DETERMINATION REPORT "CENTRE TEST" LLC

DETERMINATION OF THE "REALISATION OF A COMPLEX OF ENERGY SAVING ACTIVITIES AT THE JSC "ODESSA PORT PLANT"

REPORT NO. UKRAINE-0145/2010

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BUREAU VERITAS CERTIFICATION

DETERMINATION REPORT

Date of first issue:	Organizational unit:
08/10/2010	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
"Centre TEST" LLC	Viktor Kolesnikov

Summary:

Bureau Veritas Certification has made the determination of the "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" project of "Centre TEST" LLC located in Yuzhne city, Odessa 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 Executive Board, 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 the baseline and monitoring JI specific approach and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.:	Subject Group:
UKRAINE/0145/2010	JI

Indexing terms

Kyoto Protocol, Joint Implementation, Determination, Emission Reductions

Project title:
"Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" project of JSC "Odessa Port Plant"

Work approved by:
Flavio Gomes – Operational manager

Bureau Veritas Certification Holding SAS

Work carried out by:
Oleg Skoblyk – Lead verifier, Team leader
Kateryna Zinevych – Verifier, Team member

Work verified by:
Ivan Sokolov – Internal Technical Reviewer

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Abbreviations

CAR	Corrective Action Request
JI	Joint Implementation
ERU	Emission Reduction Unit
CL	Clarification Request
CO_2	Carbon Dioxide
DOE	Designated Operational Entity
GHG	Green House Gas(es)
I	Interview
IETA	International Emissions Trading Association
MoV	Means of Verification
NGO	Non Government Organization
PCF	Prototype Carbon Fund
PDD	Project Design Document
UNFCCC	United Nations Framework Convention for Climate Change

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1 INTRODUCTION

"Centre TEST" LLC has commissioned Bureau Veritas Certification to determinate its JI project "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" project of JSC "Odessa Port Plant" (hereafter called "the project") at Yuzhne city, Odessa 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 meet the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reduction units (ERUs).

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

1.2 Scope

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

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

1.3 GHG Project Description

Joint Stock Company "Odessa Port Plant" is one of the largest Ukrainian enterprises producing ammonia and urea. The main advantage of JSC "OPP", in comparison to other chemical enterprises, is the export terminal availability to provide chemical products of Ukrainian and the near abroad enterprises lading onto vessels for the export purpose.

The Plant started its activity in 1978 by putting into operation the first stage of the transport complex in the ammonia terminal. The department was built using equipment of "Occidental Petroleum Corporation" USA. In 1978-1979 two ammonia production plants were put into operation. Technological process was developed by "Kellogg Brown & Root" USA. In 1984-1985 two urea production plants were put into operation. The technological process was developed by "Stamicarbon", Netherlands.

Before the project introduction, during 1994-1996 a complex modernization of the process control system was implemented at the plant, equipment supplier was "Honeywell" USA. During 1995-1996 the reconstruction of the ammonia reactors and primary reformers was implemented on the ammonia production plants, as well as the units for extracting hydrogen out of blow gases were put into operation.

The management of JSC "OPP" continuously pays special attention to environmental activities and improvement in power efficiency of the plant. Company specialists constantly take part in seminars, conferences and other events related to energy saving and ecology issues. The Company efforts were repeatedly honored by awards, honourable diplomas, letters of commendation and certificates.

The project history starts when the "JSC "OPP" energy saving program for the period of 1998-2005" was approved at the enterprise. Within the program, the reconstruction of secondary reformer was implemented on the ammonia production plants during 1999-2000, and the engines "Avon" made by "Rolls-Roys", Great Britain were replaces by new more effective gas-turbine engines "DG-90" made by NVP "Mashproekt", Ukraine in the ammonia terminal.

Concerning the opportunity to attract finances for production modernization at the cost of Kyoto mechanisms, the management of JSC "OPP" initiated a joint implementation project of "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" in 2001.

Concerning the opportunity to attract finances for production modernization at the cost of Kyoto mechanisms, the management of JSC "OPP" initiated a joint implementation project of "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" in 2001.

Due to lack of joint implementation project activity, the baseline for JSC "OPP" had lied in maintenance of the existing in the beginning of 2001 process equipment in a due condition, at the same time the natural gas and electric power consumption for ammonia and urea production and as its result greenhouse gases emissions to the atmosphere would stay equal to consumptions and emissions in 2000.

Despite the world economic crisis and shortages in own funds the Company has started "JSC "OPP" energy saving program for the period 2006-2020". Environmental legislation is not yet perfect in Ukraine; so far it is not fully adapted to the current requirements of international environmental bodies and European Union standards. There are no committed state politics in Ukraine requiring to reduce greenhouse gases emissions by chemical industry enterprises.

Project activities are aimed at improvement in power efficiency of the plant by the implementation of 3 subprojects. The main purpose of the planned activities implementation, in order to improve power efficiency of the production in JSC "OPP", is to decrease natural gas volumes burnt for ammonia production and heat energy for manufacturing and heating needs of the plant that will lead to greenhouse gases emissions reduction.

1. **Installation of waste heat boilers for the flue gases** – as a result of this subproject implementation, during 2001-2004 the waste heat boilers were installed, allowing recovering heat of the flue gases from gas-turbine engines. The main purpose of this activity is to decrease natural gas volumes burnt by the boiler shop of JSC "OPP" to generate heat energy for production and heating needs of the plant. The flue gas heat recovery by waste heat boilers will allow to generate steam necessary for urea production and to heat up the water in the network of the plant. This heat energy partly substitutes one that is generated by the boiler shop leading to the reduction of natural gas volumes burnt by the boiler shop for heat energy production.

