, etc. influencing the baseline emissions or removals 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 statistic data, actual historical monitored data, IPCC etc. are clearly identified, reliable and transparent.

Emission factors, such as emission factor for grid electricity consumption, was chosen by careful balancing of accuracy and reasonability and its choice was justified properly.

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

The estimates referred to above are consistent throughout the PDD.

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

The identified areas of concern as to Estimation of emission reductions or enhancements of net removals, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 14, CAR 15, CAR 16, CAR 17, CAR 18, CAR 19, CAR 20, CAR 21, CAR 22).

4.10 Environmental impacts (48)

The full scope EIA in accordance with the Ukrainian legislation has been conducted for each of the poultry farms attributed to the proposed project.

In general, the environmental impact of the project activity implementation is positive. Reducing of electricity consumption has an indirect positive impact on the environment through reduction of greenhouse gases and other products of fuel combustion at thermal power plants. Changing the methods of waste management reduces pollution of groundwater with products of chicken manure decomposition during its storage in lagoons and in excavated storage pits that also significantly effects on the conditions for the growth of pathogenic flora that may also spread through groundwater. In addition, less amount of manure anaerobic fermentation products release into the atmosphere, not only methane that in toxicology is classified as industrial poisons, but also ammonia, hydrogen sulfide and carbon monoxide. The applied methods of poultry manure composting can be used as fertilizers, a valuable recovery of soil fertility.

Implementation of the project activity also has a positive social impact through removing of the concentrated odor of chicken manure storage facilities and improving working conditions at poultry farms. Since most of the farms are located in rural areas, where the use of well water is widespread, the reduction of groundwater pollution has positive effects on health of locals.

No transboundary effects are not identified. Impacts that occur in any other country, and caused by the implementation of this project physically located entirely within Ukraine, were not identified.

The identified areas of concern as to Environmental impacts, project participants response and BV Certification's conclusion are described in Appendix A Table 2 (refer to CAR 23, CAR 24, CAR 25, CL 04).

4.11 Stakeholder consultation (49)

The public was informed on plans to build new facilities and departments of the farm, and their substantial reconstruction, by posting information on the company website and though carrying out press conferences about the plans of “Avangard”, following which the publications were prepared to be available for public both in print and online. Informing of stakeholders was conducted as a part of mandatory publication of Statement on impact in the local media in accordance with the procedure of preparation and examination of the EIA approved by the State Construction Standard DBN A.2.2.-1-2003.

The identified areas of concern as to Stakeholder consultation, project participants response and BV Certification’s conclusion are described in Appendix A Table 2 (refer to CL 05).

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

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

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the “Implementation of energy efficiency measures in enterprises of “Agrarian Holding Avangard” project located in 14 regions of Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the

project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

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

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

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

7 REFERENCES

Category 1 Documents:
Documents provided by Company "MT-Invest Carbon" LTD and that relate directly to the GHG components of the project.

/1/ PDD "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard", version 1.0 dated 28/06/2012
/2/ PDD "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard", version 2.0 dated 01/10/2012
/3/ Guidelines for Users of the Join Implementation Project Design Document Form, version 04, JISC
/4/ Joint Implementation Project Design Document Form, version 01
/5/ Glossary of JI terms, version 03, JISC.
/6/ Guidance on Criteria for Baseline Setting and Monitoring, version 03, JISC.
/7/ Combined tool to identify the baseline scenario and demonstrate additionality, Version 04
/8/ JISC "Clarification regarding the public availability of documents under the verification procedure under the Joint Implementation Supervisory Committee." Version 03
/9/ Joint Implementation Determination and Verification Manual. Version 01
/10/ Letter of Endorsement № 2678/23/7 on the JI project "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard" dated 20/09/2012 issued by State Environmental Investment Agency of Ukraine

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

№ п/п	Name of the document
1.	Letter of support №2678/23/7 of 20/09/2012 the project "Implementation of energy saving measures in the business of «Agricultural Holding Avangard». State Environmental Investment Agency of Ukraine
2.	Report of 12/01/2009 on average number of birds normally kept at poultry farms in 2008
3.	Report of 15/01/2010 on average number of birds normally kept at poultry farms in 2009
4.	Report of 13/01/2011 on average number of birds normally kept at

	poultry farms in 2010
5.	Report of 14/01/2012 on average number of birds normally kept at poultry farms in 2011
6.	Report of 15/07/2012 on average number of birds normally kept at poultry farms in the first half of 2012
7.	Report of 12/01/2009 on obtained number of eggs in poultry farms in 2008
8.	Report of 15/01/2010 on the obtained number of eggs in poultry farms in 2009
9.	Report of 12/01/2011 on obtained number of eggs in poultry farms in 2010
10.	Report of 14/01/2012 on obtained number of eggs in poultry farms in 2011
11.	Report of 15/07/2012 on obtained number of eggs in the first half of 2012
12.	Report of 12/01/2009 on electricity consumption by holding «Avangard» in 2008
13.	Report of 15/01/2010 on electricity consumption by holding «Avangard» in 2009
14.	Report of 14/01/2011 on electricity consumption by holding «Avangard» in 2010
15.	Report of 12/01/2009 on electricity consumption by holding «Avangard» in 2011
16.	Report of 12/01/2009 on electricity consumption by holding «Avangard» in the first half of 2012
17.	Report on 14/09/2012 on electricity consumers poultry LLC «Agrarian Holding Avangard»
18.	Order №127 of 12/01/2006 «On establishment of a working group on strategic modernization of enterprises holding Avangard. Ltd. «Cross»
19.	Strategic modernization program production companies holding

	«Avangard» in "Poultry". Ltd «Cross». 2007
20.	Act readiness of new and rebuilt equipment for operation № 1 of 12/12/2007
	Agricultural Limited Liability Company «Donetsk birds»
21.	Permission №1421586801-78 on pollutants emissions into the atmosphere by stationary sources (26/06/2009-26/06/2014)
22.	Permission №07.33 of 22/06/2011 to waste in 2012
23.	Permission №07.32 of 24/06/2010 to waste in 2011
24.	Letter №765 of 10/08/2012 «On the form of statistical reporting 1-VT «waste», 2-TP «Air»
25.	Protocol № 21 test knowledge of energy
26.	Protocol № 19/12-1 of 13/04/2012 commission meeting to test knowledge on safety
27.	Certificate of verification of knowledge on health №433 Naretya A.M. – Director
28.	Certificate of verification of knowledge on health №434 Gyrchak V.I. – Chief Power Engineer
29.	Certificate of verification of knowledge on health №435 Bunchuk S.V. - Engineer for safety
30.	Certificate of verification of knowledge on health №436 Hordynsky P.A. - Chief Agronomist
31.	Certificate of verification of knowledge on health №437 Karakai O.V. - Chief Technologist
32.	Certificate of verification of knowledge on health number 438 Hmelyar V.P. - Chief Engineer
33.	Certificate of verification of knowledge on health number 439 Kvas M.V. - Chief Mechanic
34.	List of electric meters
35.	Passport. Electricity meter NIK 2301 AK1 №0407385

