# DETERMINATION REPORT
# CEP CARBON EMISSIONS PARTNERS S.A.

## DETERMINATION OF THE
## Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry

REPORT NO. UKRAINE-DET/0525/2012

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# DETERMINATION REPORT

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**Summary:**

Bureau Veritas Certification has made the determination of the "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" project of CEP CARBON EMISSIONS PARTNERS S.A. located in Yasynuvatskyi, Dobropilskyi, Kostiantynivskyi and Krasnoarmiiskyi districts of Donetsk region, Ukraine on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

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

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

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


| Report No.: | Subject Group: |
|---|---|
| URKAINE-det/0525/2012 | JI |

**Project title:**
Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry

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# 1 INTRODUCTION

CEP CARBON EMISSIONS PARTNERS S.A. has commissioned Bureau Veritas Certification to determine its JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" (hereafter called "the project") in Yasynuvatskyi, Dobropilskyi, Kostiantynivskyi and Krasnoarmiiskyi districts of Donetsk region, Ukraine.

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

## 1.1 Objective

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

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

## 1.2 Scope

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

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

## 1.3 Determination team

The determination team consists of the following personnel:

Kateryna Zinevych

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Yuliia Pylnova
Bureau Veritas Certification Team Member, Climate Change Lead Verifier

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 CEP CARBON EMISSIONS PARTNERS S.A. 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, 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, CEP CARBON EMISSIONS PARTNERS S.A. revised the PDD version 01 dated March 30, 2012 and resubmitted it on May 23, 2012 and June 7, 2012 as versions 02 and 03 respectively.

The determination findings presented in this report relate to the project as described in the PDD versions 01, 02 and 03.

## 2.2 Follow-up Interviews

On 06/06/2012 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 "Beta-Agro-Invest" and CEP CARBON EMISSIONS PARTNERS S.A. were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

| Interviewed organization | Interview topics |
|---|---|
| LLC "Beta-Agro-Invest" | ➢ Project History<br>➢ Project approach<br>➢ Project boundary<br>➢ Schedule of implementation<br>➢ Organizational Structure<br>➢ Responsibilities and obligations<br>➢ Training<br>➢ Quality control procedures and technologies<br>➢ Modernization / installation of equipment (records)<br>➢ Control over metering equipment<br>➢ The system of keeping records of measurements, the database<br>➢ Technical Documentation<br>➢ Monitoring Plan and procedures<br>➢ Permits and licenses<br>➢ Environmental Impact Assessment<br>➢ Answers of stakeholders |
| CEP CARBON EMISSIONS PARTNERS S.A. . | ➢ Baseline methodology<br>➢ Monitoring Plan<br>➢ Additionality proofs<br>➢ The calculations of emission reductions<br>➢ Project design<br>➢ Legal issues relating to the project<br>➢ Environmental Impacts<br>➢ Approval of the host party |

## 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.

Corrective Action Request (CAR) is issued, where:

(a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;

(b) The JI requirements have not been met;

(c) There is a risk that emission reductions cannot be monitored or calculated.

The determination team may also issue Clarification Request (CL), if information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

The determination team may also issue Forward Action Request (FAR), informing the project participants of an issue that needs to be reviewed during the verification.

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

# 3 PROJECT DESCRIPTION

The purpose of the Joint Implementation (JI) Project is to reduce anthropogenic greenhouse gas (GHG) emissions resulting from agricultural activities by changing the agricultural land management system, namely replacement of traditional soil tillage in agriculture with No-till technology.
Emissions are reduced due to lower carbon dioxide emissions from farmland by reducing (almost zero) topsoil disturbance by tillage in the course of crops growing.

LLC "Beta-Agro-Invest" (the Farm) was established in 2000. The company is engaged in agricultural activity in the eastern part of Ukraine.

The company's primary activity is growing, processing, storage and sale of agricultural products. In adddition, the company is engaged in diary cattle breeding, focusing on milk sales, and also provides grain and grain legume harvesting services.

Prior to the project, LLC "Beta-Agro-Invest" used traditional land cultivation system. This system involves tillage that provides for turning

over of topsoil to create homogeneous and mellow seedbed. The basic operation causing $CO_2$ emissions is ploughing during which crop residues are buried in the soil and weeds are removed.

In 2007, the Farm started to grow crops applying No-till technology (also referred to as "direct sowing technology") (see Table 1). This technology differs from the traditional technology because it provides for fewer technological procedures, which prevents the topsoil from a major disturbance, and it also differs with the way to utilize plant residues. The number of technological procedures of plant growing and harvesting is almost the same in the two technologies. The main difference is that the traditional technology provides for the processes of fertilizer application, land ploughing, cultivation, furrowing and seeding (multiple passage of the machinery in the field) direct sowing provides for simultaneous fertilizer application and sowing (single passage of the machinery). The lower number of technological procedures in No-till provides for up to 60% lower fuel consumption in internal combustion engines of tractors and other agricultural machinery.
In general the project activities are aimed at:

- reduction of emissions due to lower carbon dioxide emissions from farmland achieved by reducing (almost zero) topsoil disturbance by tillage in the course of technological procedures of soil cultivation.

The project also provides for lower carbon dioxide emissions due to a decrease of diesel fuel combustion by tractors and agricultural machinery. These emission reductions are not included into the project boundary under the conservative principle.

Direct sowing technology proposed under the JI project has several important technological aspects, namely:

- covering of the ground surface with farm crop residues;
- optimal use of crop rotation and agro-technological terms of all technological procedures (from sowing to harvesting) adapted to regional climatic conditions;
- direct sowing of agricultural crops into the soil (without any preliminary tillage of the soil), that involves attachment of the complex of organic and mineral fertilizers;
- soil spraying with herbicides to eliminate weeds.

22/02/2005 - Contract between LLC "Beta-Agro-Invest" and FIRMA P.H.P. Agro-Efect S.P. Z.O.O. for the purchase of agricultural equipment

01/05/2005 – starting date of the project design document development for the JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry"

28/04/2011 – Preparation and submission of the project idea note to support anthropogenic GHG emission reductions to the State Environmental Investment Agency of Ukraine.

07/06/2012 – the State Environmental Investment Agency of Ukraine issued a Letter of Endorsement No.1462/23/7 for the Joint Implementation project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry".

# 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, Corrective and Forward 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 36 Corrective Action Requests and 8 Clarification Requests.

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

## 4.1 Project approvals by Parties involved (19-20)

The project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" has already obtained endorsement from the government of Ukraine, namely a Letter of Endorsement No.1462/23/7 issued by the State Environmental Investment Agency of Ukraine dated 07/06/2012.
Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.
Upon completion of the Determination Report the project design document will be submitted to the State Environmental Investment Agency of Ukraine for receiving a Letter of Approval.

As the project has no approval by the Parties involved, CAR 36 remains pending and will be closed after report finalizing (see Appendix A).

The identified areas of concern as to the project approvals by the Parties involved, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 36).

## 4.2 Authorization of project participants by Parties involved (21)

The participation for each of the legal entities listed as project participants in the PDD will be authorized by the Parties involved, through the written Letters of Approval (from the government of country participant and from Ukraine as the host party). Refer to Section 4.1 of this report.

## 4.3 Baseline setting (22-26)

The PDD explicitly indicates that using a methodology for baseline setting and monitoring developed in accordance with the requirements of Appendix B of the JI Guidelines (hereinafter referred to as "specific approach") was the selected approach for setting the baseline (in accordance with paragraph 11 of the Guidance on criteria for baseline setting and monitoring (Version 03)).

In order to set the baseline the specific approach was used since there aren't any approved baseline and monitoring methodologies for such project activities at the moment.

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:
    a. Continuation of the current situation, without the JI project implementation.
    b. Proposed project activity without the use of the JI mechanism.
    c. Partial project activities (some of the project activities are implemented) without the use of the Joint Implementation Mechanism.

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, agricultural sector expansion plans, and the economic

situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

a. Agriculture is one of the leading industries in Ukraine; Agriculture in general and agro-industrial complex (AIC) in particular are a political factor of sovereignty. Ukraine is deemed to be one of the most agrarian states of the world; its foreign trade turnover of agricultural products amounted to USD 19.8 billion in 2011. On January 12, 2012 National Scientific Centre "Institute of Agricultural Policy" under the direction of the National Academy of Agricultural Sciences of Ukraine developed "Strategic guidelines for the development of agriculture of Ukraine till 2020". According to this strategy further development of the industry requires major transformation, one of which is the implementation of No-till technologies. These technologies are capable of ensuring the competitiveness of agricultural production and food security and they consist in decrease of production costs through the introduction of environmental, energy and resource saving technologies.

b. In the framework of the existing market model for the growing of AIC products, the effective competition among the producers can't be achieved; this market model can't also provide for the competitive pricing, which would stimulate the producers to improve efficiency and increase investment in the sector. Existing market mechanisms and targeted administrative measures don't provide for the necessary modernization and upgrading of the existing AIC product growing systems. The situation is becoming particularly critical given the growth of the need for food products both at the national level and worldwide; the lack of these products represents a threat to safe development of global economy and people in general.

c. Existing prices for AIC product growing are regulated by the state and do not include depreciation and investment needs of producers. This situation leads to a constant shortage of funds and the inability of timely capital repair of equipment, ensuring equipment operation, investment in modernization and development of the infrastructure.

d. The current Ukrainian system of formation of prices for AIC products does not include an investment component for the development of agriculture. According to the Law "On Agriculture" LLC "Beta-Agro-Invest" is not obliged and it is unmotivated to carry out modernization of its own production facilities. In addition, state investment programs

in most cases are targeted at administrative and organizational implementations.

e. State support in the agricultural sector is provided in amounts of funds provided by the law of Ukraine on State Budget of Ukraine for the relevant year.

f. The project scenario requires attracting significant additional funds. Such investment is characterized by a significant payback period and high investment risks, that is why it is not attractive for investors.

g. Ukraine has no experience in implementing similar JI projects in agricultural sector. The project implementation by means of selling emission reduction units will give Ukraine an opportunity to gain a useful experience in the use of direct sowing technologies.