2. **Modernization of two urea production units** – as a result of this subproject implementation, in 2001 a phased modernization of two urea production units started. The aim of the modernization is to install highly efficient equipment permitting to decrease amounts of heat and electric energy used for urea production, at the same time allowing reducing the amounts of fossil fuel burning for the energy production. Reduction in volume of heat energy for the urea production will lead to the decrease in amounts of heat energy generated by the boiler shop and, as a result, reducing consumption of natural gas by the boiler shop. Reduction of the electric power consumption will permit to reduce its consumption from Ukraine's Electricity Transmission Grid leading to the decrease of the burning volume of fossil fuel for electric energy production by power enterprises in Ukraine.

3. **Modernization of two ammonia production units** – as a result of this subproject implementation, in 2004 a phased modernization of two ammonia production units started. The purpose of modernization is to reduce consumption of natural gas for ammonia production. Natural gas, used for ammonia production, has two functions:

- technological purposes – the natural gas is used directly for the chemical ammonia synthesis providing necessary chemical elements for the process. Data on consumption of technological gas is used to calculate amounts of ammonia produced;

- fuel purposes – this natural gas is necessary to provide required temperatures for chemical synthesis. It is the fuel gas which is planned to reduce in natural gas consumption for ammonia production.
It is possible to reduce natural gas intake in results of power efficient equipment installation allowing reducing the rate of natural gas specific consumption for ammonia production.

1.4 Determination team

The determination team consists of the following personnel:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

Kateryna Zinevych
Bureau Veritas Certification Climate Change Verifier

Ivan Sokolov
Bureau Veritas Certification, Internal 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 Determination and Verification Manual (IETA/PCF). The protocol shows, in a transparent manner, criteria (requirements), means of verification 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 determinator will document how a particular requirement has been determined and the result of the determination.

The determination protocol consists of five tables. The different columns in these tables are described in Figure 1.
The completed determination protocol is enclosed in Appendix A to this report.

Determination Protocol Table 1: Mandatory Requirements			
Requirement	**Reference**	**Conclusion**	**Cross reference**
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (**OK**), a **Corrective Action Request (CAR)** or a **Clarification Request (CL)** of risk or non-compliance with stated requirements. The CAR's and CL's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, 3 and 4 to show how the specific requirement is determined. This is to ensure a transparent determination process.

Determination Protocol Table 2: Requirements checklist				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.

Determination Protocol Table 3: Baseline and Monitoring Methodologies				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements of baseline and monitoring methodologies should be met. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.

Determination Protocol Table 4: Legal requirements				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The national legal requirements the project must meet.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification.

Determination Protocol Table 5: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 2/3**	**Summary of project owner response**	**Determination conclusion**
If the conclusions from the Determination are either a Corrective Action Request or a Clarification Request, these should be listed in this section.	Reference to the checklist question number in Tables 2, 3 and 4 where the Corrective Action Request or Clarification Request is explained.	The responses given by the Client or other project participants during the communications with the determination team should be summarized in this section.	This section should summarize the determination team's responses and final conclusions. The conclusions should also be included in Tables 2, 3 and 4, under "Final Conclusion".

Figure 1 Determination protocol tables

2.1 Review of Documents

The Project Design Document (PDD) submitted by "Center TETST" LTD and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for Completing the Project Design Document (JI-PDD), Approved methodology, Kyoto Protocol, Clarifications on Determination Requirements to be Checked by a Designated Operational Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests "Center TETST" LTD revised the PDD to the version 02 and resubmitted it on 25/09/2010.

The determination findings presented in this report relate to the project as described in the PDD version 01.

2.2 Follow-up Interviews

On 22/09/2010 Bureau Veritas Certification performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of JSC "OPP" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
JSC "Odessa Port Plant" (JSC "OPP"), LOCAL Stakeholder, "Centre TEST" LTD	➢ Additionality of the project, ➢ Emission factor of the project, ➢ EIA and its approval, ➢ Project design, ➢ Consulting process for stakeholder's comments , ➢ Approval status by the host country, ➢ Applicability of methodology, ➢ Monitoring Plan, ➢ QA issues, ➢ Baseline calculations.

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.

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

3 DETERMINATION FINDINGS

In the following sections, the findings of the determination are stated. The determination findings for each determination subject are presented as follows:

1) The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are summarized. A more detailed record of these findings can be found in the Determination Protocol in Appendix A.
2) Where Bureau Veritas Certification had identified issues that needed clarification or that represented a risk to the fulfillment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are

stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 31 Corrective Action Requests and 6 Clarification Requests.

3) The conclusions for determination subject are presented.

3.1 Project Design

The project is expected to be in line with host-country specific JI requirements because it foresees improvement of power efficiency of the production in JSC "OPP", decreasing natural gas volumes burnt for ammonia production and heat energy for manufacturing and heating needs of the plant that will lead to greenhouse gases emissions reduction

The Project Scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Emissions Reductions Units (ERUs) under the JI, based on an analysis, presented by the PDD, of investment, technological and other barriers, and prevailing practice.

The project design is sound and the geographical (Yuzhne city, Odessa region, Ukraine) and temporal (17 years) boundaries of the project are clearly defined.

All the CARs (CAR 1- CAR 11, CAR 27), CL (CL 1) that relate to this section and their resolution are presented in the Table 5 below.

3.2 Baseline and Additionality

The "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" project uses JI Specific approach.

The baseline for this project was chosen according to "Guidance on criteria for baseline setting and monitoring" (version 02)[1]. Correspondently to the document request, the selection of the baseline can be stated on a certain approach that is used only for a specific project of joint implementation, or on a standard approach with a use of methodologies including small-scaled that are approved by the Joint Implementation Supervisory Committee.