	Subsidiary Poultry farm «Lozuvatska» of Public Joint Stock Company with limited liability «Avangardko investment public limited»
36.	Permission №1221800000-4 on pollutants emissions into the atmosphere by stationary sources (04/04/2007-05/04/2012)
37.	Permission №210 of 27/06/2005 to waste in 2006
38.	Limits №123 on generation and disposal of waste in 2011
39.	Limits №228 on generation and disposal of waste in 2010
40.	Limits №425 on generation and disposal of waste in 2009
41.	Limits №217 on generation and disposal of waste in 2008
42.	Limits №193 on generation and disposal of waste in 2007
43.	Limits №210 on generation and disposal of waste in 2006
44.	Report on air protection form 2-TP «air» in 2006
45.	Report on air protection form 2-TP «air» in 2007
46.	Report on air protection form 2-TP «air» in 2008
47.	Report on air protection form 2-TP «air» in 2009
48.	Report on air protection form 2-TP «air» in 2010
49.	Letter №386 of 13/08/2012 «The form of statistical reporting 1-VT «waste» and «Assessing the impact on the environment»
50.	Protocol №42 of 15/12/2011 Commission meeting on testing of the safety
51.	Protocol №44 of 16/12/2011 Commission meeting on testing of the safety
52.	Protocol №45 of 16/12/2011 Commission meeting on testing of the safety
53.	Protocol №43 of 15/12/2011 Commission meeting on testing of the safety

54.	List of electric meters
55.	Passport. Electricity meter «Energia-9» №47119
56.	Passport. Electricity meter NIK 2303 APK1 №0168359
	Public Joint Stock Company «Poultry farm "Chervony Prapor»
57.	Permission №91567 on pollutants emissions into the atmosphere by stationary sources (29/12/2005-31/12/2006)
58.	Permission №91567 on pollutants emissions into the atmosphere by stationary sources (17/11/2006-30/12/2009)
59.	Permission №4423684404-2 on pollutants emissions into the atmosphere by stationary sources (20/03/2009-20/03/2019)
60.	Permission №18.30 of 27/09/2004 to waste in 2005
61.	Permission №18.30 of 22/09/2005 to waste in 2006
62.	Permission №18.30 of 30/10/2006 to waste in 2007
63.	Permission №18.30 of 18/06/2007 to waste in 2008
64.	Permission №18.30 of 29/08/2008 to waste in 2009
65.	Limits №18.30 on generation and disposal of waste in 2005
66.	Limits №18.30 on generation and disposal of waste in 2006
67.	Limits №18.30 on generation and disposal of waste in 2007
68.	Limits №18.30 on generation and disposal of waste in 2008
69.	Limits №18.30 on generation and disposal of waste in 2009
70.	Limits №18.30 on generation and disposal of waste in 2010
71.	Limits №18.30 on generation and disposal of waste in 2011
72.	Report on air protection form 2-TP «air» in 2006
73.	Report on air protection form 2-TP «air» in 2007
74.	Report on air protection form 2-TP «air» in 2008

75.	Report on air protection form 2-TP «air» in 2009
76.	Report on air protection form 2-TP «air» in 2010
77.	Protocol №13 of 28/04/2012 Commission meeting on testing of the safety
78.	Protocol №14 of 28/04/2012 Commission meeting on testing of the safety
79.	Protocol of 03/06/2010 Commission meeting on testing of the safety
80.	List of electric meters
81.	Act / replace / technical verification settlement metering in electrical systems above 1000 V
	PJSC «Avangard»
82.	List of electric meters
83.	Passport. Electricity meter NIK 2301 AP1 №0799223
84.	Act of 04/07/2012 technical verification unit of electric energy
85.	Act of 21/03/2012 technical verification unit of electric energy
	Private Joint Stock Company «Chernivetska Poultry farm»
86.	Permission №7321080501-563 on pollutants emissions into the atmosphere by stationary sources (14/04/2010-14/04/2015)
87.	Permission №7321080501-563a amending Permit №7321080501-563 on pollutants emissions into the atmosphere by stationary sources (27/02/2012-14/04/2015)
88.	Permission №3/40 to waste in 2011
89.	Permission №3/21 to waste in 2010
90.	Letter №08-08/1 of 08/08/2012 «The electric meter commercial account»
91.	Act of 21/07/2011 inspection unit and replacement of electric

	meter
	Public Joint Stock Company Agricultural Company «Avis»
92.	Permission №6822481801-23 on pollutants emissions into the atmosphere by stationary sources (02/04/2012-09/07/2015)
93.	Permission №6812588 of 16/02/2012 to waste in 2012
94.	List of electric meters
95.	Passport. Electricity meter 2A5E7ULRT №41647
	Limited Liability Company «Areal-Snigurivka»
96.	Permission №4825710100-10 on pollutants emissions into the atmosphere by stationary sources (10/12/2009-10/12/2014)
97.	Permission №20.16/09 of 22/04/2009 to waste in 2009
98.	Permission №20.16/10 of 02/11/2009 to waste in 2010
99.	Permission №20.16/11 of 12/08/2010 to waste in 2011
100.	Permission №20.16/12 of 10/04/2012 to waste in 2012
101.	Act №1432 of 19/10/2011 technical inspection (replacement) Metering the networks above 1000 V
	Public Joint Stock Company «Chornobayivske»
102.	Permission №6510136300-93 on pollutants emissions into the atmosphere by stationary sources (27/04/2010-27/04/2015)
103.	Permission №324 to waste in 2009
104.	Permission №298 to waste in 2010
105.	Permission №07-14/9-2725 to waste in 2011
106.	Permission №07-13/7-5004 of 20/12/2011 to waste in 2012
107.	Limits on generation and disposal of waste in 2009
108.	Limits on generation and disposal of waste in 2010

109.	Limits on generation and disposal of waste in 2011
110.	Limits on generation and disposal of waste in 2012
111.	Report on air protection form 2-TP «air» in 2010
112.	Report on air protection form 2-TP «air» in 2011
113.	Waste form №1 «waste» in 2011
114.	List of electric meters
115.	Passport. Electricity meter NIK 2303 APK1 №0054953
116.	Passport. Electricity meter NIK 2303 APK1 №0105928
117.	Passport. Electricity meter CA4-195 №182026
	Limited Liability Company «Slov'yany»
118.	Impacts on the environment. Reconstruction MTF in breeding poultry per 100000 heads of hens with the prospect of expanding to 150000 heads in the Makariv district of Kiev region. A platform №1 at 90000 heads of poultry Heifer parent herd. UkrNDIagroproekt. 2001
119.	Permission №593-6 of 02/09/2011 to waste in 2012
120.	Report on air protection form 2-TP «air» in 2011
121.	Protocol №13 of 06/04/2012 Commission meeting on testing of the safety
122.	Protocol testing energy meters (TSU6800 №91007)
	Limited Liability Company «Makarivsk Birds»
123.	Impacts on the environment. Reconstruction of the existing facilities of the former complex feeding cattle in poultry egg direction for keeping laying hens in Makariv Kiev region. Ltd. «KINFO-ECO». Kyiv. 2011
124.	Report on air protection form 2-TP «air» in 2010
125.	Report on air protection form 2-TP «air» in 2011