The PDD provides a detailed description in a complete and transparent manner, as well as justification, that the baseline was duly set.

The methods of calculation used to determine the expected and actual baseline emissions, are sufficiently described in sections E and D of the PDD, respectively.
The identified areas of concern as to the baseline setting, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 15 – CAR 21).

## 4.4 Additionality (27-31)

The most recent version of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board was used in accordance with the JI specific approach, defined pursuant to paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring", version 03. All explanations, descriptions and analyses are made in accordance with the selected tool or method.

The PDD provides a justification of the applicability of the approach with a clear and transparent description, as per item 4.3 above.

The developer of the project proved that anthropogenic emissions under the project are lower than the emissions that would take place in the absence of the project activity.
Additionality proofs are provided.

Three plausible and realistic alternative scenarios of the project were identified:

- Alternative 1.1: Continuation of the current situation, without the JI project implementation.
- Alternative 1.2: Proposed project activity without the use of the JI mechanism.
- Alternative 1.3: Partial project activities (some of the project activities are implemented) without the use of the Joint Implementation Mechanism.

and the mandatory compliance of the scenarios with the legislation and legal acts was demonstrated.
According to the "Tool for the demonstration and assessment of additionality" (Version 06.0.0) investment analysis and common practice analysis were used in the PDD to justify additionality of the project.
Thus, the overall conclusion is that the project activity meets the criteria of additionality, is not a baseline scenario and is additional.
Additionality is demonstrated appropriately as a result of the analysis using the approach chosen.
The identified areas of concern as to the additionality, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 22 – CAR 26).

## 4.5 Project boundary (32-33)

The project boundary, which is defined in the PDD and in accordance with the specific approach, delineated by the physical, geographical location of farmlands with the total area of 20 311.15 ha where LLC "Beta-Agro-Invest" grows crop products, as well as tractors, harvesters and other agricultural machinery which consume diesel fuel in the process of crop growing, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

(i) Under the control of the project participants such as:
- $CO_2$ emissions due to tillage that involves ploughing in the process of crop growing.

(ii) Reasonably attributable to the project such as:

Such $CO_2$ emissions are absent;

(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 contract between LLC "Beta-Agro-Invest" and FIRMA P.H.P. Agro-Efect S.P. Z.O.O. for the purchase of agricultural equipment was signed, and the starting date is 22/02/2005, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 20 years or 240 months – from January 1, 2007 to December 31, 2026.

The PDD states the length of the crediting period in years and months, which is 20 years or 240 months, and its starting date of the crediting period is 01/01/2007, which is the date the first emission reductions are expected to be generated by the project.

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

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

The identified areas of concern as to the crediting period, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 27, CAR 28).

## 4.7 Monitoring plan (35-39)

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

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as reporting forms, the operating structure and management structure of the enterprise, that will be applied when implementing the monitoring plan.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. be clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions to be monitored such as: humus (soil organic carbon) content in the soil of field cultivated using direct sowing technology, area of field cultivated using direct sowing technology.

According to the Guidelines for users of the JI PDD form, revision # 04, the described approach to monitoring clearly states:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once, and that are available already at the stage of PDD development:

$k_{b,i,y}$ Humus content in the soil of field *i* cultivated using traditional tillage, in period *y*, %

$\rho_i$ Soil density at field *i* cultivated using traditional tillage prior to the project, in period *y*, t/m$^3$

$h_{b,i}$ Depth of soil layer disturbance at field *i* cultivated using traditional tillage, m

(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once, but that are not already available at the stage of PDD development: none.

(iii) Data and parameters that are monitored throughout the crediting period, such as:

$S_{p,i}$ Area of field *i* cultivated using No-till technology, ha

$k_{p,i,y}$ Humus content in soil of field *i* cultivated using No-till technology, in period *y*, %

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording, such as data archiving in hard copy and electronic form.

The most objective and cumulative factor that provides a clear picture of whether the emission reductions took place is the fact of GHG emission reductions by reducing (almost to zero) topsoil disturbance in the process of technological procedures of soil cultivation and, as a result, higher carbon sequestration (storage) in the soil by plants that take carbon from the atmosphere and transfer it into the soil (with further fixation in the soil) in the course of their biological activity.

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

**Formulae used to estimate project emissions (for each gas, source etc.; emissions in units of $CO_2$ equivalent):**

GHG emissions in the project scenario are absent.

$$PE_y = 0 \quad (1)$$

where
$PE_y$ – project GHG emissions in period *y*, t $CO_2$eq;
*[y]* – index corresponding to monitoring period.

**Formulae used to estimate baseline emissions (for each gas, source etc.; emissions in units of $CO_2$ equivalent):**

GHG emissions in the baseline scenario in the period *y* are calculated according to the following formula**:**

$$BE_y = BE_{A,y} \quad (2)$$

where

$BE_y$ – baseline GHG emissions in period *y*, t $CO_2$eq;
$BE_{A,y}$ – baseline GHG emissions due to the use of baseline land cultivation technology, which involves tillage, in period *y*, t $CO_2$eq;
*[y]* – index corresponding to monitoring period system;
*[A]* – index corresponding to system of baseline land cultivation technology.

Baseline emissions due to application of baseline land cultivation technology can be calculated as follows:

$$BE_{A,y} = \sum BE_{A,i,y} \quad (3)$$

where
$BE_{A,y}$ – baseline GHG emissions due to the use of baseline land cultivation technology, in period *y*, t $CO_2$eq;
$BE_{A,i,y}$ – baseline GHG emissions due to baseline land cultivation technology, in period *y*, t $CO_2$eq;
*[y]* – index corresponding to monitoring period system;
*[A]* – index corresponding to system of baseline land cultivation technology;
*[i]* – index corresponding to system of number of fields.

Baseline GHG emissions due to the use of baseline land cultivation technology, which involves tillage, for field *i* are calculated by using the formula, according to the "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Version 01.1.0):

$$BE_{A,i,y} = 0{,}9 \times S_{p,i} \times (SOC_{p,y,i} - SOC_{b,y,i}) \times \frac{44}{12}, \quad (4)$$

where

$BE_{A,i,y}$ – baseline GHG emissions due to the use of baseline land cultivation technology, in period y, t $CO_2$eq;

$S_{p,i}$ – area of field *i*, cultivated by using No-till technology, ha;

$SOC_{p,y,i}$ – soil organic carbon content in the soil of field *i* when No-till technology is applied in period *y*, t C/ha;

$SOC_{b,y,i}$ – soil organic carbon content in the soil of field *i* cultivated using traditional tillage in period *y*, t C/ha;

44/12 – $CO_2$ to C molecular masses ratio;

0.9 – factor that takes account of 10% of emissions from the project activity, which includes creation of anti-fire furrows and minimal topsoil disturbance when No-till technology is implemented;

*[y]* – index corresponding to monitoring period system;

*[b]* – index corresponding to system of baseline technology;

*[p]* – index corresponding to system of project technology;

*[A]* – index corresponding to system of baseline land cultivation technology;

*[fs]* – index corresponding to system of anti-fire furrows;

*[i]* – index corresponding to system of number of fields.

Soil organic carbon content in the soil of field *i* cultivated by using No-till technology is calculated by the following formula:

$$SOC_{p,y,i} = h_{b,i} \times \rho_i \times k_{p,i,y} \div 1.724 \times 10000 \div 100\% \quad (5)$$

where

$SOC_{p,y,i}$ – soil organic carbon content in the soil of field *i* when No-till technology is applied in period *y*, t C/ha;

$h_{b,i}$ – depth of soil disturbance in field *i* cultivated by using traditional tillage, m;

$\rho_i$ – soil density in field i, cultivated by using traditional tillage prior to the project, t/$m^3$;

$k_{p,i,y}$ –humus content in the soil of field *i* cultivated by using No-till technology in period *y*, %;

1,724 – organic carbon to humus conversion coefficient (according to GOST 23740)

10000 – $m^2$ to ha conversion coefficient;

*[y]* – index corresponding to monitoring period system;
*[b]* – index corresponding to system of baseline technology;
*[p]* – index corresponding to system of project technology;
*[i]* – index corresponding to system of number of fields.

Soil organic carbon content in the soil of field *i* cultivated by using traditional tillage is calculated as follows:

$$SOC_{b,y,i} = h_{b,i} \times \rho_i \times k_{b,i,y} \div 1{,}724 \times 10000 \div 100\%, \quad (6)$$

where
$SOC_{b,y,i}$ – soil organic carbon content in the soil of field *i* cultivated by using traditional tillage in period *y*, t C/ha;
$h_{b,i}$ – depth of soil disturbance of field *i* cultivated by using traditional tillage, m;
$\rho_i$ – soil density in field *i*, cultivated by using traditional tillage, in period *y*, $t/m^3$;
$k_{b,i,y}$ – humus content in the soil of field *i* cultivated by using traditional tillage in period *y*, %;
1,724 – organic carbon to humus conversion coefficient (according to GOST 23740)
10000 – $m^2$ to ha conversion coefficient;
*[b]* – index corresponding to system of baseline technology;
*[y]* – index corresponding to monitoring period system;
*[i]* – index corresponding to system of number of fields.

The content of humus in the baseline scenario is calculated by using historical data over a five-year period. Linear dependence proved to be the most reliable (100%) out of other relations. It provides for the extrapolation of humus content values to years of the project life. As a result of linear approximation, the dependence is as follows (extrapolation is performed for each field individually):

$$k_{b,i,y} = a \cdot y + b, \quad (7)$$

Coefficients a, b (see Supporting Document 1) are determined using Microsoft Excel features by building a trend line on the basis of historical data over the 5 years prior to the project. The linear dependence has the lowest function error.

where
$k_{b,i,y}$ – humus content in the soil of field *i* cultivated by using traditional tillage in period *y*, %;
*a* – coefficient of linear dependence;
*b* - coefficient of linear dependence;
*[b]* – index corresponding to system of baseline technology;

*[i]* – index corresponding to system of number of fields;
*[y]* – index corresponding to monitoring period system.