Since this project consists of several subprojects that are aimed at different key factors allowing reducing greenhouse gas emission, the baseline was defined on the basis of certain approach. According to "Guidance on criteria for baseline setting and monitoring" (version 02) for such projects, based on the certain approach, specific methodological parts can be included into the baseline determination that are approved by the Joint Implementation Supervisory Committee. For the baseline determination of this project, specific elements of consolidated

methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2)[2] were use. One out of three subprojects, namely "Installation of waste heat boilers for the flue gases", completely conforms to the object of this methodology, therefore, to determine basic emissions of this subproject, the indicated methodology requirements were used. Subproject "Modernization of two urea production units" presumes calculation of the heat and electric energy consumption for urea production, and methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2) states the requirements for calculation of the heat and electric energy amounts, therefore, separate parts of the indicated methodology were used for this subproject.

Baseline selection established on the most reliable among the alternative scenarios that are acceptable for the project participants and are able to secure output production quality, without reducing the produced volume, and meets the requirements of the effective legislation in Ukraine.

The possible alternative baseline scenarios are the following:

(a) Proposed project activity without JI;
(b) Extension of current situation at the plant without activities to improve power efficiency;
(c) The boiler shop at the plant uses alternative type of fuel, different from natural gas, for example, biomass for heat energy production;
(d) Another use of the flue gases heat of gas-turbine engines excluding project activities.

The baseline options considered do not include those options that:

- do not comply with legal and regulatory requirements; or
- depend on key resources such as fuels, materials or technology that are not available at the project site.

The most economically attractive alternative among the alternatives mentioned above has been selected as the baseline scenario, since such alternative is not expected to face any prohibitive barriers that could have prevented it from being taken up as the project activity. After the fulfilling the three steps, only one realistic scenario was chosen, i.e. continuation of the current situation at the plant without modernization according to the project (alternative (b)) is the baseline of the joint implementation project. The alternative (d) was proved unrealistic at the step 1. The alternatives (c) and (d) were set aside at step 3, as there are too many restrictions (technical and financial) for their implementation.

All the CARs (CAR 12 - CAR 26), CLs (CL 2, 3) that relate to this section and their resolution are presented in the Table 5 below.

3.3 Monitoring Plan

The Project uses JI Specific approach. Refer discussions on the validity of the methodology at section 3.2 above.

The monitoring plan for this project was chosen according to the"Guidance on criteria for baseline setting and monitoring" (version 02). In accordance with the requirements of this document, the choice of the monitoring plan was based on the specific approach, applied only for this particular joint implementation project, as it consists of several subprojects aimed at different key factors allowing greenhouse emissions reduction. Separate elements of approved consolidated methodology ACM0012 "Combined main methodology for energy waste greenhouse emissions reduction in innovative projects" (version 3.2) were used to set the monitoring plan for this project.

The monitoring plan, accepted for this joint implementation project, is aimed to ensure all data necessary for the determination of emission level according to the baseline and project scenario, and corresponding to the scope of greenhouse reduction due to this joint implementation project. The information about this project is set above.

The following documentations were used to establish the monitoring plan and emission level according to the baseline and project scenario:

- Subproject "Installation of the waste heat boilers for flue gases" - the approved consolidated methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2).
- Subproject "Modernization of two urea production units" the approved consolidated methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2) and "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" (version 01)[1].

Subproject "Modernization of two ammonia production units" - "National Cadaster of Ukraine".

All the CARs (CAR 28 - CAR 31), CLs (CL 4, 5 and 6) that relate to this section and their resolution are presented in the Table 5 below.

3.4 Calculation of GHG Emissions

As per JI specific approach used, the baseline emission sources considered are emissions during a year according to the baseline of "Installation of waste heat boilers for flue gases" subproject, emissions during a year according to the baseline of "Modernization of two urea

production units" subproject, emissions during a year according to the baseline of "Modernization of two ammonia production units" subproject.

As required under JI Specific approach, the baseline emissions are calculated by:

$$BE_y = BE_{boilers,y} + BE_{urea,y} + BE_{ammonia,y},$$

where:

BE_y – total emissions during a year according to the baseline, t $CO_{2\,e}$;
$BE_{boilers,y}$ – emissions during a year according to the baseline of "Installation of waste heat boilers for flue gases" subproject, t $CO_{2\,e}$;
$BE_{urea,y}$ –emissions during a year according to the baseline of "Modernization of two urea production units" subproject, t $CO_{2\,e}$;
$BE_{ammonia,y}$ – emissions during a year according to the baseline of "Modernization of two ammonia production units" subproject, t $CO_{2\,e}$.

The detailed algorithms are described later under section D.1.1.4 of the PDD version 2.0.

As required under JI Specific approach, the projectline emissions are calculated by:

$$PE_y = PE_{boilers,y} + PE_{urea,y} + PE_{ammonia,y},$$

where:
PE_y – total emission levels during a year according to the project scenario, t $CO_{2\,e}$;
$PE_{boilers,y}$ – emission level during a year according to the project scenario of subproject "Installation of waste heat boilers for flue gases", t $CO_{2\,e}$;
$PE_{urea,y}$ – emission level during a year according to the project scenario of subproject "Modernization of two urea production units", t $CO_{2\,e}$;
$PE_{ammonia,y}$ – emission level during a year according to the project scenario of subproject "Modernization of two ammonia production units", t $CO_{2\,e}$.

The detailed algorithms are described later under section D.1.1.2 of the PDD version 2.0.

With reference to this methodology, project does not lead to any leakage. No leakage is expected since energy sources consumption is decreasing under the project activities, according to the baseline. The leakage from gas-transport system of Ukraine is expected to reduce during the implementation of the project. According to the requirements of the "Guidance on criteria for baseline setting and monitoring" (version 02)

conservative approach is used for this project, where the leakage reduction is not applied for emission calculation.

The estimated annual average of approximately 224230 tCO2e over the crediting period and 304830 tCO2e over the post Kyoto crediting period of emission reduction represents a reasonable estimation using the assumptions given by the project.

No open issues were found.

3.5 Environmental Impacts

The suggested interferences in the existing production scheme will make positive environmental impact due to reduction of energy sources consumption for the production needs which will result in the decrease of greenhouse emissions into the atmosphere.