126.	Protocol №58 of 24/11/2011 Commission meeting on testing of the safety
127.	Register of induction on safety
128.	Register of briefing on fire safety
129.	Passport. Electricity meter «Alfa A1140» №05019277
	Public Joint Stock Company «Kirovskiy»
130.	Permission №8-8 of 08/02/2006 to waste in 2006
131.	Permission №8-2 of 19/06/2007 to waste in 2008
132.	Permission №8-19 of 24/11/2008 to waste in 2009
133.	Permission №8-18 of 29/07/2009 to waste in 2010
134.	Permission №8-31 of 28/10/2010 to waste in 2011
135.	Permission №8-7 of 08/05/2012 to waste in 2013
136.	Report on air protection form 2-TP «air» in 2011
137.	Report on the inventory of emissions of pollutants. PE CES «Ecobespeka». Kirovograd. 2009
138.	Register №1 training on safety, fire safety, administrative staff, management, engineers and specialists. 2011
139.	Register №3 training on safety, fire safety. 2011
140.	Register №4 exercises on safety, fire safety and operating instructions. 2011
141.	Register №5 exercises on safety, fire safety and safety of workers motor park. 2011
142.	The training program on safety, fire safety, occupational health and safety of workers
143.	Protocol №3 of 28/01/2011 Commission meeting on testing of the safety
144.	Protocol №109 of 27/06/2012 Commission meeting on testing of

	the safety
145.	The act of carrying out work on the control of inspection records
	Agribusiness Farm LLC «Yuzhnaya-Holding»
146.	Permission №110166000/42 on pollutants emissions into the atmosphere by stationary sources (21/07/2008-30/09/2013)
147.	Permission №1130 of 19/08/2009 to waste in 2010
148.	Permission №1130 of 31/05/2011 to waste in 2012
149.	Limits №1130 on generation and disposal of waste in 2010
150.	Limits №1130 on generation and disposal of waste in 2012
	Limited Liability Company «Poultry farm «Volnovaska»
151.	Permission №1421587201-106 on pollutants emissions into the atmosphere by stationary sources (05/10/2010-05/10/2015)
152.	Permission №07.09 of 16/05/2012 to waste in 2013
153.	Report on air protection form 2-TP «air» in 2011
154.	Waste form №1 «waste» in 2011
155.	Plan of education on health officials from 20/02/2012
156.	Schedule and testing of employees in 2012
157.	Passport. Electricity meter NIK 2303 APK1 №0006517
	Private Research and Production Company «Interbusiness»
158.	Permission №1420980501-2 on pollutants emissions into the atmosphere by stationary sources (21/06/2010-21/06/2015)
159.	Report on air protection form 2-TP «air» in 2011
160.	Protocol №21 of 08/07/2011 Commission meeting on testing of the safety
161.	Protocol of the certification commission №42-12 of 22/06/2012

	Subsidiary «Rogatynska Poultry farm» of PJSC «Avangard»
162.	Permission №2624480802-1 on pollutants emissions into the atmosphere by stationary sources (03/05/2012-03/05/2017)
163.	Permission №149 of 30/12/2011 to waste in 2012
164.	Limits №149 on generation and disposal of waste in 2012
165.	Report on air protection form 2-TP «air» in 2007
166.	Report on air protection form 2-TP «air» in 2009
167.	Report on air protection form 2-TP «air» in 2011
168.	Protocol №7 of 05/05/2012 Commission meeting on testing of the safety
169.	Protocol №6 of 13/03/2012 Commission meeting on testing of the safety
170.	Passport. Electricity meter ZMD410CR44.0007.C2 №94679272
171.	Passport. Electricity meter ZMD410CR44.0007.C2 №94706079
	Public Joint Stock Company «Poultry farm «Pershe Travnya»
172.	List of electric meters
173.	Passport. Electricity meter ACE6000 №55055569
	Limited Liability Company «Trading house «Bogodukhivska Poultry Farm»
174.	Permission №6322081001-79 on pollutants emissions into the atmosphere by stationary sources (28/04/2009-28/04/2014)
175.	Permission №214 of 05/07/2006 to waste in 2007
176.	Permission №1120 of 26/12/2011 to waste in 2012
177.	Limits on generation and disposal of waste in 2010
178.	Limits on generation and disposal of waste in 2012
179.	Protocol №584 of 16/12/2011 Commission meeting on testing of

	the safety
180.	Protocol №16 of 25/05/2012 Commission meeting on testing of the safety
181.	Passport. Electricity meter ZMD410CR44.0007.C2 №95761344
	Public Joint Stock Company «Kross- Poultry farm «Zorya»
182.	Report on air protection form 2-TP «air» in 2011
183.	Waste form №1 «waste» in 2011
184.	Protocol №1 of 06/07/2011 Commission meeting on testing of the safety
185.	List of electric meters
186.	Passport. Electricity meter ZMD410CR44.0007 №95233719
187.	Passport. Electricity meter ZMD410CR44.0007 №9697623

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. Gavrilov A.V. - Director of Agricultural Limited Liability Company "Donetsk birds"

2. Hmelyar V.P. - Chief Engineer of Agricultural Limited Liability Company "Donetsk birds"

3. Hanzhela A.F. - Chief Power Engineer of Agricultural Limited Liability Company "Donetsk birds"

4. Belous O.S. - Director of Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited"

5. Shramko M.O. - Chief Power Engineer of Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited"

6. Temnyk V.M. - Chief Technologist of Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited"

7. Kostorenko Yu. M. - Chief Power Engineer of Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited"

8. Nagorniy E.V. - Mechanic of Subsidiary Poultry farm "Lozuvatska" of Public Joint Stock Company with limited liability "Avangardko investment public limited"