**Formulae used to calculate emission reductions from the project (for each gas, source etc.; emissions/emission reductions in units of $CO_2$ equivalent):**

Emission reductions resulting from the project activity are calculated using the following formula:

$$ER_y = BE_y - PE_y \quad (8)$$

where

$ER_y$ - GHG emission reductions due to the project activity in period *y,* t $CO_2$eq;
$BE_y$ - baseline GHG emissions in period *y*, t $CO_2$eq;
$PE_y$ - project GHG emissions in period *y*, t $CO_2$eq;
*[y]* – index corresponding to monitoring period system.

Supporting document 1 contains a calculation of emission reductions for each year of the reporting period.

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

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. To implement the project an operating structure was established. It consists of LLC "Beta-Agro-Invest" agronomists and engineers (they are responsible for the accounting of area, which is cultivated by No-till technology), Engineering and Technological Institute "Biotekhnika" (they are responsible for providing agrochemical data for project monitoring), LLC "Beta-Agro-Invest" chief agronomist (records and reports data in the table) and LLC "Beta-Agro-Invest" manager (handles and archives the data provided). All data are stored on paper and in electronic form. The management structure includes LLC "Beta-Agro-Invest" director and CEP CARBON EMISSIONS PARTNERS S.A. developers of the project.

The monitoring plan provides a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, 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 the monitoring plan, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 29 - CAR 33; CL 07).

## 4.8 Leakage (40-41)

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

According to the selected specific approach used in this JI project, there are no potential sources of leakage from the project activity.

All emissions from combustion of diesel fuel are included in the potential project emissions because the combustion takes place at fields and is included in the project boundary.

## 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): absent;

(b) Leakage is not expected in the project boundary;

(c) Emissions for the baseline scenario (within the project boundary), which are 17 293 tons of CO2eq in 2007, 560 863 tons of CO2eq in 2008-2012, 2 560 922 tons of CO2eq in 2013-2026;

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are 17 293 tons of CO2eq in 2007, 560 863 tons of CO2eq in 2008-2012, 2 560 922 tons of CO2eq in 2013-2026.

The estimates referred to above are given:

(a) On an annual basis;

(b) From 01/01/2007 to 31/12/2026, covering the whole crediting period;

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

(d) For each GHG gas, which is $CO_2$;

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

The formula used for calculating the estimates referred above, are given in section 4.7. All formulae are consistent throughout the PDD.

For calculating the estimates referred to above, such key factors as the Ukrainian environmental legislation and other national legislation, as well as key relevant factors such as availability of funds for implementation of measures envisaged by the project, prices that are set by the state, modern technology and the ability to implement know-how in the agricultural sector, influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as documents and archival data of the enterprise, standards and statistical forms, results of periodic verifications are clearly identified, reliable and transparent.

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

The estimates referred to above are consistent throughout the PDD.

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

Detailed algorithms of calculations and their results are described in sections D, E and Supporting documents to the PDD.

The identified areas of concern as to the estimation of emission reductions, project participants response and BVC's conclusion are described in Appendix A to the Determination Report (refer to CAR 34, CAR 35).

## 4.10 Environmental impacts (48)

Sections F.1. and F.2. of the PDD provide information about documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party.

The PDD states that according to the law of Ukraine "On Environmental Protection" and DBN A.2.2-1-2003 «Composition and content of the materials of environment impact assessment (EIA) for design and construction of plants, buildings and structures» , LLC «Beta-Agro-Invest» is not obliged to carry out EIA development for this type of project.

In general, the project will have positive impact on the environment because the replacement of conventional tillage with No-till technology will result in lower GHG emissions into the atmosphere and lower diesel fuel consumption for LLC «Beta-Agro-Invest» farmland cultivation.

Transboundary impacts due to the project activity according to their definition in the text of “Convention on long-range transboundary pollution”, ratified by Ukraine, will not take place.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.

The identified areas of concern as to the environmental impacts, project participants response and BVC’s conclusion are described in Appendix A to the Determination Report (refer to CL 08).

## 4.11 Stakeholder consultation (49)

LLC “Beta-Agro-Invest” informed the community through mass media. All comments received were positive. No negative comments on the project have been reported.

## 4.12 Determination regarding small scale projects (50-57)

Not applicable.

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

Not applicable.

### 4.14 Determination regarding programmes of activities (65-73)

Not applicable.

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

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

## 6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" Project in Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

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

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

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

The determination revealed one pending issue related to the current determination stage of the project: the issue of the written approval of the project by the host Party (Ukraine). If the written approval by the host Party is awarded, it is our opinion that the project as described in the Project Design Document, Version 03 dated 07/06/2012 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria as well as project stakeholders expectations.

The review of the project design documentation (version 03 dated 07/06/2012) 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 CEP CARBON EMISSIONS PARTNERS S.A. . that relate directly to the GHG components of the project.

| | |
|---|---|
| /1/ | The PDD "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry", version 01 dated 30/03/2012 |
| /2/ | The PDD "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry", version 02 dated 23/05/2012 |
| /3/ | The PDD "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry", version 03 dated 07/06/2012 |
| /4/ | Supporting document 1. "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" |
| /5/ | Supporting documents 2. Investment analysis of the JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" |
| /6/ | "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Version 01.1.0) |
| /7/ | Letter of Endorsement No.1462/23/7 issued by the State Environmental Investment Agency of Ukraine dated 07/06/2012 |
| /8/ | Guidelines for users of the JI PDD form. Version 04, JISC |
| /9/ | Tool for the demonstration and assessment of additionality, version 06.0.0. |
| /10/ | The Kyoto Protocol |
| /11/ | Marrakesh Agreement, JI Methods |
| /12/ | Third National Communication of Ukraine on climate change under the Kyoto Protocol |
| /13/ | Fourth National Communication of Ukraine on climate change under the Kyoto Protocol |
| /14/ | Fifth National Communication of Ukraine on climate change under the Kyoto Protocol |
| /15/ | Law of Ukraine "On fundamental principles of state agricultural policy until 2015" |
| /16/ | Law of Ukraine "On Environmental Protection" |
| /17/ | Strategic directions of the development of agriculture in Ukraine until 2020 |

| | |
|---|---|
| /18/ | JI guidelines. Appendix to decision 9/CDM.1. |
| /19/ | JI Determination and Verification Manual, Version 01 |
| /20/ | Guidance on criteria for baseline setting and monitoring, JISC. Version 03. |

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

| | |
|---|---|
| /1/ | Agricultural equipment sale agreement No. 12/JD-PU/010408 dated 01/04/2008 |
| /2/ | Agricultural equipment sale agreement No. 1ST- PU/220205 dated 22/02/2005 |
| /3/ | Agricultural equipment sale agreement No. 3JD- PU/200405 dated 20/04/2005 |
| /4/ PU | Agricultural equipment sale agreement No. 16JD- PU/1001111 dated 10/01/2011 |
| /5/ | Certificate of machinery registration No. 628499 (wheel-tyre tractor John Deere 8530) |
| /6/ | Certificate of machinery registration No. 707071 (self-propelled sprayer John Deere 5430i) |
| /7/ | Certificate of machinery registration No. 175992 (wheel-tyre tractor John Deere 6930) |
| /8/ | Certificate of machinery registration No. 175993 (wheel-tyre tractor John Deere 6930) |
| /9/ | Certificate of machinery registration No. 137623 (wheel-tyre tractor John Deere 7930) |
| /10/ | Certificate of machinery registration No. 176146 (wheel-tyre tractor John Deere 8345R) |
| /11/ | Certificate of machinery registration No. 175994 (wheel-tyre tractor John Deere 8360R) |
| /12/ | Certificate of machinery registration No. 139057 (wheel-tyre tractor John Deere 6930) |
| /13/ | Certificate of machinery registration No. 139056 (wheel-tyre tractor John Deere 6930) |
| /14/ | Certificate of machinery registration No. 139062 (sowing machine John Deere 1780) |
| /15/ | Certificate of machinery registration No. 139064 (sowing machine John Deere 1780) |
| /16/ | Certificate of machinery registration No. 409617 (wheel-tyre tractor John Deere 8530) |
| /17/ | Certificate of machinery registration No. 409616 (wheel-tyre tractor John Deere 8520) |
| /18/ | Certificate of machinery registration No. 627077 (wheel-tyre tractor John Deere 8530) |

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|---|---|
| /19/ | Certificate of machinery registration No. 628424 (wheel-tyre tractor John Deere 8530) |
| /20/ | Registry of fields where No-till technology is applied of the joint implementation project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" |
| /21/ | Measurement of soil quality protocol No. 3 dated May 10, 2012 |
| /22/ | Measurement of soil quality protocol No. 4 dated May 10, 2012 |
| /23/ | Measurement of soil quality protocol No. 5 dated May 10, 2012 |
| /24/ | Measurement of soil quality protocol No. 6 dated May 10, 2012 |
| /25/ | Measurement of soil quality protocol No. 7 dated May 10, 2012 |
| /26/ | Measurement of soil quality protocol No. 8 dated May 10, 2012 |
| /27/ | Measurement of soil quality protocol No. 9 dated May 10, 2012 |
| /28/ | Measurement of soil quality protocol No. 10 dated May 10, 2012 |
| /29/ | Measurement of soil quality protocol No. 11 dated May 10, 2012 |
| /30/ | Measurement of soil quality protocol No. 12 dated May 10, 2012 |
| /31/ | Measurement of soil quality protocol No. 13 dated May 10, 2012 |
| /32/ | Measurement of soil quality protocol No. 14 dated May 10, 2012 |
| /33/ | Measurement of soil quality protocol No. 15dated May 10, 2012 |
| /34/ | Measurement of soil quality protocol No. 16 dated May 10, 2012 |
| /35/ | Measurement of soil quality protocol No. 17 dated May 10, 2012 |
| /36/ | Measurement of soil quality protocol No. 18 dated May 10, 2012 |
| /37/ | Measurement of soil quality protocol No. 19 dated May 10, 2012 |
| /38/ | Measurement of soil quality protocol No. 20 dated May 10, 2012 |
| /39/ | Measurement of soil quality protocol No. 21 dated May 10, 2012 |
| /40/ | Measurement of soil quality protocol No. 22 dated May 10, 2012 |
| /41/ | Measurement of soil quality protocol No. 23 dated May 10, 2012 |
| /42/ | Measurement of soil quality protocol No. 24 dated May 10, 2012 |
| /43/ | Measurement of soil quality protocol No. 25dated May 10, 2012 |
| /44/ | Measurement of soil quality protocol No. 26 dated May 10, 2012 |
| /45/ | Measurement of soil quality protocol No. 27 dated May 10, 2012 |
| /46/ | Measurement of soil quality protocol No. 28 dated May 10, 2012 |
| /47/ | Measurement of soil quality protocol No. 29 dated May 10, 2012 |
| /48/ | Measurement of soil quality protocol No. 30 dated May 10, 2012 |
| /49/ | Measurement of soil quality protocol No. 31 dated May 10, 2012 |
| /50/ | Measurement of soil quality protocol No. 32 dated May 10, 2012 |
| /51/ | Measurement of soil quality protocol No. 33 dated May 10, 2012 |
| /52/ | Measurement of soil quality protocol No. 34 dated May 10, 2012 |
| /53/ | Measurement of soil quality protocol No. 35 dated May 10, 2012 |
| /54/ | Measurement of soil quality protocol No. 36 dated May 10, 2012 |
| /55/ | Measurement of soil quality protocol No. 37 dated May 10, 2012 |
| /56/ | Measurement of soil quality protocol No. 38 dated May 10, 2012 |
| /57/ | Measurement of soil quality protocol No. 39 dated May 10, 2012 |
| /58/ | Measurement of soil quality protocol No. 40 dated May 10, 2012 |
| /59/ | Measurement of soil quality protocol No. 41 dated May 10, 2012 |
| /60/ | Measurement of soil quality protocol No. 42 dated May 10, 2012 |