Emissions reduction will take place due to this project realization, namely:

- the subproject "Installation of waste heat boilers for the flue gases" will allow to reduce amount of natural gas burnt for heat energy generation in boiler shop of the plant, thus decreasing greenhouse emissions into the atmosphere;

- the subproject "Modernization of two urea production units" will allow to reduce specific electric and heat energy consumption for production of 1 ton of urea. The decrease of specific heat energy consumption will result in reduction of natural gas burnt in boiler shop for heat energy generation, thus decreasing greenhouse emissions into the atmosphere. The reduction of specific electric power consumption will result in decrease of electric power supplied from Electricity Transmission Grid of Ukraine, reducing the amount of fossil fuel for electric power generation at power plants of Ukraine;

- the subproject "Modernization of two ammonia production units" will allow to reduce natural gas consumption for ammonia production, thus decreasing greenhouse emissions into the atmosphere.

Emissions reduction achieved due to this project implementation will have an impact on the environment of Ukraine but does not influence greenhouse gases emissions abroad.
According to the requirements of relevant state services, the JSC "OPP" reports on ecological characteristics from time to time. Under the order of Ministry for environmental protection of Ukraine №108 dated 09.03.2006 the Administration of ecological resources in Odessa region issued to the JSC "OPP" the permit for emissions after the scope of pollutant emissions was justified according to the instructions approved by this order.

The realization of this project has facilitated the reduction of pollutant emissions from stationary sources. According to the issued permit of the Administration of ecological resources in Odessa region the environmental impact is not sufficient, but generally positive.

According to the requirements of the Ukrainian legislation in force, namely the law of Ukraine "On environmental protection" №1264-XII[1] dated 25.06.1991 and ДБН А.2.2-1[2], the implementation of this project does not demand ecological assessment and thereafter elaboration of "Structure and contents of the environmental impact assessment (EIA) materials during design and construction of enterprises, buildings and facilities"

No open issues were found.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Determination of JI projects, the DOE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

Bureau Veritas Certification published the project documents on the Bureau Veritas website (http://bureauveritas.com.ua) on 12/08/2010 and invited comments within 10/09/2010 by Parties, stakeholders and non-governmental organizations.

Comments were not received.

5 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" 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 analysis of

investment and technological barriers to determine that the project activity itself is not the baseline scenario.

By decrease natural gas volumes burnt for ammonia production and heat energy for manufacturing and heating needs of the plant, the project is likely to result in reductions of GHG emissions. An analysis of the investment and technological barriers demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation (version 02) 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.

6 REFERENCES

Category 1 Documents:
Documents that relate directly to the GHG components of the project.

/1/ PDD "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" version 1.0 dated 18th of August 2010.

/2/ PDD "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" version 2.0 dated 25th of September 2010.

/3/ Emission Reductions Calculation Excel Spreadsheet

/4/ NPV and IRR Calculation Excel Spreadsheet

/5/ Guidelines for Users of the Joint Implementation Project Design Document Form/Version 04, JISC.

/6/ Glossary of JI terms/Version 01, JISC.

/7/ Guidance on criteria for baseline setting and monitoring. Version 01. JISC.

/8/ Tool for the demonstration and assessment of additionality. Version 05.2.

/9/ Reduction of natural gas leakage from compressors and shut-off stations/AM0023, Version 03.

/10/ A Letter of Endorsement №1149/23/7 of National Environmental Investment Agency dated 02.08.2010 p

Category 2 Documents:

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

№ п/п	Назва документу
1.	Technical-productional Report ЦПрА December 2001 (yearly)
2.	Technical-productional Report ЦПрА December 2002 (yearly)
3.	Technical-productional Report ЦПрА December 2003 (yearly)
4.	Technical-productional Report ЦПрА January 2004
5.	Technical-productional Report ЦПрА February 2004
6.	Technical-productional Report ЦПрА March 2004
7.	Technical-productional Report ЦПрА April 2004
8.	Technical-productional Report ЦПрА May 2004
9.	Technical-productional Report ЦПрА June 2004
10.	Technical-productional Report ЦПрА July 2004
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19.	Technical-productional Report ЦПрА April 2005
20.	Technical-productional Report ЦПрА May 2005
21.	Technical-productional Report ЦПрА June 2005
22.	Technical-productional Report ЦПрА July 2005
23.	Technical-productional Report ЦПрА August 2005
24.	Technical-productional Report ЦПрА September 2005
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75.	Technical-productional Report ЦПрА December 2009
76.	Technical-productional Report ЦПрК December 1999 (yearly)
77.	Technical-productional Report ЦПрК December 2000 (yearly)
78.	Technical-productional Report ЦПрК December 2001 (yearly)
79.	Technical-productional Report ЦПрК January 2004
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81.	Technical-productional Report ЦПрК March 2004
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220.	Technical-productional Report ЦПА October 2009
221.	Technical-productional Report ЦПА November 2009
222.	Technical-productional Report ЦПА December 2009
223.	Template of the rapport of the shift head ЦПрА
224.	Honored diploma of the Odessa city hall
225.	Diploma of the Industry Academy to Yakushyn O.O.
226.	Certificate of the participation at «TOP-ENERGYEFFICIENCY»
227.	Diploma of the contest winner «Lider FEC-2006»
228.	Honored diploma of the Odessa city hall
229.	Protocol of the exame committee dated 27.09.2001 № 114 a/01
230.	Protocol of the exame committee dated 27.09.2001 № 114 a/01
231.	Protocol №164 of the enterprise meeting dated 30.09.2009
232.	Protocol №179 of the labor safety committee meeting dated 28.09.2005
233.	Protocol №180 of the labor safety committee meeting dated 28.09.2005
234.	Protocol №216 of the labor safety committee meeting dated 06.10.2004
235.	Protocol №217 of the labor safety committee meeting dated 06.10.2004
236.	Protocol №164 of the enterprise meeting dated 30.09.2009
237.	Passport ТСП 1287 1Т2324
238.	Passport STD 120 F2004
239.	Passport STG 674 P2126
240.	Photo STD 120 F2004
241.	Photo STG 674 P2126
242.	Photo ТСП 1287 1Т2324
243.	Passport ТСП 1287 2Т2324
244.	Passport STD 120 F2004
245.	Passport STG 674 P2126
246.	Photo STD 120 F2004
247.	Photo STG 674 P2126
248.	Photo ТСП 1287 2Т2324
249.	Passport ST-930 F2037 (BOT-6)
250.	Passport STG-94LR-A10 P2122 (BOT-6,7)
251.	Passport ТКХ-2088 1Т2391 (BOT-6)
252.	Photo ST-930 F2037 (BOT 6)
253.	Photo ТКХ-2088 1Т2391 (BOT 6)
254.	Passport ST-930 F2037 (BOT-7)
255.	Passport ТКХ-2088 2Т2391 (BOT-7)
256.	Photo ТКХ-2088 2Т2391 (BOT 7)
257.	Photo STG-94LR-A10 P2122 (BOT 6,7)
258.	Passport STD-924 WP 050
259.	Passport STG-94L WP 040(A)
260.	Passport ТСП 8040Р WT 060A