9. Kharlamova O.L. - Director of Public Joint Stock Company "Poultry farm "Chervony Prapor"

10. Ryazantsev V.M. Chief Engineer of Public Joint Stock Company "Poultry farm "Chervony Prapor"

11. Dobrovetskiy V.V. - Chief Power Engineer of Public Joint Stock Company "Poultry farm "Chervony Prapor"

12. Sydoruk B.R. - Director of Public Joint Stock Company "Avangard"

13. Kobzey M.A - Chief Power Engineer of Public Joint Stock Company "Avangard"

14. Kobzey M.A - Chief Engineer (part time) of Public Joint Stock Company “Avangard”

15. Polot V.B. - Chief Technologist of Public Joint Stock Company “Avangard”

16. Riznichuk O.I. - Ecologist of Public Joint Stock Company “Avangard”

17. Vivchar R.I. - Director of Private Joint Stock Company “Chernivetska Poultry farm”

18. Hudyur R.M. - Chief Engineer of Private Joint Stock Company “Chernivetska Poultry farm”

19. Yavorsky V.A. - Chief Power Engineer of Private Joint Stock Company “Chernivetska Poultry farm”

20. Kourik M.M. - Chief Technologist of Private Joint Stock Company “Chernivetska Poultry farm”

21. Tymofiev Yu.M. - Director of Public Joint Stock Company Agricultural Company “Avis”

22. Mosoryk O.S. - Chief Engineer of Public Joint Stock Company Agricultural Company “Avis”

23. Horash R.A. - Chief Power Engineer of Public Joint Stock Company Agricultural Company “Avis”

24. Guy A.I. - Chief Technologist of Public Joint Stock Company Agricultural Company “Avis”

25. Pukas V.I. - Chief mechanic of Public Joint Stock Company Agricultural Company “Avis”

26. Kotsan V.B. Acting Director of Agribusiness Farm LLC “Yuzhnaya-Holding”

27. Omelchenko E.A. - Chief Engineer of Agribusiness Farm LLC “Yuzhnaya-Holding”

28. Stepanishchev S.V. - Chief Power Engineer of Agribusiness Farm LLC “Yuzhnaya-Holding”

29. Sadyn V.V. - Chief Technologist of Agribusiness Farm LLC “Yuzhnaya-Holding”

30. Sereda V.I. - Director of Limited Liability Company “Areal-Snigurivka”

31. Salnikov O.Yu. - Chief Engineer of Limited Liability Company “Areal-Snigurivka”

32. Talimanchuk V.T. - Acting Chief Power Engineer of Limited Liability Company “Areal-Snigurivka”

33. Dzyubak O.V. - Head of Transport Department of Limited Liability Company “Areal-Snigurivka”

34. Chirkov A.O. - Director of Subsidiary “Poultry farm “Chornobayivske” of PJSC “Chornobayivske”

35. Biletsky V.M. - Chief Engineer of Subsidiary “Poultry farm “Chornobayivske” of PJSC “Chornobayivske”

36. Bondar F.I. - Chief Technologist of Subsidiary “Poultry farm “Chornobayivske” of PJSC “Chornobayivske”

37. Anysov V.V. – Head of energy service of Subsidiary “Poultry farm “Chornobayivske” of PJSC “Chornobayivske”

38. Voskolovich V.M. - CEO of LLC “Slov’yany”

39. Melnichenko V.G. - Chief Engineer of LLC “Slov’yany”

40. Onischuk V.M. - Technologist of LLC “Slov’yany”

41. Biryukov M.V. - Head of Transport Department of LLC “Slov’yany”

42. Chorniy V.D. - Director of Limited Liability Company “Makarivsk Birds”

43. Melnichenko O.O. - Chief engineer of Limited Liability Company “Makarivsk Birds”

44. Levchenko V.O. - Chief technologist of Limited Liability Company “Makarivsk Birds”

45. Lysenko O.O. - Chief Power Engineer of Limited Liability Company “Makarivsk Birds”

46. Illarionov T.I. - Director of Public Joint Stock Company “Kirovskiy”

47. Klymenjuk V.V. - Chief Engineer of Public Joint Stock Company “Kirovskiy”

48. Kremen O.V. - Chief Technologist of Public Joint Stock Company “Kirovskiy”

49. Novokhatskiy S.M. - Chief Power Engineer of Public Joint Stock Company “Kirovskiy”

50. Josan F.I. - HSE Engineer of Public Joint Stock Company “Kirovskiy”

51. Vasylieva N.V. - Environmental project manager of “Company “MT-Invest” LTD

APPENDIX A: DETERMINATION PROTOCOL
BUREAU VERITAS CERTIFICATION HOLDING SAS

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: "Implementation of energy efficiency measures in enterprises of "Agrarian Holding Avangard"	OK	OK
-	Is the sectoral scope to which the project pertains presented?	Sectoral scope: 3. Energy consumption. 13. Recycling and waste disposal.	OK	OK
-	Is the current version number of the document presented?	The current version number of the document is presented. See section A.1.	OK	OK
-	Is the date when the document was completed presented?	The date of completeness of the current version of the project design document is indicated in the PDD section A.1.	OK	OK
Description of the project				
-	Is the purpose of the project included with a	Situation before project implementation	CAR 01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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)?	Before the beginning of the project realization, most of poultry farms were working while using equipment manufactured in Soviet times, according to standards developed under the availability of cheap energy resources. It is characterized by limited effective power adjustment, low process automation, high heat losses or performance non-productive work. Since the time of its production, new technologies have raised in the market, the use of which allowed for achieving of significant energy savings, for instance light-emitting-diode (LED) lighting systems, more efficient transformers, and others. As for the waste management, the poultry farms should have to bury their production waste within the received limits of waste generation paying the prescribed fee. Waste from poultry slaughtering, egg shell and birds' mortality should have to be disposed at the special plants. Chicken manure placed in storage, where it is taken in solid (water content less than 50%), plastic (water content of 50-82%) or liquid (water content over 82%) consistency that depends on a technological process of a particular plant. Significant volume of manure accumulated in a storage led to arising of anaerobic conditions of fermentation, which resulted in generation of significant amount of methane, which is a greenhouse gas. Baseline scenario In the baseline scenario, facilities would have continued to work with the same specific power consumption, as well as before the project realization. In case of equipment failure, its replacement would have been carried out element-by-element to the equipment with similar technical specification that would have not led to the emergence of energy-saving		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		effect due to the lack of systematic approach and limited opportunities for optimizing of energy consumption. Chicken manure would have been mixed as it had been produced, with no additional operations aimed at its drying, addition of dry biomass and its subsequent composting. Project scenario In the project scenario a large-scale modernization of enterprises is taking place, along with replacing equipment that is selected based on its technical specifications in terms of power consumption and ability to optimize its performance under particular conditions at a facility. When choosing the equipment, such additional features as drying of manure at the stage of its collection in the floor house and its transportation by belt conveyor are also taken into account. Therefore, the derived manure is drier, but after the addition of dry biomass its water content gets to level as it gets while storing in solid substance. At the facilities where the amount of manure produced per day is small, the shift to the method of removing to the fields is occurring. While being distributed into small portions, the chicken manure decomposes quite quickly, when turning into valuable fertilizer, thus the high level of its aeration is ensured, due to which anaerobic fermentation and the appropriate allocation of methane is being significantly reduced. At the new facilities with great capacity, received manure in solid form is subjected to composting, during which a mixture of litter and manure from time to time is being stirred to ensure better access of oxygen. Microbiologic specimens may be added in order to accelerate decomposition of chicken manure to substances that can be easily assimilated by plants. The resulting product is ready for use as a fertilizer; it has no strong odor		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		and does not pollute groundwater with infiltrate. **CAR 01.** Please, try to fit information of A.2 into two pages.		
-	Is the history of the project (incl. its JI component) briefly summarized?	The history of the project (incl. its JI component) is briefly summarized.	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	Project participant and parties involved are listed in the Table in section A.3. of the PDD.	OK	OK
-	Is the data of the project participants presented in tabular format?	The data of the project participant 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. **CAR 02.** Please, adjust table format in Annex to the requirements of JI PDD form, version 01. **CAR 03.** Please, add information to the table 2 of Annex 1 and to Section A.3.	CAR 02 CAR 03	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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Region/State/Province etc.	This project is being implemented in Ukraine at 21 processing facilities and their units (total number of facilities − 30), which are the part of LLC "Agrarian Holding Avangard". The facilities are located in 14 regions of Ukraine.	OK	OK
-	City/Town/Community etc.	1.Donetsk Region. Volnovaska District, Rivnopil village; 2.Khmelnytsky Region, Kamenets District, Gumentsy village; 3.Kyiv Region, Makariv District, Makariv town; 4.Kharkiv Region, Kharkiv District, Khroly village; 5.Kharkiv Region, Kharkiv District, Sanjar village; 6.Luhansk Region., Perevalskiy District, Chervony Prapor town; 7.Dnipropetrovsk Region, Kryvyi Rih District, Lozuvatka village; 8.Ivano-Frankivsk Region., Tysmenytsya District, Zahvizdya village; 9.Kherson Region, Biloserskyi District, Chornobaivka village; 10.Kirovohrad Region, Kirovohrad District, Vilne village; 11.Cherkasy Region, Cherkaskyi District, Khutory village; 12.Mykolaiv Region, Snihurivskyi District, Snihurivka City; 13.Ivano-Frankivsk Region, Rohatynskyi District, Zaluzhzhya vaillage; 14.Donetsk Region, Donetsk, Kalininsk Disrict; 15.Donetsk Region, Volnovaskyi District, Rybynske village; 16.Chernivtsy Region, Glybotskyi District, Valya Kuzmyna village; 17.Autonomous Republic of Crimea, Chervonohvardiyskiy District, Kotelnykove village; 18.Autonomous Republic of Crimea, Simferopol District,	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Perove village; 19.Ivano-Frankivsk Region, Tysmenytskyi District, Zagvizdya village; 20Kherson Region, Bilozerskyi District, Chornobaivka village 21.Kyiv Region, Marariv District, Sadky-Stroivka village.		
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Detail of the physical location is provided in Table 2 of the PDD. **CAR 04.** Please, add geographical coordinates for better identification of the project.	CAR 04	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.4.2 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 emission reductions are to be achieved? (This section should not exceed one page)	GHG emissions reduction is achieved due to lower specific energy consumption for production process at “Agrarian Holding Avangard” and by avoiding anaerobic waste fermentation processes leading to methane emissions through changing the manure handling practice.	OK	OK
-	Is it provided the estimation of emission reductions over the crediting period?	The estimation of emission reductions over the crediting period is provided.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Is it provided the estimated annual reduction for the chosen credit period in tCO_2e?	The estimated annual reduction for the chosen credit period is provided in tCO_2e.	OK	OK
-	Are the data from questions above presented in tabular format?	The data from questions above are presented in tabular format. Refer to Tables in section A.4.3.1. **CAR 05.** Please, correct table numbering.	CAR 05	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	The length of crediting period is indicated in the PDD section A.4.3.1.	OK	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO_2 equivalent provided?	Total as well as annual and average annual emission reductions in tonnes of CO_2 equivalent are provided in accordance with the calculated values in the spreadsheet provided to the verifier. **CAR 06.** Please correct rounding in "Total estimated emission reductions over the crediting period (tonnes of CO2 equivalent)". **CAR 07.** Please correct rounding in Total estimated emission reductions for the relevant period (tonnes of CO2 equivalent).	CAR 06 CAR 07	OK OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	**CAR 08.** Letter of Approval by the Parties involved was not provided.	CAR 08	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	Host Party involved is the Ukraine.	OK	OK
19	Has the DFP of the host Party issued a written	According to the adopted procedure, the LoAs by Parties	Pending	Pending