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|---|---|
| /61/ | Measurement of soil quality protocol No. 43 dated May 10, 2012 |
| /62/ | Measurement of soil quality protocol No. 44 dated May 10, 2012 |
| /63/ | Measurement of soil quality protocol No. 45 dated May 10, 2012 |
| /64/ | Measurement of soil quality protocol No. 46 dated May 10, 2012 |
| /65/ | Measurement of soil quality protocol No. 47 dated May 10, 2012 |
| /66/ | Measurement of soil quality protocol No. 48 dated May 10, 2012 |
| /67/ | Measurement of soil quality protocol No. 49 dated May 10, 2012 |
| /68/ | Measurement of soil quality protocol No. 50 dated May 10, 2012 |
| /69/ | Measurement of soil quality protocol No. 51 dated May 10, 2012 |
| /70/ | Measurement of soil quality protocol No. 52 dated May 10, 2012 |
| /71/ | Measurement of soil quality protocol No. 53 dated May 10, 2012 |
| /72/ | Measurement of soil quality protocol No. 54 dated May 10, 2012 |

**Persons interviewed:**

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

| | Name | Organization | Position |
|---|---|---|---|
| /1/ | Vitalii Hnennyi | LLC «Beta-Agro-Invest» | Director, Working Team member |
| /2/ | Viacheslav Serdiuchenko | LLC «Beta-Agro-Invest» | Chief accountant |
| /3/ | Oleksandr Khvorostov | LLC «Beta-Agro-Invest» | Chief agronomist |
| /4/ | Tetiana Dirko | LLC «Beta-Agro-Invest» | Deputy director of agricultural production |
| /5/ | Artem Milenko | LLC «Beta-Agro-Invest» | Deputy chief of legal department |
| /6/ | Inna Telnova | LLC «Beta-Agro-Invest» | Manager |
| /7/ | Roman Ushatskyi | LLC «CEP» | Consultant of CEP CARBON EMISSIONS PARTNERS S.A. . |

# APPENDIX A: COMPANY PROJECT DETERMINATION PROTOCOL

**BUREAU VERITAS CERTIFICATION HOLDING SAS**

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

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| **Guidelines for Users of the JI PDD form Section A General description of the project** | | | | |
| **A.1. Title of the project** | | | | |
| A.1 | Is the title of the project presented? | The title is presented. The title of the project is "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry". | OK | OK |
| A.1 | Is the sectoral scope to which the project pertains presented? | Sectoral scope:<br>Sectoral scope 15 - Agriculture | OK | OK |
| A.1 | Is the current version number of the document presented? | The current version of the document: PDD, Version 03 dated 07/06/2012. See Section A.1. | OK | OK |
| A.1 | Is the date when the document was created presented? | The date when the document was created: 07/06/2012. | OK | OK |
| **A.2. Description of the project** | | | | |
| A.2 | Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the:<br>a) Situation existing prior to the starting date of the project | The purpose of the Joint Implementation (JI) Project is to reduce anthropogenic greenhouse gas (GHG) emissions due to changing the agricultural land management system, namely replacement of traditional soil tillage in agriculture with No-till technology. | **CAR 01** | OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | b) Baseline scenario and<br>c) Project scenario (expected outcome, including a technical description)? | Emissions are reduced due to lower carbon dioxide emissions from farmland achieved by reducing (almost zero) topsoil disturbance by tillage in the course of technological procedures of soil cultivation in the process of crop growing.<br>The project provides for the implementation of modern direct sowing farming technology under which the soil is not ploughed but the ground surface is covered with a layer of mulch, i.e. residues of purposely shredded plants. As the top layer of soil is not disturbed, such farming system along with residues create a protedtive layer that prevents water and wind erosion of soil and ensures much better water retention; in addition, direct sowing nullifies GHG emissions into the atmosphere.<br>Detailed information on the baseline and project scenarios with technical description is given in Sections A.2 and A.4.2. of the PDD.<br>**CAR 01**. Please, add information relating to the situation exsisting prior to the starting date of the project to Section A.2. | | |
| A.2 | Is the history of the project (incl. its JI component) briefly summarized? | **CAR 02.** Please provide more detailed information about the history of the project (including its JI component) as well as the documents confirming this information as Supporting ones.<br>**CAR 03.** Please state the starting date of the JI project | **CAR 02**<br>**CAR 03** | OK<br>OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | | "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry". | | |
| **A.3. Project participants** | | | | |
| A.3 | Are project participants and Party (ies) involved in the project listed? | Parties involved in the project: LLC "Beta-Agro-Invest" (Ukraine - the host party and LHCarbon OÜ (Estonia). | OK | OK |
| A.3 | Is the data of the project participants presented in tabular format? | The data of the project participants is presented in tabular format. | OK | OK |
| A.3 | Is contact information provided in Annex 1 of the PDD? | Contact information on parties involved is provided in Annex 1 of the PDD.<br>**CAR 04.** Please, in Annex 1 of the PDD state which project participant is the purchaser of the ERUs. | **CAR 04** | OK |
| A.3 | Is it indicated, if it is the case, that the Party involved is a host Party? | Ukraine is the Host Party. | OK | OK |
| **A.4 Technical description of the project** | | | | |
| Location of the project | | | | |
| A.4.1.1 | Host Party(ies) | Ukraine is the Host Party. | OK | OK |
| A.4.1.2 | Region/State/Province etc. | Yasynuvatskyi, Dobropilskyi, Kostiantynivskyi and Krasnoarmiiskyi districts of Donetsk region, Ukraine | OK | OK |
| A.4.1.3 | City/Town/Community etc. | Villages of Yasynuvatskyi, Dobropilskyi, Kostiantynivskyi and Krasnoarmiiskyi districts of Donetsk region | OK | OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| A.4.1.4 | Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page). | Information about location is given in Section A.4.1.4 of the PDD.<br>**CAR 05.** Please, provide detailed information about the location of the project. | **CAR 05** | OK |
| **A.4.2. Technologies to be employed, or measures, operations or actions to be implemented by the project** | | | | |
| A.4.2 | 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 the description of the main stages of the project implementation, the annual project activities schedule, some relevant technical data relating to main equipment to be implemented as well as project activities.<br>Project design represents the current cutting-edge practice.<br>**CAR 06.** Please, in Section A.4.2. specify information on soil evaluation and necessity of soil evaluation.<br>**CAR 07.** Please provide specifications of self-propelled sprayer John Deere 5430i.<br>**CAR 08.** Please provide a link to web-sites of direct sowing machine John Deere 1780 manufacturer.<br>**CAR 09.** Please provide information on the model of John Deere tractors, used in the project.<br>**CAR 10.** Please, provide the explanation relating to Figure 6 in Annex 4 to the PDD. | **CAR 06**<br>**CAR 07**<br>**CAR 08**<br>**CAR 09**<br>**CAR 10**<br>**CAR 11**<br>**CL 01**<br>**CL 02**<br>**CL 03**<br>**CL 04**<br>**CL 05** | OK<br>OK<br>OK<br>OK<br>OK<br>OK<br>OK<br>OK<br>OK<br>OK<br>OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | | **CAR 11.** Please provide the project implementation schedule in tabular form with indication of start dates and end dates for each activity and stage.<br><br>**CL 01.** Please provide clarification on the use of chemical and biological method of weed control.<br><br>**CL 02.** Please provide information on replacement of equipment during the project activity.<br><br>**CL 03.** Please provide information regarding the advisability of special training of personnel.<br><br>**CL 04.** Please provide explanation of how the control over the population of mound-mice will be exercised.<br>**CL 05.** Please provide an explanation of the practicability of the use of John Deere technological equipment in the project activities. | | |
| **A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances** | | | | |
| A.4.3 | Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page) | Emissions are reduced due to lower carbon dioxide emissions from farmland achieved by reducing (almost zero) topsoil disturbance by tillage in the course of technological procedures of soil cultivation in the process of crop growing. | OK | OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | | It is unlikely that the project would be implemented without the JI mechanism which provides a significant additional incentive. This is due to the following factors:<br>- In Ukraine there are no legal requirements relating to the introduction of direct sowing technology instead of conventional mechanical tillage systems. Implementation of this project could only be an initiative of an enterprise itself. No significant changes in the legislation that could force enterprises to give up the existing tillage practice, involving ploughing, are expected.<br>- There are no restrictions for Ukrainian enterprises regarding GHG emissions and they are unlikely to be imposed.<br>- Implementation of the project requires considerable investment in agricultural equipment and is associated with financial risks and risks relating to the operation of new technology, such as issues of productivity and use of new machinery. Without the income from the sale of emission reduction units (ERUs), the project is not attractive enough for investment. | | |
| A.4.3 | Is it provided the estimation of emission reductions over the crediting period? | The estimation of emission reductions over the crediting period is provided in Section A.4.3.1. of the PDD. | **CAR 12**<br>**CAR 13**<br>**CAR 14** | OK<br>OK<br>OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | | **CAR 12**. In the PDD it is stated that the starting date of the crediting period is January 1, 2007, and in Section A.4.3.1. information on the number of emission reductions is provided for years 2008-2026 Please provide information on GHG emission reductions for 2007.<br>**CAR 13.** In Table (Section A.4.3.1.) that indicates the estimated amount of emission reductions after the first commitment period (2013-2026) duration of the crediting period is stated incorrectly, please, make the necessary corrections.<br>**CAR 14.** In Section A.4.3.1 average annual emission reductions provided by the project during the first commitment period (2008-2012) are stated incorrectly. Please recalculate the relevant data. | | |
| A.4.3 | Is it provided the estimated annual reduction for the chosen credit period in $tCO_2e$? | The estimated annual reduction for the first commitment period as well as the estimated annual reduction for the period before and after the first commitment period within the project are provided in $tCO_2e$. | OK | OK |
| A.4.3 | Are the data from questions above presented in tabular format? | Information on the crediting period, the period before and after the crediting period is presented in tabular format. See PDD (Version 03) Tables 11, 12 and 13, Section A.4.3.1. | OK | OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| **A.4.3.1. Estimated amount of emission reductions over the crediting period** | | | | |
| A.4.3.1 | Is the length of the crediting period Indicated? | The length of the crediting period is indicated in the PDD Section A.4.3.1. and Section C. | OK | OK |
| A.4.3.1 | 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 tables of Section A of PDD and the Supporting Documents.<br>Refer to **CAR 14**. | 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 36**. The project has no approval of Ukraine and country-participant.<br>To obtain the Letter of Approval the final Determination report must be submitted to the State Environmental Investment Agency of Ukraine that includes this Determination Protocol and the list of sources of Reference Information.<br>A Letter of Approval of country-participant fis also not obtained at the current stage of the Project.<br>**CAR 36** will be closed after the Letters of Approval are issued by the Parties involved. | **CAR 36** | Pending |
| 19 | Does the PDD identify at least the host Party as a "Party involved"? | The Host Party involved is Ukraine. | OK | OK |
| 19 | Has the DFP of the host Party issued a | Reference to **CAR 36.** | **CAR 36** | Pending |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | written project approval? | | | |
| 20 | Are all the written project approvals by Parties involved unconditional? | Reference to **CAR 36.** | **CAR 36** | 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:<br>− A written project approval by a Party involved, explicitly indicating the name of the legal entity? or<br>− Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity? | Party involved 1: Ukraine (the host Party), legal entity is LLC "Beta-Agro-Invest".<br>Party involved 2: Estonia, legal entity is LHCarbon OÜ<br>The project participants will be authorized in accordance with the relevant project approvals.<br>Pending **CAR 36** | **CAR 36** | Pending |
| **Baseline setting** | | | | |
| 22 | Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline?<br>− JI specific approach<br>− Approved CDM methodology approach | The chosen baseline is described in Section B.1 of the PDD. A specific JI approach is used for setting the baseline.<br>**CAR 15.** In Section B 1. of the PDD the name of the approach, which was used to set the baseline is not correct. Please provide the correct name, according to the Guidance on criteria for baseline setting and monitoring. | **CAR 15** | OK |
| **JI specific approach only** | | | | |