261.	Photo ТСП 8040Р WT 060A
262.	Photo STD-924 WP 050
263.	Photo STG-94L WP 040(A)
264.	Passport STG-94LR WP 040 B
265.	Passport STD-924 WP 050
266.	Passport ТСП 8040Р WT 060B
267.	Photo STG-94LR WP 040 B
268.	Photo STD-924 WP 050
269.	Photo ТСП 8040Р WT 060B
270.	Passport STD-930 WP 120
271.	Passport STG 94LR WP 080
272.	Passport ТСП 8040Р WT 080
273.	Photo STD-930 WP 120
274.	Photo STG 94LR WP 080
275.	Photo ТСП 8040Р WT 080
276.	Passport STD-930 WP 120
277.	Passport STG 94LR WP 080
278.	Passport ТСП 8040Р WT 080
279.	Photo STD-930 WP 120
280.	Photo STG 94LR WP 080
281.	Photo ТСП 8040Р WT 080
282.	Passport Флоуктек-ТМ basic
283.	Passport Флоуктек-ТМ reserved
284.	Passport CTD 924 (ВОГ-6)
285.	Passport CTD 924 (ВОГ-7)
286.	Photo CTD 924 (ВОГ-6)
287.	Photo CTD 924 (ВОГ-7)
288.	Passport CTD 924 (ВОГ-8)
289.	Passport CTD 924 (ВОГ-9)
290.	Photo CTD 924 (ВОГ-8)
291.	Photo -1 CTD 924 (ВОГ-9)
292.	Photo -2 CTD 924 (ВОГ-9)
293.	Passport of the electricity meter AIR-3-AL-C8-T plant № 01 005 047
294.	Protocol of the checking electricity meter AIR-3-AL-C8-T dated 19.12.2008
295.	Technical passport of the checking electricity meter AIR-3-AL-C8-T dated 3.04.2009
296.	Photo 1 AIR-3-AL-C8-T BOE-1
297.	Photo 2 AIR-3-AL-C8-T BOE-1
298.	Photo 3 AIR-3-AL-C8-T BOE-1
299.	Passport of the electricity meter AIR-3-AL-C8-T plant № 01 005 043
300.	Protocol of the checking electricity meter AIR-3-AL-C8-T dated 17.11 2008
301.	Technical passport of the checking electricity meter AIR-3-AL-C8-T dated02.04.2009
302.	Photo 1 AIR-3-AL-C8-T BOE-2

303.	Photo 2 AIR-3-AL-C8-T BOE-2
304.	Photo 3 AIR-3-AL-C8-T BOE-2
305.	Attestation Certificate of the laboratory ПСК ОПЗ dated 15.07.2010 registration number 06544-5-3-102-ВЛ issued by Ministry of Industrial Politics of Ukraine
306.	Letter of Endorsement JI dated 02.08.2010 №1149/23/7 NEIA
307.	Order JSC «OPP» dated 19.07.2010 № 282 On the monitoring group creation
308.	Article in the newspaper «Comersant» dated 15.12.2009
309.	Report JSC «OPP» on the atmospheric air for 2009 (Form 2 ТП air)
310.	Methodology of the ammonia production
311.	Methodology of the urea production
312.	Permit №453.01.51-45.21.1 on the start of works of the technical department Mizhnnaglyadohoronpratsi dated 14.11 2001 Letter of the Land management Derzhnaglyadohoronpratsi dated 26.11 2001 №147 (1_1 start)
313.	Act of the working commission on the acceptance in the operation «utilization boiler unit КУП-2500М and workshop communications dated 28.02.2002 (1_1_end)
314.	Protocol of technical specialist meeting of the OPP dated 25.03.2003 (1_2 start)
315.	Protocol of technical specialist meeting of the OPP dated 25.03.2004 (1_2_end)
316.	Protocol of technical specialist meeting of the OPP dated 18.01.2001 (2_1 start)
317.	Act of guarantee trial of the equipment dated 1.10.2002 г. (2_1_end)
318.	Protocol of technical specialist meeting of the OPP on commissioning complect of the inner devices dated 13.12.2002 (2_2 start)
319.	Act of guarantee trial of the equipment dated 3.10.2003 г. (2_2_end)
320.	Protocol of technical specialist meeting of the OPP dated 12.07.2002 (2_3 start)
321.	Act of installation dated 15.07.2002 г. (2_3_ end)
322.	Protocol of technical specialist meeting of the OPP dated 9.12.2002 (2_4 start)
323.	Акт о качестве монтажа сосуда (апарата) от 21.07.03 г. (2_4_ end)
324.	Act of installation dated 15.07.2002 г. (2_3_ end) 21.07.2003 г. (2_4_ end)
325.	Protocol of technical specialist meeting of the OPP dated 24.03.2005 г. №16 (2_5-2_6_start)
326.	Protocol of technical specialist meeting of the OPP dated 14.10.2008 г (2_5_end)
327.	Protocol of technical specialist meeting of the OPP dated 5.12.2006 г. (2_6_end)
328.	Protocol of technical specialist meeting of the OPP dated 9.01.2004 г. (3_1 start)
329.	Act of acceptance dated 15.11.2004 (3_1 end)