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	project approval?	involved will be issued after the project determination.		
20	Are all the written project approvals by Parties involved unconditional?	According to the adopted procedure, the LoAs by Parties involved will be issued after the project determination.	Pending	Pending
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?	Party involved 1: Ukraine (host Party), legal entities are LLC "Agrarian Holding Avangard". Party involved 2: The Netherlands, legal entities are United Carbon Finance Ltd. See CAR 08.	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	The baseline scenario was chosen based on project-specific approach in accordance with paragraph 9(a) of the JISC Guidance on Criteria for Baseline Setting and Monitoring".	OK	OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	The theoretical description is provided in the PDD.	OK	OK
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible	The PDD provides justification that the baseline is established by listing and describing plausible future scenarios on the basis of conservative assumption and selecting the most plausible one.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?			
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	N/A	N/A	N/A
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	N/A	N/A	N/A
Approved CDM methodology approach only				
26 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
26 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A
26 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A
26 (c)	Are all explanations, descriptions and analyses pertaining to the baseline in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A
26 (d)	Is the baseline identified appropriately as a result?	N/A	N/A	N/A
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	The PDD section B.2 includes analysis of project additionality and is intended to demonstrate that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of GHG emissions in comparison to the baseline. The analysis is performed based on the latest version (version 04.0.0) of the Combined tool to identify the baseline scenario and demonstrate additionality approved by CDM Executive Council and accordingly may be fully applied to Joint Implementation Projects.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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".			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	See section 22 of this table.	OK	OK
29 (b)	Are additionality proofs provided?	The additionality of the project activity is demonstrated and assessed with using the "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 04.0.0). To demonstrate of additionality applied: - Identification of alternatives to the project activity consistent with current laws and regulations; - Investment analysis; - Barrier analysis; - Common practice analysis. The mentioned approach of JI leads to the conclusion that the project activity is additional. **CAR 09.** PDD has to demonstrate that providing a loan or other financial decisions were made taking into account CDM incentive. **CAR 10.** The data indicated in the table 8 is not a country risk premium, but reflects the size of cumulative risk premium, including risk premium for equity. Correct numbers	CAR 09 CAR 10 CL 01	OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		from your source should be indicated. **CL 01.** Please, explain in more detail, why financing could not be attracted for realization of this project by the enterprise itself.		
29 (c)	Is the additionality demonstrated appropriately as a result?	Yes, the additionality demonstrated appropriately as a result	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. See section B.2 of the PDD.	OK	OK
Approved CDM methodology approach only				
31 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A
31 (b)	Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the project?	N/A	N/A	N/A
31 (c)	Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology?	N/A	N/A	N/A
31 (d)	Are additionality proofs provided?	N/A	N/A	N/A
31 (e)	Is the additionality demonstrated appropriately as a result?	N/A	N/A	N/A
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	The project's spatial boundaries are defined in the PDD. See section B.3.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	participants? (ii) Reasonably attributable to the project? (iii) Significant?			
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	See section 32 (a) of this table.	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	The delineation of the project boundary and the gases and sources included described in the PDD by using figure.	OK	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	All gases and sources included are explicitly stated; refer to 32 (a) above. All exclusions made are appropriate as a conservative or logic assumption.	OK	OK
Approved CDM methodology approach only				
33	Is the project boundary defined in accordance with the approved CDM methodology?	N/A	N/A	N/A
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	The PDD 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 12/01/2006. **CAR 11.** Please, indicate project starting and ending dates in Section C.2.	CAR 11	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 13 years (156 months).	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
34 (c)	Does the PDD state the length of the crediting period in years and months?	PDD state the length of the crediting period in years and months.	OK	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	Yes. The starting date of the crediting period is after the date of the first emission reductions.	OK	OK
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?	Yes. According to the PDD the crediting period for issuance of ERUs does not extend beyond 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 estimated emission reductions are provided in the table of the PDD section A.4.3.1.	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 characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	The monitoring plan describes: - data to be monitored: annual methane conversion factor for uncovered anaerobic lagoons, annual methane conversion factor for solid storage, annual methane conversion factor for daily removal to the fields, annual methane conversion factor for composting, global warming	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		potential for methane, methane density, maximum potential of methane generation from manure, amount of volatile solids generated from manure, methane emission factor for collection, storage and use of chicken manure using uncovered anaerobic lagoons, methane emission factor for collection, storage and use of chicken manure for solid storage, methane emission factor for collection, storage and use of chicken manure for daily removal to the fields, methane emission factor for collection, storage and use of chicken manure for composting, electricity consumption by poultry farm, average number of birds permanently kept at poultry farm, indirect specific carbon dioxide emissions in the period of consumption of electricity by consumers which are classified as 2nd class; - the period in which they will be monitored: monthly; - all decisive factors for the control and reporting of project performance: statistics forms; 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 monitoring plan specifies variables used. It provides transparent picture of the emission reductions.	OK	OK
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from	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
	recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?			
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	The monitoring plan indicates how the values are to be selected and justified.	OK	OK
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	The monitoring plan indicate the precise references from which these values are taken. The conservativeness of the values is justified.	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	See section D of the PDD.	OK	OK
36 (b) (iv)	Are International System Unit (SI units) used?	SI units are used. Also there are data units used in accordance with the applied JI specific approach.	OK	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	See section B.1 of the PDD. **CL 02**. Clarify please electricity consumption class of given project.	CL 02	OK
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	The monitoring plan draws on the list of standard variables	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	contained in appendix B of "Guidance on criteria for baseline setting and monitoring".		
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	See the PDD section D.1. The data and parameters that are monitored throughout the crediting period are clearly indicated in the PDD (section D.1).	OK	OK
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	In the table of the PDD section D.1.1 the time of monitoring (frequency) and the source of data to be used are indicated for all the monitored parameters and data.	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?	All algorithms and formulae used for the estimation of baseline and project emissions are indicated and explained in the PDD.	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the algorithms/formulae is explained.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	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
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the algorithms/procedure is indicated in the PDD.	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level of data is indicated in the table of Quality control and quality assurance (QA) procedures undertaken for the data monitored (see section D.2 of the PDD).	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?	The formulae used in the PDD are sufficiently described.	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Relevant national and/or sectoral policies and circumstances are taken into account in the project.	OK	OK
36 (f) (vii)	Are references provided as necessary?	**CL 03.** Please clarify the annual methane conversion factor and methane density. In reference 14 they are absent.	CL 03	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	All key assumptions are explained in a transparent manner if needed.	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such	See section 36 (f) (v) of this table.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	uncertainty is to be addressed?			