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| 23 | Does the PDD provide a detailed theoretical description in a complete and transparent manner? | The choice of the applicable baseline for the project is justified; detailed theoretical description is provided in section B.1 of PDD version 03.<br>**CAR 16**. Please, provide information about the basis for baseline calculation. | **CAR 16** | OK |
| 23 | Does the PDD provide justification that the baseline is established:<br>(a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one?<br>(b) Taking into account relevant national and/or sectoral policies and circumstance?<br>− Are key factors that affect a baseline taken into account?<br>(c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors?<br>(c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors?<br>(e) In such a way that ERUs cannot be earned for decreases in activity levels | The PDD provides detailed, full and transparent description and justification that the baseline is established:<br>(a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one:<br>- Alternative 1.1: Continuation of the current situation, without the JI project implementation.<br>- Alternative 1.2: Proposed project activity without the use of the JI mechanism.<br>- Alternative 1.3: Partial project activities (some of the project activities are implemented) without the use of the Joint Implementation Mechanism.<br>(b) By taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, agricultural 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: | OK | OK |

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| | outside the project or due to force majeure?<br>(f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate? | - agriculture is one of the leading industries in Ukraine; Agriculture in general and agro-industrial complex (AIC) in particular are a political factor of sovereignty;<br>- in the framework of the existing market model for the growing of AIC products, the effective competition among the producers can't be achieved; this market model can't also provide for the competitive pricing, which would stimulate the producers to improve efficiency and increase investment in the sector'<br>- existing prices for AIC product growing are regulated by the state;<br>- the current Ukrainian system of formation of prices for AIC products does not include an investment component for the development of agriculture;<br>- state support in the agricultural sector is provided in amounts of funds provided by the law of Ukraine on State Budget of Ukraine for the relevant year.<br>(c) In a transparent manner with regard to the choice of JI approach and assumptions, parameters, data sources and key factors for identifying initial conditions | | |

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| | | listed in tabular format in Section B.1.<br>(d) By taking into account of uncertainties and using conservative assumptions<br>(e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure<br>(f) By drawing on the list of standard variables.<br>The baseline is set; the description is given in Section B of the PDD. | | |
| 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? | The baseline assumptions of the developed JI specific approach are clearly described in full in Section B.1 of the PDD version 03.<br><br>**CAR 17.** Please, in Section B.1. provide a detailed theoretical description of the baseline in a comprehensive and transparent manner (formulae). This is a requirement of Guidelines for users of the JI PDD form.<br>**CAR 18**. Please, provide a graphic figure of change trends of humus content in soil of a field in Section B.1. In the description of the baseline, please track changes in humus content according to measurements.<br>**CAR 19.** Please check the indexes of parameters for setting the baseline. | **CAR 17**<br>**CAR 18**<br>**CAR 19**<br>**CAR 20**<br>**CAR 21** | OK<br>OK<br>OK<br>OK<br>OK |

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| | | **CAR 20.** Description of most parameters listed in Section B.1. does not meet the description of the same parameters listed in Section D of the PDD. Please make necessary corrections.<br>**CAR 21.** Some parameter and data identifiers do not correspond to the list of standard variables presented in Annex B of the "Guidance on criteria for baseline setting and monitoring". Please make corresponding corrections of Section B of PDD. | | |
| 25 | If a multi-project emission factor is used, does the PDD provide appropriate justification? | A multi-project emission factor is used in calculations of emission reductions. | OK | OK |
| **CDM methodology approach only** | | | | |
| **Additionality** | | | | |
| **JI specific approach only** | | | | |
| 28 | Does the PDD indicate which of the following approaches for demonstrating additionality is used?<br>(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 | The PDD indicates that the project scenario is not a part of the established baseline scenario. It is also stated that the project will lead to emission reductions. Additionality of the project activity is demonstrated in PDD Section B.2 using the "Tools for the demonstration and assessment of additionality" (Version 06.0.0).<br>**CAR 22.** Please, in Section B.2. provide reference to average value of credit resources in 2005.<br>**CAR 23.** Parameter identifier of the discount rate does | **CAR 22**<br>**CAR 23**<br>**CAR 24**<br>**CAR 25**<br>**CAR 26** | OK<br>OK<br>OK<br>OK<br>OK |

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| | (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality<br>(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". | not comply with the list of standard variables, which are presented in Appendix B to the "Guidelines on criteria for baseline setting and monitoring." Please make the corrections.<br>**CAR 24.** In Section B.2. of the PDD it is stated that the real discount rate is adjusted by inflation for the Eurozone. Discount rate can not be adjusted by inflation in the calculation. Please make the necessary corrections.<br>**CAR 25.** Please provide the calculation of investment returns until 2026 to the determination team, since the implementation of the project activities is planned until 2026.<br>**CAR 26.** In Section B.2. it is stated that given the values of expected cost of investments and income from the sale of ERUs the project is viable and will bring enough profit even in case the project is financed with loans; the project must bring a profit, even if the above changes in value of investments take place. The calculation presented in the supporting document indicates the opposite information. | | |
| 29 (a) | Does the PDD provide a justification of the applicability of the approach with a clear and transparent description? | Detailed analysis described in Sections A.4.3, B.1 and B.2, shows that emissions of the baseline scenario are likely to exceed emissions of the project scenario due to the implementation of project activities. | OK | OK |

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| 29 (b) | Are additionality proofs provided? | Yes. Refer to Section B.2. of the PDD. | OK | OK |
| 29 (c) | Is the additionality demonstrated appropriately as a result? | The fact that the project activity itself is not the baseline scenario is clearly demonstrated in Sections A.2, B.1, B.2 of the PDD.<br><br>**CL 06.** Please specify whether there are any mandatory government programs or policy which provide for mandatory implementation of No-till technologies by agricultural farms. | **CL 06** | OK |
| 30 | If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method? | All explanations, descriptions and analyses are made in accordance with the newest version of the "Tools for the demonstration and assessment of additionality". (Version 06.0.0) | OK | OK |
| **Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable** | | | | |
| **Project boundary (applicable except for JI LULUCF projects)** | | | | |
| **JI specific approach only** | | | | |
| 32 (a) | Does the project boundary defined in the PDD encompass all anthropogenic emissions<br>by sources of GHGs that are:<br>(i) Under the control of the project participants? | The project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are:<br>(i) Under the control of the project participants such as: | | |