330.	Protocol of technical specialist meeting of the OPP dated 2.12.2004 г. (3_2 start)
331.	Act of acceptance dated 14.11.2005 (3_2 end)
332.	Protocol of technical specialist meeting of the OPP dated 6.02.2004 г. (3_3 start)
333.	Act of acceptance dated 20.11.2004 (3_3 end)
334.	Protocol of trial dated 19.11.2004 (3_3 end)
335.	Protocol of technical specialist meeting of the OPP dated 20.12.2004 г. № 75 (3_4 start)
336.	Act of acceptance dated 4.11.2005 (3_4 end)
337.	Protocol of trial dated 4.11.2005 г. (3_4 end)
338.	Protocol of technical specialist meeting of the OPP dated 20.01.2005 г. (3_5 start)
339.	Act of acceptance dated 25.12.2006 (3_5 end)
340.	Protocol of technical specialist meeting of the OPP dated 14.02.2008 г. № 4/1 (3_6 start)
341.	Act of acceptance dated 25.11.2009 (3_6 end)
342.	Protocol of technical specialist meeting of the OPP dated 23.12.2005 г. № 88 (3_7, 3_8 start)
343.	Act of acceptance dated 26.06.2008 г. (3_7 end)
344.	Act of acceptance dated 30.12.2008 г. (3_8 end)
345.	Protocol of technical specialist meeting of the OPP dated 20.05.2008 г. (3_9 start)
346.	Act of acceptance dated 14.04.2010 (3_9 end)
347.	Passport of the splashcatcher 403F (п 3..2)
348.	Passport of the splashcatcher 403F (п 3.1)
349.	Passport of the condensator E 303A (п 2.5.)
350.	Passport of the condensator E 303A (п 2.6.)
351.	Passport КУП-2.6-1.8-230 (п 1.2)
352.	Passport КУП 2500М (п 1.1)
353.	Passport for internal equipment (п 2.1)
354.	Passport for internal equipment (п 2.2)
355.	Passport reactor of flaming gasses burning (п 2.3)
356.	Passport reactor of flaming gasses burning (п 2.4)
357.	Passport reservoir (п 3.3.)
358.	Passport reservoir (п 3.4.)
359.	Passport separator 404 F (п.3.1)
360.	Passport separator 404 F (п.3.2)
361.	Passport separator S 201 (п.2.6)
362.	Passport heat exchanger 401C (п 3.1)
363.	Passport heat exchanger 401C (п 3.2)
364.	Passport heat exchanger E 751A(п 2.5)
365.	Passport heat exchanger E 751A (п 2.5)
366.	Passport stabilization К-2 (п 2.6)

367.	Passport stabilization К-1(п 2.5)
368.	Compressor documentation (п.3.7.)
369.	Compressor documentation (п.3.8.)
370.	Documentation on the reforming furnace (п.3.9.)

Persons interviewed:

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

/1/	Fedchun Oleksandr – Head Engineer;
/2/	Maksymenko Vladyslav – Head Metrologist;
/3/	Sisoyev Oleksiy – Head of Environmental and Labor Safety Department
/4/	Vakeryak Volodymyr – Head of the Economics Department;
/5/	Shnaydruk Mykola – Deputy Head of Productional-Technical Department;
/6/	Dyshlevoy Oleksandr – Deputy Head of the Electrical workshop;
/7/	Gorlovych Mykola – Head of the Training Departement;
/8/	Korsun Oleg – head of the Innovation sector;
/9/	Kiminchidzhi Stepan – Member of the Yuzhne City Hall Executive Board;
/10/	Sevastyanov Valeryi – deputy of the Yuzhne City Hall – Head of the Deputy Commission on the deputy activity, Procedure, local administration development, legal rights and mass media;
/11/	Ablyamitov Nusret – deputy of Yuznhe City Hall – Head of the Deputy Commission on the common property management, construction, transport and connection;
/12/	Khalabuzar Victor – representative of the «RETON SOLUTION LLP», project manager

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JI PROJECT VALIDATION PROTOCOL