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?	See section 36 (f) (v) of this table.	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?	Relevant national and/or sectoral policies and circumstances are taken into account while developing the monitoring plan for this project.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	See section D of the PDD.	OK	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	Uncertainty level of data is indicated in the table of Quality control and quality assurance (QA) procedures undertaken for the data monitored. Information on calibration procedures were checked during site-visit and found satisfactory. **CAR 12.** Please, add to PDD more detailed information about monitoring equipment.	CAR 12	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	The owner of the project, which will implement the provisions of the monitoring plan into the structure of organization and quality management, is LLC “Agrarian Holding Avangard”. The poultry farm management headed by its Director will be responsible for performance monitoring, data collection,	CAR 13	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		registration, visualization, archiving of monitoring data, and periodic inspection of measuring instruments. A responsible person from the Company "Agrarian Holding Avangard" will control this process. **CAR 13.** Please, add more detailed information about responsible people to Section D.4.		
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?	Monitoring techniques are in line with current operation routines at the enterprise.	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?	Yes. See section D of PDD	OK	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	Data monitored and required for emission reductions calculation and verification, according to paragraph 37 of the JI guidelines, are to be kept for two years after the last transfer of ERUs for the project.	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	See section D of the PDD.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	supplementary developed by the project participants in line with 36 above?			
Approved CDM methodology approach only				
38 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	N/A	N/A	N/A
38 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	N/A	N/A	N/A
38 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	N/A	N/A	N/A
38 (c)	Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology?	N/A	N/A	N/A
38 (d)	Is the monitoring plan established appropriately as a result?	N/A	N/A	N/A
Applicable to both JI specific approach and approved CDM methodology approach				
39	If the monitoring plan indicates overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined project components, justify its need and state how the conditions mentioned in (a)-(c) are met?			
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?	No leakages are expected.	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	See the section 40 (a) of this table.	OK	OK
Approved CDM methodology approach only				
41	Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology?	N/A	N/A	N/A
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	Assessment of emissions in the baseline scenario and in the project scenario is chosen.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(b) Direct assessment of emission reductions			
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?	PDD provides ex ante estimates of: (a) Emissions for the project scenario (Section E.1); (b) No leakages are expected; (c) Emissions for the baseline scenario (Section E.4); (d) Emission reductions adjusted by leakage (Section E). **CAR 14.** Please correct rounding of "Project emissions due to electricity consumption" and "Project emissions due to anaerobic fermentation of manure" and Total project emissions during the first crediting period in Table 8. **CAR 15.** Please correct rounding of "Project emissions due to electricity consumption" and "Project emissions due to anaerobic fermentation of manure" and Total project emissions during the first crediting period in Table 14. **CAR 16.** Please correct rounding of "Emission reductions during the first crediting period" and "Total emission reductions after the first crediting period" in Table 16. **CAR 17.** Please correct rounding of "Estimated project emissions (tonnes of CO_2 equivalent)". **CAR 18.** Please correct rounding "Total (tonnes of CO_2 equivalent)" in Table 19.	CAR 14 CAR 15 CAR 16 CAR 17 CAR 18	OK OK OK 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)?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(b) Leakage, as applicable? (c) Emission reductions or enhancements 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 tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully	(a) Estimates in 43 are given on the periodic basis, from the beginning until the end of the crediting period, in tones of CO_2 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 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.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Illustrative ex-ante estimation of emission reduction is made on the excel spreadsheet. **CAR 19.** Please add name of project and monitoring period in calculation file for more precise identification. **CAR 20.** Please correct the rounding of "Total estimated emission reduction for crediting period (tonnes of CO2 equivalent)"in Excel file on sheet PDD tables 1. **CAR 21.** Please correct the rounding of "Total estimated emission reduction for the relevant period (tonnes of CO2 equivalent)" in Excel file on sheet PDD tables 1. **CAR 22.** Please correct rounding of "Total" in Excel file on sheet PDD tables 2.	CAR 19 CAR 20 CAR 21 CAR 22	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Approved CDM methodology approach only				
47 (a)	Is the estimation of emission reductions or enhancements of net removals made in accordance with the approved CDM methodology?	N/A	N/A	N/A
47 (b)	Is the estimation of emission reductions or enhancements of net removals presented in the PDD: − On a periodic basis? − At least from the beginning until the end of the crediting period? − On a source-by-source/sink-by-sink basis? − For each GHG? − In tones of CO_2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? − Are the formula used for calculating the estimates consistent throughout the PDD? − Are the estimates consistent throughout the PDD? − Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	Yes. For more detailed information, please, see section F.1 of the PDD.	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	The full scope EIA in accordance with the Ukrainian legislation has been conducted for each of the poultry farms attributed to the proposed project. In general, the environmental impact of the project activity implementation is positive. Reducing of electricity consumption has an indirect positive impact on the environment through reduction of greenhouse gases and other products of fuel combustion at thermal power plants. Changing the methods of waste management reduces pollution of groundwater with products of chicken manure decomposition during its storage in lagoons and in excavated storage pits that also significantly effects on the conditions for the growth of pathogenic flora that may also spread through groundwater. In addition, less amount of manure anaerobic fermentation products release into the atmosphere, not only methane that in toxicology is classified as industrial poisons, but also ammonia, hydrogen sulfide and carbon monoxide. The applied methods of poultry manure composting can be used as fertilizers, a valuable recovery of soil fertility. Implementation of the project activity also has a positive social impact through removing of the concentrated odor of chicken manure storage facilities and improving working	CAR 23 CAR 24 CAR 25 CL 04	OK OK OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		conditions at poultry farms. Since most of the farms are located in rural areas, where the use of well water is widespread, the reduction of groundwater pollution has positive effects on health of locals. No transboundary effects are not identified. Impacts that occur in any other country, and caused by the implementation of this project physically located entirely within Ukraine, were not identified. **CAR 23.** Please, add to PDD more detailed information about environmental statistical reporting of the enterprises. **CAR 24.** Please, correct the reference to "Instruction on procedure of calculation and payment for environmental pollution tax # 162 approved by the Ministry of Environmental Protection and Nuclear Safety of Ukraine and State Tax Administration of Ukraine dated 19/07/99"which currently became invalid. **CAR 25.** Please correct ecological tax for manure: it is 1,25UAH instead of 125 UAH. Please, see reference 8. **CL 04.** Please clarify the term "full-scale EIA".		
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 public was informed on plans to build new facilities and departments of the farm, and their substantial reconstruction, by posting information on the company website and though carrying out press conferences about the plans of "Avangard", following which the publications were prepared to be available for public both in print and online. Informing of	CL 05	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?	stakeholders was conducted as a part of mandatory publication of Statement on impact in the local media in accordance with the procedure of preparation and examination of the EIA approved by the State Construction Standard DBN A.2.2.-1-2003. **CL 05.** Please, provide information about support to the project by central and regional authorities.		
Determination regarding small-scale projects (additional elements for assessment)_Paragraphs 50 - 57_Not applicable				
Determination regarding land use, land-use change and forestry projects _Paragraphs 58 – 64(d)_Not applicable				
Determination regarding programmes of activities_Paragraphs 66 – 73_Not applicable				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01. Please, try to fit information of A.2 into two pages.	-	Section A.2 was fitted into two pages. Please, see the updated version of PDD 2.0	Due to the amendments made in the PDD, CAR 01 is closed.
CAR 02. Please, adjust table format in Annex to the requirements of JI PDD form, version 01.	-	In PDD version 2.0 table format of the table in the Annex 1 was adjusted to requirements of JI PDD form, version 01.	The PDD has been corrected. CAR 02 is closed.
CAR 03. Please, add information to the table 2 of Annex 1 and to Section A.3.	-	The required changes were made to PDD version 2.0.	Necessary corrections have been made. The issue is closed.
CAR 04. Please, add geographical coordinates for better identification of the project.	-	Geographical coordinates were added. Please, see the updated version of PDD 2.0.	Necessary corrections have been made. The issue is closed.
CAR 05. Please, correct table numbering.	-	Table numbering was corrected in PDD version 2.0	The PDD has been corrected. CAR 05 is closed.