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| | (ii) Reasonably attributable to the project?<br>(iii) Significant? | - $CO_2$ emissions due to tillage that involves ploughing in the process of crop growing.<br><br>(ii) Reasonably attributable to the project such as: Such $CO_2$ emissions are absent;<br><br>(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. | | |
| 32 (b) | Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above? | Project boundary is defined on the basis of case-by-case assessment of different emission sources. | OK | OK |
| 32 (c) | Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart if it is possible? | The project boundary is presented in a tabular form and are understandable enough so that there is no need of graphic presentation. | OK | OK |
| 32 (d) | Are all gases and sources included | All gases and sources included are explicitly stated. | OK | OK |

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| | explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified? | See Section B of PDD. | | |
| **Approved CDM methodology approach only_Paragraph 33_ Not applicable** | | | | |
| **Crediting period** | | | | |
| 34 (a) | Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began? | The starting date of the project was determined according to the Glossary of Joint Implementation Terms (version 03); the starting date of the project is 22/02/2005 the date on which the agricultural equipment sale contract was signed.<br>The starting date of the project is identified and specified in Section C. 1 of the PDD.<br>**CAR 27.** The starting date of the project specified in Section C.1 does not comply with the date specified in Section A.2. Please make necessary corrections. | **CAR 27** | OK |
| 34 (a) | Is the starting date after 2000? | The starting date is after 2000. | OK | OK |
| 34 (b) | Does the PDD state the expected operational lifetime of the project in years and months? | The expected operational lifetime of the project in years and months is 20 years, or 240 months, from 01/01/2007 to 31/12/2026. | OK | OK |
| 34 (c) | Does the PDD state the length of the crediting period in years and months? | The length of the crediting period is stated in years and months in Section C.3.<br>**CAR 28.** The starting date of the crediting period - is the date when the first emission reductions are | **CAR 28** | OK |

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| | | expected to be generated. Please clearly set the crediting period boundaries and justify them. | | |
| 34 (c) | Is the starting date of the crediting period before or after the date of the first emission reductions or enhancements of net removals generated by the project? | Refer to **CAR 28**. | 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? | Generation of ERUs relates to the first commitment period of 5 years (January 1, 2008 – December 31, 2012). | 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?<br>Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012? | The PDD states that the prolongation of the crediting period beyond 2012 is subject to approval of the host party and estimation of emission reductions is presented separately for those until 2012 and those after 2012 in the relevant sections of PDD.<br>If after the first commitment period under the Kyoto protocol, the Kyoto protocol is prolonged, the crediting period under the project will be prolonged by 14 years/168 months until December 31, 2026. | OK | OK |
| **Monitoring Plan** | | | | |
| 35 | Does the PDD explicitly indicate which of | The proposed project uses a JI specific approach | OK | OK |

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| | the following approaches is used?<br>− JI specific approach<br>− Approved CDM methodology approach | based on the JI requirements in accordance with paragraph 9 (a) of the JI Guidance on criteria for baseline setting and monitoring, version 03. | | |
| **JI specific approach only** | | | | |
| 36 (a) | Does the monitoring plan describe:<br>− All relevant factors and key characteristics subject to monitoring?<br>− The period in which they will be monitored?<br>− All critical factors for the control and reporting of project performance? | The monitoring plan specifies all key factors for the control and reporting on project performance: quality control (QC) and quality assurance (QA) procedures; operational and management structures that will be applied when implementing the monitoring plan.<br><br>**CAR 29.** Please, provide description of parameters that are subject to monitoring procedure according to section D of the PDD. | **CAR 29** | OK |
| 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 indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancement of net removals to be monitored.<br>Data to be monitored are presented in section D of the PDD.<br>**CL 07.** Please clarify how the information relating to monitoring under the project will be stored.<br>**CAR 30.** Please check data units of monitoring data and parameters in Sections D.1.1.1 and D.1.1.3 of the PDD in accordance with the formulae. | **CL 07**<br>**CAR 30** | OK<br>OK |

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| 36 (b) | If default values are used:<br>− Are accuracy and reasonableness carefully balanced in their selection?<br>− Do the default values originate from recognized sources?<br>− Are the default values supported by statistical analyses providing reasonable confidence levels?<br>− Are the default values presented in a transparent manner? | Default values are provided in the table of Annex 3 to the PDD. They originate from recognized sources and are presented in a transparent manner. | OK | OK |
| 36 (b) (i) | For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified? | The monitoring plan clearly indicates how the values are to be selected and justified. | OK | OK |
| 36 (b) (ii) | For other values,<br>− Does the monitoring plan clearly indicate the precise references from which these values are taken?<br>− Is the conservativeness of the values provided justified? | **CAR 31**. Please, number all formulae in Section D of the PDD.<br><br>**CAR 32**. All the values of baseline and project emissions as well as emission reductions under the project are to be stated in tonnes of $CO_2$ equivalent. Please, make the relevant corrections in the formulae provided in Section D. | **CAR 31**<br>**CAR 32** | OK<br>OK |
| 36 (b) (iii) | For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable? | Refer to section D of the PDD.<br><br>**CAR 33.** Please add information regarding collecting | **CAR 33** | OK |

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| | | and archiving of data in Section D.1.1. | | |
| 36 (b) (iv) | Are International System Units (IS units) used? | IS units are used for certain parameters. | 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? | Relevant data necessary for determining the baseline scenario for anthropogenic emissions of greenhouse gases within the project boundary are presented in table D.1.1.3. of the PDD. | OK | OK |
| 36 (b) (v) | Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan? | The use of parameters, coefficients and variables are consistent between the baseline and monitoring plan. | OK | OK |
| 36 (c) | Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"? | The monitoring plan is set taking into account the "Guidance on criteria for baseline setting and monitoring". | OK | OK |
| 36 (d) | Does the monitoring plan explicitly and clearly distinguish:<br>(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?<br>(ii) Data and parameters that are not | The monitoring plan clearly distinguishes three types of data and parameters. Refer to Section D.1. of the PDD.<br>(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.<br>(ii) Data and parameters that are monitored throughout the crediting period. | OK | OK |

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| | monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not yet available at the stage of determination?<br>(iii) Data and parameters that are monitored throughout the crediting period? | (iii) 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 yet available at the stage of determination are absent. | | |
| 36 (e) | Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording? | In tables of parameters provided in section D.1.1.3. of the PDD the time of monitoring (frequency) and the source of data to be used, as well as recording method 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. The description of formulae is provided in Section D of the PDD | OK | OK |
| 36 (f) (i) | Is the underlying rationale for the algorithms/formulae explained? | Refer to section 36 (f) of this table. | OK | OK |
| 36 (f) (ii) | Are consistent variables, equation formats, subscripts etc. used? | Consistent variables, equation formats, subscripts etc. are used. | OK | OK |

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| | | | | |
| 36 (f) (iii) | Are all equations numbered? | See **CAR 31.** | OK | OK |
| 36 (f) (iv) | Are all variables with units indicated defined? | Yes. Refer to section D of the PDD. | OK | OK |
| 36 (f) (v) | Is the conservativeness of the algorithms/procedures justified? | Yes, algorithms/procedures comply with state norms and are conservative. | OK | OK |
| 36 (f) (v) | To the extent possible, are methods to quantitatively account for uncertainty in key parameters included? | Uncertainty in parameters used is low taking into account the algorithms of data monitoring. | 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 procedure for calculating the baseline emissions in the monitoring plan and in tables. | 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? | Monitoring under the project does not require changes in existing accounting and data collection system existing at LLC “Beta-Agro-Invest”. | OK | OK |
| 36 (f) (vii) | Are references provided as necessary? | All necessary references are provided. | OK | OK |
| 36 (f) (vii) | Are implicit and explicit key assumptions explained in a transparent manner? | All key assumptions are explained in a transparent manner. | OK | OK |

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| 36 (f) (vii) | Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed? | N/A | OK | OK |
| 36 (f) (vii) | Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided? | To ensure conservativeness of parameters constant routine calibration of measuring equipment is carried out and the latest editions of the regulatory and technical documentation is used. In the absence of the latest editions of the regulatory and technical documentation their previous versions will be used. | 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?<br><br>Does the monitoring plan provide a reference as to where a detailed description of the standard can be found? | The monitoring plan identifies that constant routine calibration of measuring equipment is carried out and the latest editions of the regulatory and technical documentation is used. | OK | OK |
| 36 (h) | Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner? | Yes | OK | OK |
| 36 (i) | Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as | Inspection (calibration) of recording and measuring equipment is carried out in accordance with manuals of the manufacturer, approved methodologies on | OK | OK |

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| | appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request? | verification/calibration of measuring equipment as well as according to the national standards of Ukraine. | | |
| 36 (j) | Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities? | Detailed operational and management structures are given in Section D.3 to the PDD. | OK | OK |
| 36 (k) | Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type?<br><br>If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied? | Monitoring under the project does not require any changes in existing accounting system and data collection procedure. | OK | OK |
| 36 (l) | Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations? | Tables in Section D.1.1.3 provide compilation of all data needed to monitor project and baseline emissions. | OK | OK |
| 36 (m) | Does the monitoring plan indicate that the data monitored and required for verification | Data to be monitored and required for determination will be kept for two years after the last transfer of ERUs | OK | OK |

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| | are to be kept for two years after the last transfer of ERUs for the project? | under the project. | | |
| 37 | If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above? | Yes, selected elements of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Version 01.1.0) are used for setting the baseline scenario. The selected elements and combinations with additional elements that were additionally developed by the project participants are in line with requirements of paragraph 36 above. | OK | OK |
| **Approved CDM methodology approach only_Paragraphs 38(a) – 38(d)_Not applicable** | | | | |
| **Applicable to both JI specific approach and approved CDM methodology approach** | | | | |
| 39 | If the monitoring plan indicates overlapping monitoring periods during the crediting period:<br><br>(a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of removals can be calculated independently?<br>(b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be | No periods to overlap during the crediting period are expected. | OK | OK |

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| | monitored for another component)?<br><br>(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?<br><br>(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? | According to the JI specific approach, there aren't any potential sources of leakage due to the project activities. | OK | OK |
| 40 (b) | Does the PDD provide a procedure for an ex ante estimate of leakage? | The PDD states that there isn't any leakage. | OK | OK |
| **Approved CDM methodology approach only_Paragraph 41_Not applicable** | | | | |