Table 1 Mandatory Requirements for Joint Implementation (JI) Projects

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
1. The project shall have the approval of the Parties involved	Kyoto Protocol Article 6.1 (a)	Letters of approval will be issued by the Parties involved upon submission of Determination Report with CARs and CLs clarified except CAR1. Remaining CAR1 will be closed after the issuance of the LoA by the Parties involved.	Table 2, Section A.5
2. Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur	Kyoto Protocol Article 6.1 (b)	OK	Table 2, Section B
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7	Kyoto Protocol Article 6.1 (c)	Article 5 requires "…Annex I Parties to having in place, no later than 2007, national systems for the estimation of greenhouse gas emissions by sources and removals by sinks." Article 7 requires "… Annex I Parties to submit annual	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		greenhouse gas inventories, as well as national communications, at regular intervals, both including supplementary information to demonstrate compliance with the Protocol". The Netherlands has submitted its Initial Report on 21 December 2006 (http://unfccc.int/national_reports/initial_reports_under_the_kyoto_protocol/items/3765.php).	
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3	Kyoto Protocol Article 6.1 (d)	OK	
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects	Marrakech Accords, JI Modalities, §20 \	Both countries have designated their Focal Points. National guidelines and procedures for approving JI projects have been published. Contact data in Ukraine:. **National Environmental Investment Agency of Ukraine**	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		35 Urytsky Str., Kyiv, P.O. 03035 Phone: +380 44 594 91 11 Fax: +380 44 5949115 Email: info.neia@gmail.com National guidelines and procedures for the approval of JI projects are available (www.neia.gov.ua) **Serhiy Orlenko,** Head of the National Environmental Investment Agency of Ukraine Tel.: +380 44 594 9111 Fax: +380 44 594 9115 E-mail: slorlenko@gmail.com **Global Carbon Markets** Departement of the Energetics and Climate Change 3 Whitehall Place SW1A 2HD London United Kingdom of Great Britain and Northern Ireland	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
		Chris Dodwell **Head of the International Departement of Climate Change** Tel: +44 0300 068 5440 E-mail: jifp@decc.gsi.gov.uk	
6. The host Party shall be a Party to the Kyoto Protocol	Marrakech Accords, JI Modalities, §21(a)/24	The Ukraine is a Party (Annex I Party) to the Kyoto Protocol and has ratified the Kyoto Protocol at April 12th, 2004.	
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts	Marrakech Accords, JI Modalities, §21(b)/24	In the Initial Report submitted by Ukraine on 29. Dec. 2006 the AAUs are quantified with: 925 362 174.39 (x 5) = 4 626 810 872 tCO2-e	
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4	Marrakech Accords, JI Modalities, §21(d)/24	The designed system of the national registry has been described in the Initial Report mentioned above	
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination	Marrakech Accords, JI Modalities, §31	OK	
10. The project design document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments	Marrakech Accords,	The PDD will be made publicly available trough	

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
	JI Modalities, §32	UNFCCC website.	
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the Host Party, an environmental impact assessment in accordance with procedures as required by the Host Party shall be carried out	Marrakech Accords, JI Modalities, §33(d)	OK	Table 2, Section F
12. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B
13. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B
14. The baseline methodology shall exclude to earn ERUs for decreases in activity levels outside the project activity or due to force majeure	Marrakech Accords, JI Modalities, Appendix B	OK	Table 2, Section B
15. The project shall have an appropriate monitoring plan	Marrakech Accords, JI Modalities, §33(c)	OK	Table 2, Section D
16. A project participant may be: (a) A Party involved in the JI project; or (b) A legal entity authorized by a Party involved to	Glossary of Joint Implementation	See CAR1. Conclusion is pending until	Table 2, Section A

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference to this protocol
participate in the JI project.	Terms, Version 01	Letters of Approval authorizing the project participants by Parties involved will be issued.	