CAR 06. Please correct rounding in "Total estimated emission reductions over the crediting period (tonnes of CO2 equivalent)".	-	Rounding was corrected Please, see the updated version of PDD 2.0	The PDD has been corrected. CAR 06 is closed.
CAR 07. Please correct rounding in Total estimated emission reductions for the relevant period (tonnes of CO2 equivalent).	-	Rounding was corrected Please, see the updated version of PDD 2.0.	Necessary corrections have been made. The issue is closed.
CAR 08. Letter of Approval by the Parties involved was not provided.	19	Positive determination opinion is requisite for LoA application. LoA will be provided immediately upon its receipt. Written project approval by the other Party, which participates in JI project except the Host Party, will be received by the time of the first verification . Please see updated version of PDD 2.0.	Pending.

CAR 09. PDD has to demonstrate that providing a loan or other financial decisions were made taking into account CDM incentive.	29 (b)	The following text was added into PDD version 2.0: possibilities of attracting additional funds by selling emission reduction units due to realization of the project under Kyoto Protocol were taken into account in the time of decision making about the project. All supporting documents were provided to AIE.	Necessary corrections have been made, CAR 09 is closed.
CAR 10. The data indicated in the table 8 is not a country risk premium, but reflects the size of cumulative risk premium, including risk premium for equity. Correct numbers from your source should be indicated.	29 (b)	Table 8 was changed accordingly (its number was changed to 5). Please, see the updated version of PDD 2.0.	Necessary corrections have been made, CAR 10 is closed.