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| **Estimation of emission reductions or enhancements of net removals** | | | | |
| 42 | Does the PDD indicate which of the following approaches it chooses?<br>(a) Assessment of emissions or net removals in the baseline scenario and in the project scenario<br>(b) Direct assessment of emission reductions | In the PDD the approach of estimation of emissions in the baseline scenario and in the project scenario is indicated.<br><br>**CAR 34.** Please check the numbering of tables in Section E of the PDD and make corresponding corrections.<br>**CAR 35.** Incorrect references relating to description of formulae of project emissions are stated in Section E. | **CAR 34**<br>**CAR 35** | OK<br>OK |
| 43 | If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of:<br>(a) Emissions or net removals for the project scenario (within the project boundary)?<br>(b) Leakage, as applicable?<br>(c) Emissions or net removals for the baseline scenario (within the project boundary)?<br>(d) Emission reductions or enhancements of net removals adjusted by leakage? | PDD provides estimates of:<br>(a) Emissions in the project scenario (Section E.1)<br>(b) Leakage (Section E.2)<br>(c) Emissions in the baseline scenario (Section E.4)<br>(d) Emission reductions adjusted by leakage (Section E.6). | OK | OK |
| 44 | If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of:<br>(a) Emissions or net removals for the | N/A | N/A | N/A |

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|---|---|---|---|---|
| | project scenario (within the project boundary)?<br>(b) Leakage, as applicable?<br>(c) Emission reductions or enhancements of net removals adjusted by leakage? | | | |
| 45 | For both approaches in 42<br>(a) Are the estimates in 43 or 44 given:<br>(i) On a periodic basis?<br>(ii) At least from the beginning until the end of the crediting period?<br>(iii) On a source-by-source/sink-by-sink basis?<br>(iv) For each GHG?<br>(v) 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?<br>(b) Are the formulae used for calculating the estimates in 43 or 44 consistent throughout the PDD?<br>(c) For calculating estimates in 43 or 44, | (a) Estimates in 43 are given on the periodic basis, in tonnes of $CO_2$ equivalent, on a source-by-source basis, before, during and after the crediting period.<br>(b) The formulae used in PDD are consistent.<br>(c) Key factors influencing baseline emissions and activity level of the project and risks associated with the project are taken into account, as appropriate.<br>(d) Data sources used to calculate the estimates are clearly identified, reliable and transparent.<br>(e) Emission factors were not used.<br>(f) Estimation in 43 is based on conservative assumptions and the most plausible scenario in a transparent manner.<br>(g) Estimates in 43 are consistent throughout the PDD.<br>(h) The annual average of estimated emission reductions are calculated correctly (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 |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | 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?<br>(d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent?<br>(e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?<br>(f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner?<br>(g) Are the estimates in 43 or 44 consistent throughout the PDD?<br>(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 | | | |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | 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 de facto, does the PDD include an illustrative forecasted emissions or net removals calculation? | Baseline emission level is calculated using the specific approach employing elements of "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Version 01.1.0).<br>Forecasted emissions calculation is clearly provided in the PDD. | OK | OK |
| **Approved CDM methodology approach only_Paragraphs 47(a) – 47(b)_Not applicable** | | | | |
| **Environmental impacts** | | | | |
| 48 (a) | Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party? | The environmental impacts of the project have been sufficiently described | 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 | **CL 08.** Please provide clarifications on whether the environmental impact assessment is necessary for this type of project activities according to the legislation of Ukraine. | **CL 08** | OK |

| Guidelines for Users of the JI PDD form or DVM Paragraph | Check Item | Initial finding | Project participants' actions review | Final Conclusion |
|---|---|---|---|---|
| | the procedures as required by the host Party? | | | |
| **Stakeholder consultations** | | | | |
| 49 | If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide:<br>(a) A list of stakeholders from whom comments on the projects have been received, if any?<br>(b) The nature of the comments?<br>(c) A description on whether and how the comments have been addressed? | LLC "Beta-Agro-Invest" informed the community through mass media. All comments received were positive. No negative comments on the project have been reported. | OK | OK |
| **Determination regarding small-scale projects (additional elements for assessment)** | | | | |
| **Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment)** | | | | |
| **Determination regarding programmes of activities (additional/alternative elements for assessment)** | | | | |

## TABLE 2 RESOLUTION OF CORRECTIVE ACTION AND CLARIFICTION REQUESTS

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CAR 01**. Please, add information relating to the situation exsisting prior to the starting date of the project to Section A.2. | A.2 | LLC "Beta-Agro-Invest" is engaged in agricultural activity in the eastern part of Ukraine.<br>Prior to the project, LLC "Beta-Agro-Invest" used traditional land cultivation system. This system involves mechanical tillage that provides for turning over of topsoil to create homogeneous and mellow seedbed. Detailed information about the situation exsisting prior to the starting date of the project is provided in Section A.2. of the PDD version 03. | Information relating to the situation exsisting prior to the starting date of the project was added. The issue is closed. |
| **CAR 02.** Please provide more detailed information about the history of the project (including its JI component) as well as the documents confirming this information as Supporting ones. | A.2 | 22/02/2005 - Contract between LLC "Beta-Agro-Invest" and FIRMA P.H.P. Agro-Efect S.P. Z.O.O. for the purchase of agricultural equipment<br><br>01/05/2005 – starting date of the project design document development for the JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry" | The information about the history of the project is provided in Section A.2 of the PDD. The issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | 28/04/2011 – Preparation and submission of the project idea note to support anthropogenic GHG emission reductions to the State Environmental Investment Agency of Ukraine.<br>07/06/2012 – the State Environmental Investment Agency of Ukraine issued a Letter of Endorsement.<br>Chronology of events that occurred at the enterprise during the early development of the JI projects is presented in Section A.2 of the PDD. | |
| **CAR 03.** Please state the starting date of the JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry". | A.2 | 22/02/2005 is the starting date of the JI project "Reduction of $CO_2$ emissions by systematic utilization of No-till technologies in agricultural industry". Contract for the purchase of agricultural equipment was signed. | The information is provided, the issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CAR 04.** Please, in Annex 1 of the PDD state which project participant is the purchaser of the ERUs. | | EVO CARBON TRADING SERVICES LTD (the UK) is the purchaser of the ERUs. The information is presented in Annex 1 to the PDD. | The information is provided, the issue is closed. |
| **CAR 05.** Please, provide detailed information about the location of the project. | A.4.1.4 | The project is located in Yasynuvatskyi, Dobropilskyi, Kostiantynivskyi and Krasnoarmiiskyi districts of Donetsk region. Detailed information is provided in Section A.4.1.4. | The necessary information was provided. The issue is closed. |
| **CAR 06.** Please, in Section A.4.2. specify information on soil evaluation and necessity of soil evaluation. | A.4.2 | Soil analysis is necessary to achieve a balanced pH ratio; it is important for achieving the best results in the direct sowing system. If low content of any element is detected in the soil, corresponding fertilizers, including lime, should be applied, to achieve at least average rates of any element at the beginning and ultimately a high level of nutrients in the soil. | The information was provided in Section A.4.2. The issue is closed. |
| **CAR 07.** Please provide specifications of self-propelled sprayer John Deere 5430i. | A.4.2<br>(Refer to Annex 4) | Fuel tank capacity - 4 000 l<br>Sprayer boom - 33 m<br>Engine PowerTech Plus Diesel, Tier III<br>Engine capacity - 6.8 l<br>Engine rating - 169 kW/230 hp | The information is provided. The issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | The information is provided in Section A.4.2. of the PDD version 03. | |
| **CAR 08.** Please provide a link to web-sites of direct sowing machine John Deere 1780 manufacturer. | A.4.2 (Refer to Annex 4) | A link to web-sites of direct sowing machine John Deere 1780 manufacturer is provided in Section A.4.2 of the PDD version 03. | The reference is provided in the relevant section, the issue is closed. |
| **CAR 09.** Please provide information on the model of John Deere tractors, used in the project. | A.4.2 (Refer to Annex 4) | The project activities include the use of John Deere 8530, 8520, 6930, 7930, 8345R, 8360R tractors; these are a third-class traction tractors, designed for manufacturing operations in crop production, feed production and transport work. Detailed information is given in Section A.4.2. of the PDD version 03. | The information is provided, the issue is closed. |
| **CAR 10.** Please, provide the explanation relating to Figure 6 in Annex 4 to the PDD. | | Figure 6 in Annex 4 to the PDD version 03 shows John Deere 7930 tractor. Specifications can be found in Table 5 of Annex 4 to the PDD version 03. | The explanation relating to the Figure is provided, the issue is closed. |
| **CAR 11.** Please provide the project implementation schedule in tabular form with indication of start dates and end dates for each activity and stage. | A.4.2 | The project implementation schedule with indication of start dates and end dates for each activity and stage is provided in Table 6 of the PDD version 03. | The issue is closed, the information was verified. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CAR 12**. In the PDD it is stated that the starting date of the crediting period is January 1, 2007, and in Section A.4.3.1. information on the number of emission reductions is provided for years 2008-2026 Please provide information on GHG emission reductions for 2007. | A.4.3 | Table 7 Section A.4.3.1. of the PDD version 03 indicates that in 2007 a reduction in the amount of 17 293 tons of CO2 equivalent is planned. | The information is provided, the issue is closed. |
| **CAR 13.** In Table (Section A.4.3.1.) that indicates the estimated amount of emission reductions after the first commitment period (2013-2026) duration of the crediting period is stated incorrectly, please, make the necessary corrections. | A.4.3 | Duration of the crediting period after the first commitment period (2013-2026) is 14 years. This information is provided in Section A.4.3.1. of the PDD version 03. | The issue is closed based on necessary changes made. |
| **CAR 14.** In Section A.4.3.1 average annual emission reductions provided by the project during the first commitment period (2008-2012) are stated incorrectly. Please recalculate the relevant data. | A.4.3 | Average annual emission reductions provided by the project during the first commitment period (2008-2012) are 112 172 t CO2eq | The issue is closed. |
| **CAR 15.** In Section B 1. of the PDD the name of the approach, which was used to set the baseline is not correct. Please provide the correct name, according to the Guidance on criteria for baseline setting and monitoring. | 22 | The proposed project uses a JI specific approach to set the baseline scenario and monitoring plan for the JIP. | Relevant corrections were made, the issue is closed. |
| **CAR 16**. Please, provide information about | 23 | The proposed project uses a JI | Necessary information was |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| the basis for baseline calculation. | | specific approach to set the baseline scenario and monitoring plan for the JIP based on "Tool for estimation of change in soil organic carbon stocks due to the implementation of A/R CDM project activities" (Version 01.1.0). Refer to Section B.1. | provided. The issue is closed. |
| **CAR 17.** Please, in Section B.1. provide a detailed theoretical description of the baseline in a comprehensive and transparent manner (formulae). This is a requirement of Guidelines for users of the JI PDD form. | 24 | The detailed theoretical description of the baseline in a comprehensive and transparent manner (formulae) is provided in Section B.1. of the PDD version 03. | Necessary information was provided. The issue is closed. |
| **CAR 18.** Please, provide a graphic figure of change trends of humus content in soil of a field in Section B.1. In the description of the baseline, please track changes in humus content according to measurements. | 24 | The graphic figure of change trends of humus content in soil of field No. 2 (30 ha) of Oksamyt department for baseline and project scenarios is shown in figure 4 of Section B.1. of the PDD version 03. | Corrections are made, the issue is closed. |
| **CAR 19.** Please check the indexes of parameters for setting the baseline | 24 | The indexes of parameters for setting the baseline were verified, relevant corrections were made. | Corrections are made, the issue is closed. |
| **CAR 20.** Description of most parameters listed in Section B.1. does not meet the description of the same parameters listed in Section D of the PDD. Please make necessary corrections. | 24 | Description of parameters listed in Section B.1. was verified and corrected in accordance with Section D. | The issue is closed as corresponding changes are made. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | | |
| **CAR 21.** Some parameter and data identifiers do not correspond to the list of standard variables presented in Annex B of the "Guidance on criteria for baseline setting and monitoring". Please make corresponding corrections of Section B of PDD. | 24 | Corresponding changes are made in accordance with the list of standard variables presented in Annex B of the "Guidance on criteria for baseline setting and monitoring". | The issue is closed as corresponding changes are made. |
| **CAR 22.** Please, in Section B.2. provide reference to average value of credit resources in 2005. | 28 | Reference to average value of credit resources in 2005 is provided in Section B.2. | The reference was provided, the issue is closed. |
| **CAR 23.** Parameter identifier of the discount rate does not comply with the list of standard variables, which are presented in Appendix B to the "Guidelines on criteria for baseline setting and monitoring." Please make the corrections. | 28 | Parameter identifier of the discount rate was changed to *dr*. | Changes were made. The issue is closed. |
| **CAR 24.** In Section B.2. of the PDD it is stated that the real discount rate is adjusted by inflation for the Eurozone. Discount rate can not be adjusted by inflation in the calculation. Please make the necessary corrections. | 28 | Cash flow was adjusted by the inflation index for the Eurozone in 2005. | Necessary corrections are made, the issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CAR 25.** Please provide the calculation of investment returns until 2026 to the determination team, since the implementation of the project activities is planned until 2026. | 28 | Investment analysis of the project was made again according to the comments. See Supporting document 2. | Necessary corrections are made, the issue is closed. |
| **CAR 26.** In Section B.2. it is stated that given the values of expected cost of investments and income from the sale of ERUs the project is viable and will bring enough profit even in case the project is financed with loans; the project must bring a profit, even if the above changes in value of investments take place. The calculation presented in the supporting document indicates the opposite information. | 28 | Given the values of expected cost of investments and income from the sale of ERUs the project isn't viable and will not bring enough profit even in case the project is financed with loans; the project mustn't bring a profit, even if the above changes in value of investments take place. Refer to Section B.2. of the PDD version 03. | Necessary corrections are made, the issue is closed. |
| **CAR 27.** The starting date of the project specified in Section C.1 does not comply with the date specified in Section A.2. Please make necessary corrections. | 34(a) | 22/02/2005 - Contract for the purchase of agricultural equipment (the starting date of the project) | The issue is closed as the changes were made. |
| **CAR 28.** The starting date of the crediting period - is the date when the first emission reductions are expected to be generated. Please clearly set the crediting period boundaries and justify them. | 34(c) | The date on which the first assigned amount units are expected to be generated, namely 01/01/2007, was taken as the starting date of the crediting period. | The boundaries of the crediting period are set in Section C of the PDD. The issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | ERU generation belongs to the first commitment period of 5 years (01/01/2008 – 31/12/2012).<br>The end date of the crediting period is the end date of the commitment period according to the Emission Reductions Purchase Agreement under which the project owner shall transfer to the buyer verified greenhouse gas emission reductions resulting from the project, which is 01/01/2013-31/12/2026.<br>Prolongation of the crediting period beyond 2012 is subject to approval by the Host Party. | |
| **CAR 29.** Please, provide description of parameters that are subject to monitoring procedure according to section D of the PDD. | 36(a) | Description of parameters was verified, necessary corrections were made. | Necessary corrections are made, the issue is closed. |
| **CAR 30.** Please check data units of monitoring data and parameters in Sections D.1.1.1 and D.1.1.3 of the PDD in accordance with the formulae. | 36(b) | Data units of monitoring data and parameters were verified, corrections were made in Sections D.1.1.1 and D.1.1.3 of the PDD. | Corrections are accepted, the issue is closed. |
| **CAR 31**. Please, number all formulae in Section D of the PDD. | 36 (b) (ii) | All formulae in Section D of the PDD version 03 were numbered. | The issue is closed as corresponding changes are made. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CAR 32**. All the values of baseline and project emissions as well as emission reductions under the project are to be stated in tonnes of $CO_2$ equivalent. Please, make the relevant corrections in the formulae provided in Section D. | 36 (b) (ii) | All the values of baseline and project emissions as well as emission reductions under the project are stated in tonnes of $CO_2$ equivalent. Refer to PDD version 03. | The issue is closed as corresponding changes are made. |
| **CAR 33.** Please add information regarding collecting and archiving of data in Section D.1.1. | 36 (b) (iii) | In Sections D.1.1.1. and D.1.1.3. the method of data collection and the way they are stored were stated. | The information is provided. The issue is closed. |
| **CAR 34.** Please check the numbering of tables in Section E of the PDD and make corresponding corrections. | 42 | Numbering of tables was checked and corrected in the PDD version 03. | Corrections are made, the issue is closed. |
| **CAR 35.** Incorrect references relating to description of formulae of project emissions are stated in Section E. | 42 | Incorrect references to Supporting Documents in Section E were corrected. | The issue is closed as corresponding changes are made. |
| **CAR 36**. The project has no approval of Ukraine and country-partisipant. | 19 | To obtain the Letter of Approval the final Determination report that includes this Determination Protocol and the list of sources of Reference Information must be submitted to the State Environmental Investment Agency of Ukraine.<br>A Letter of Approval of other country-partisipant has not been obtained so | **CAR 36** will be closed after the Letters of Approval are issued by the Parties involved. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | far. | |
| **CL 01.** Please provide clarification on the use of chemical and biological method of weed control. | A.4.2 | This project provides for two methods of weed control:<br>Chemical method. This method is based on chemical destruction or inhibition of weed development.<br>Biological method. This method is based on crop protection from a wide range of fungal and bacterial diseases. Detailed information is provided in Section A.4.2 of the PDD version 03. | Clarification is provided. The issue is closed. |
| **CL 02.** Please provide information on replacement of equipment during the project activity. | A.4.2 | Replacement of equipment during the project activity is not planned as this technology meets the modern requirements of agricultural activity. | The issue is closed as necessary explanations are provided. |
| **CL 03.** Please provide information regarding the advisability of special training of personnel. | A.4.2 | The project provides for the use of modern equipment of John Deere production. Operation of this equipment requires appropriate initial training. All staff will be trained to meet the needs at work on new equipment. | The issue is closed based on provided explanations. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| **CL 04.** Please provide explanation of how the control over the population of mound-mice will be exercised. | A.4.2 | The project budget includes the cost of Baktorodentsyd (formulation: loose granules populated by single-purpose murine typhus bacillus Salmonella enteritidis). The preparation is spread in 10-gramme portions within 5-meter radius from rodent habitats. Detailed information is given Section A.4.2 PDD version 03. | The explanation is provided. The issue is closed. |
| **CL 05.** Please provide an explanation of the practicability of the use of John Deere technological equipment in the project activities. | A.4.2 | The use of John Deere machinery will ensure optimization of agricultural equipment operation in the field, reduce the number of technological procedures, which entails lower diesel fuel consumption and lower GHG emissions into the atmosphere. | Explanation is sufficient. The issue is closed. |
| **CL 06.** Please specify whether there are any mandatory government programs or policy which provide for mandatory implementation of No-till technologies by agricultural farms. | 29 (c) | There are no programmes or policies to bind LLC “Beta-Agro-Invest” to implement of No-till technologies; there are no legislative restrictions of the baseline scenario either. The detailed information was provided in Section B. | Explanation is sufficient. The issue is closed. |
| **CL 07.** Please clarify how the information relating to monitoring under the project will be stored. | 36 (b) | Data to be monitored and required for determination and subsequent verification will be archived and stored | Explanation is accepted. The issue is closed. |

| Draft report clarifications and corrective action requests by determination team | Ref. to checklist question in table 1 | Summary of project participants' responses | Determination team conclusion |
|---|---|---|---|
| | | at LLC “Beta-Agro-Invest” for two years after the transfer of emission reduction units generated by the project. | |
| **CL 08.** Please provide clarifications on whether the environmental impact assessment is necessary for this type of project activities according to the legislation of Ukraine. | 48(b) | according to the law of Ukraine "On Environmental Protection" and DBN A.2.2-1-2003 «Composition and content of the materials of environment impact assessment (EIA) for design and construction of plants, buildings and structures» , LLC «Beta-Agro-Invest» is not obliged to carry out EIA development for this type of project. | The issue is closed as sufficient explanation is provided. |