CL 01. Please, explain in more detail, why financing could not be attracted for realization of this project by the enterprise itself.	29 (b)	The Enterprises, involved in the project activity, were not able to attract more financing due to their bad economic situation under conditions of economic crisis of Ukrainian sugar industry. In order to get bank loan the positive credit history, evidences of stable profitable operation are required, which was not feasible at the time of decision making about the project.	Based on the explanation received, CL 01 is closed.
CAR 11. Please, indicate project starting and ending dates in Section C.2.	34 (a)	Project starting and ending dates were added to Section C.2. Please, see the updated version of PDD 2.0.	The PDD has been corrected. CAR 11 is closed.
CL 02. Clarify please electricity consumption class of given project.	36 (b) (v)	All enterprises which are involved in the project activity are consumers of second class electricity. All necessary documents were provided to AIE.	Based on the documentation received, CL 02 is closed.

CL 03. Please clarify the annual methane conversion factor and methane density. In reference 14 they are absent.	36 (f) (vii)	In the reference 14, pages of document in its English version were provided. References on pages were corrected in updated version of PDD, version 2.0. Methane density is in description of formula 10.23. (transformation coefficient of m^3 CH_4 into tonne of CH_4).	The PDD has been corrected. CL 03 is closed.
CAR 12. Please, add to PDD more detailed information about monitoring equipment.	36 (i)	More detailed information about monitoring equipment was added to PDD version 2.0.	The PDD has been corrected. CAR 12 is closed.
CAR 13. Please, add more detailed information about responsible people to Section D.4.	36 (j)	More detailed information about responsible people was added to Section D.4 Please, see the updated version of PDD 2.0.	Necessary corrections have been made, CAR 13 is closed.

CAR 14. Please correct rounding of "Project emissions due to electricity consumption" and "Project emissions due to anaerobic fermentation of manure" and Total project emissions during the first crediting period. Table 8.	43	The rounding was corrected. Please, see the updated version of PDD 2.0.	Necessary corrections have been made, CAR 14 is closed.
CAR 15. Please correct rounding of "Project emissions due to electricity consumption" and "Project emissions due to anaerobic fermentation of manure" and Total project emissions during the first crediting period. Table 14.	43	The rounding was corrected. Please, see the updated version of PDD 2.0.	The PDD has been corrected. CAR 15 is closed.
CAR 16. Please correct rounding of "Emission reductions during the first crediting period" and "Total emission reductions after the first crediting period". Table 16.	43	The rounding was corrected. Please, see the updated version of PDD 2.0.	The PDD has been corrected. CAR 16 is closed.
CAR 17. Please correct rounding of "Estimated project emissions (tonnes of CO2 equivalent)".	43	The rounding was corrected. Please, see the updated version of PDD 2.0.	Necessary corrections have been made, CAR 17 is closed.

CAR 18. Please correct rounding "Total (tonnes of CO2 equivalent)" in Table 19.	43	The rounding was corrected. Please, see the updated version of PDD 2.0.	Necessary corrections have been made, CAR 18 is closed.
CAR 19. Please add name of project and monitoring period in calculation file for more precise identification.	46	Name of project was added into the calculation file. Please, see the updated version of calculation 3.0.	Necessary corrections have been made. CAR 19 is closed.
CAR 20. Please correct the rounding of "Total estimated emission reduction for crediting period (tonnes of CO2 equivalent)"in Excel file on sheet PDD tables 1.	46	The rounding was corrected Please, see the updated version of calculation 3.0.	Necessary corrections have been made. CAR 20 is closed.
CAR 21. Please correct the rounding of "Total estimated emission reduction for the relevant period (tonnes of CO2 equivalent)" in Excel file on sheet PDD tables 1.	46	The rounding was corrected Please, see the updated version of calculation 3.0.	Necessary corrections have been made. CAR 21 is closed.
CAR 22. Please correct rounding of "Total" in Excel file on sheet PDD tables 2.	46	The rounding was corrected Please, see the updated version of calculation 3.0.	Necessary corrections have been made. CAR 22 is closed.

CAR 23. Please, add to PDD more detailed information about environmental statistical reporting of the enterprises.	48 (b)	Statistical reporting on environmental impacts of the enterprises is performed by filling in the following statistical forms: # 2 tp-air “Report on atmospheric air protection”; # 1-waste “Waste treatment”; # 2-TP (vodgosp) "Report on the use of water". This information was added to SectionF2. Please, see the updated version of PDD 2.0.	The PDD has been corrected. CAR 23 is closed.

CAR 24. Please, correct the reference to "Instruction on procedure of calculation and payment for environmental pollution tax # 162 approved by the Ministry of Environmental Protection and Nuclear Safety of Ukraine and State Tax Administration of Ukraine dated 19/07/99"which currently became invalid.	48 (b)	Because of the fact that at the time of decision making about the project this Instruction was in force, its referencing is valid and therefore was not corrected. Instead it was made more accurate in the following way: "In accordance with Instruction on procedure of calculation and payment for environmental pollution tax # 162 approved by the Ministry of Environmental Protection and Nuclear Safety of Ukraine and State Tax Administration of Ukraine dated 19/07/99 with changes and amendments adopted by the Order of Ministry of Environmental Protection and Nuclear Safety of Ukraine # 24/37 dated 27/01/2000, which was in force at the time of decision making about project implementation, in case of overlimiting waste disposal the fine is paid a five times the amount of the fee for waste disposal".	Based on the explanation received, CAR 24 is closed.

CAR 25. Please correct ecological tax for manure: it is 1,25UAH instead of 125 UAH. Please, see reference 8.	48 (b)	The value of ecological tax for poultry manure was corrected. Please, see the updated version of PDD 2.0.	The PDD has been corrected. CAR 25 is closed.
CL 04. Please clarify the term “full-scale EIA”.	48 (b)	The term “full-scale EIA” means that EIA was developed according Chapter 2 of State building norms DBN 2.2.-1-2003: “Composition and content of environment impact assessment (EIA) during planning and construction of buildings”, State Ukraine committee of building and architecture, 2004 year. If category of activity belongs to the list provided in Annex E of the mentioned above DBN, EIA can be developed in shortened volume according to article 1.7 of the mentioned above DBN.	Based on the explanation received, CL 04 is closed.

CL 05. Please, provide information about support to the project by central and regional authorities.	49	The project is related to internal production processes, changing which resulted in the reduction of negative impact on environment of the enterprises involved in the project activity. This happened by cutting the quantity of waste directed to landfills. There was no special need to get approval from regional or central authority bodies during realization of the project. Since the environmental impact of the project realization is totally positive, there are no reasons for negative attitude to the project by regional or central authority bodies.	Based on the explanation received, CL 05 is closed.