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of the project					

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.1 Title of the project					
A.1.1. Is the title of the project presented?		DR	Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant"	OK	OK
A.1.2. Is the current version number of the document presented?		DR	Version 01. CAR 2. Please change the version according to the date change.	CAR 2	OK
A.1.3. Is the date when the document was completed presented?		DR	PDD is dated 29th of June 2010 CAR 3. Please change the date according to the changes to the PDD.	CAR 3	OK
A.2. Description of the project					
A.2.1. Is the purpose of the project included?		DR I	The main purpose of the planned activities implementation, in order to improve power efficiency of the production in JSC "OPP", is to decrease natural gas volumes burnt for ammonia production and heat energy for manufacturing and heating needs of the plant that will lead to greenhouse gases emissions reduction.	OK	OK
A.2.2. Is it explained how the proposed project reduces greenhouse gas emissions?		DR	See section A.2. of the PDD. CAR 4. Please provide description of the baseline scenario. CAR 5. Please provide description of the projectline scenario. CAR 6. Please provide description of the project history. CAR 7. Please provide the proof that JI incentive was taken into account at the	CAR 4, CAR 5, CAR 6, CAR 7	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			decision making stage.		
A.3. Project participants					
A.3.1. Are project participants and Party(ies) involved in the project listed?		DR	Ukraine (Host Party): JSC "OPP" "Center TEST" LLC Great Britain: "RETON SOLUTION LLP" Company	OK	OK
A.3.2. Are project participants authorized by a Party involved?		DR	See Section A.3. of the PDD	OK	OK
A.3.3. The data of the project participants are presented in tabular format?		DR	See Section A.3. of the PDD	OK	OK
A.3.4. Is contact information provided in annex 1 of the PDD?		DR	See Annex 1 of the PDD	OK	OK
A.3.5. Is it indicated, if it is the case, if the Party involved is a host Party?		DR	Ukraine (Host Party)	OK	OK
A.4. Technical description of the project					
A.4.1. Location of the project activity					
A.4.1.1. Host Party(ies)		DR	Ukraine	OK	OK
A.4.1.2. Region/State/Province etc.		DR	Odessa region	OK	OK
A.4.1.3. City/Town/Community etc.		DR	Yuzhne city	OK	OK
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)		DR	See Section A.4. of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.4.2. Technology(ies) to be employed, or measures, operations or actions to be implemented by the project					
A.4.2.1. Does the project design engineering reflect current good practices?		DR	See Section A.4.2 of the PDD CAR 8. Please provide technological description of the heat utilization process by the waste heat boilers for the flue gases. CAR 9. Please provide more transparent description of the urea production process. CAR 10. Please provide more transparent description of the ammonia production. CL 1. Please clarify what is the cause for the severe reduction of specific electric power consumption for urea production at the Figure 6. CAR 11. Please provide implementation schedule of the project.	CAR8, CAR 9, CAR10, CAR11, CL 1	
A.4.2.2. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?		DR	See Section A.4.2. of the PDD	OK	OK
A.4.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?		DR	During project implementation equipment manufacturer and equipment itself can be substituted depending on the appearance on the market more efficient and up to date technologies and equipment.	OK	OK
A.4.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?		DR	See Section A.4.2. of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
A.4.2.5. Does the project make provisions for meeting training and maintenance needs?		DR	See Section A.4.2. of the PDD. To minimize potential problems related to the lack of experience, specialists of the company regularly take extension training courses, participate in industry seminars and conferences.	OK	OK
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.4.3.1. Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)		DR	See Section A.4.3. of the PDD	OK	OK
A.4.3.2. Is it provided the estimation of emission reductions over the crediting period?		DR	Yes, the estimation of emission reductions over the crediting period is provided. Refer to Section A.4.3.1.	OK	OK
A.4.3.3. Is it provided the estimated annual reduction for the chosen credit period in tCO_2e?		DR	Estimated annual reduction for the chosen credit period is 221229 tCO_2e.	OK	OK
A.4.3.4. Are the data from questions A.4.3.2 to A.4.3.4 above presented in tabular format?		DR	Yes, see Section A.4.3.1.	OK	OK
A.5. Project approval by the Parties involved					
A.5.1. Are written project approvals by the Parties involved attached?		DR	See CAR 1. There is no sign of project approval by the Parties involved. Issuance of the LoAs is pending.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
B. Baseline					
B.1. Description and justification of the baseline chosen					
B.1.1. Is the chosen baseline described?		DR	See Section B.1 of the PDD Continuation of the current situation at the plant without modernization according to the project is the baseline of the joint implementation project. The other alternatives 1were set aside, as there are too many restrictions (technical and financial) for their implementation.	OK	OK
B.1.2. Is it justified the choice of the applicable baseline for the project category?		DR	Yes, see Section B.1 of the PDD. CAR 12. Please justify the approach chosen to define baseline scenario.	CAR 12	
B.1.3. Is it described how the methodology is applied in the context of the project?		DR	See Section B.1 of the PDD CAR 13. Please provide the justification of the methodology selection.	CAR 13	
B.1.4. Are the basic assumptions of the baseline methodology in the context of the project activity presented (See Annex 2)?		DR	See Section B.1 of the PDD	OK	OK
B.1.5. Is all literature and sources clearly referenced?		DR	CAR 14. Please provide the provide reference for all sources and literature. CAR 15. Please correct the reference to the Emission factor for Electricity Transmission Grid of Ukraine form Alchevsk coke plant to the Global Carbon BV project and please define the year for which data from National Cadastre of Ukraine were taken. CAR 16. Please provide chosen years and	CAR14, CAR15, CAR16	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			data for baseline for yeah parameter since site visit reflected that for the different elements of the project different years of the baseline calculation are taken.		
B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the JI project					
B.2.1. Is the proposed project activity additional?		DR	See Section B.2 of the PDD CAR 17. All calculations in the financial model are made in EUR at the same the developer is utilizing the integral rate for Ukrainian banks loans as the benchmark. Please note that this sort of benchmark is not applicable for the present model. As all calculations are made in foreign currency the rates for foreign currency loans shall be applied. The relevant statistics is available from the National Bank web site www.bank.gov.ua. For example the average bank interest rate in foreign currencies for 2009 is 11,4%. CAR 18. Guidance for the Assessment of Investment analysis (hereinafter referred as the Guidance) in the article 4 requires the fair value of the assets at the end of the end of assessment period to be included in the cash flow for the final year. Please make the relevant corrections to the model.	CAR17, CAR18, CAR19, CAR20, CAR21, CAR22, CAR23, CL2	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			CAR 19. Financial model shall refer to all major inputs such as energy tariffs, price of natural gas, EUR/USD exchange rates for each year. CAR 20. Please note that according to the Additionality Tool the financial model shall be provided with all formulas clearly readable in order user could reproduce the results of calculations. CL 2. Please indicate whether tariffs, costs, prices and investment values are indicated with VAT included or not. CAR 21. Financial model at present does not account for inflation which is unacceptable for long-term projections like in this case. CAR 22. Investment costs are allocated for one single year while in reality the energy efficiency program is gradually implemented during 10 years period. Please distribute the investment costs by relevant project years in accordance with fact and realistic plan. CAR 23. Unfortunately the sensitivity analysis is missing. Please submit sensitivity analysis calculations as required by the Additionality Tool.		
B.2.2. Is the baseline scenario described?		DR	See Section B.2 of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
B.2.3. Is the project scenario described?		DR	See Sections B.1 and B.2 of the PDD		
B.2.4. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario included?		DR	See Section A.2.2 above. CAR 24. Please fill in the gaps on the p.26	CAR 26	
B.2.5. Is it demonstrated that the project activity itself is not a likely baseline scenario?		DR	It is demonstrated that the project activity itself is not a likely baseline scenario.	OK	OK
B.2.6. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?		DR	There are no such projects as implementation of energy saving measures during urea and ammonia production in the chemical industry so national regulation is no applicable.	OK	OK
B.3. Description of how the definition of the project boundary is applied to the project activity					
B.3.1. Are the project's spatial (geographical) boundaries clearly defined?		DR	Yes, project boundaries are defined in the Section B.3. of the PDD. CL 3. Please clarify why the table that describes project boundaries project and baseline scenarios are named the same.	CL 3	
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline					
B.4.1. Is the date of the baseline setting presented (in DD/MM/YYYY)?		DR	CAR 25. Please state a date of setting baseline scenario.	CAR 25	
B.4.2. Is the contact information provided?		DR	See Section B.4 of the PDD	OK	OK
B.4.3. Is the person/entity also a project participant		DR	CAR 26. Please state if the person/entity	CAR 26	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
listed in Annex 1 of PDD?			also a project participant listed in Annex 1 of PDD.		
C. Duration of the small-scale project and crediting period					
C.1. Starting date of the project					
C.1.1. Is the project's starting date clearly defined?		DR	CAR 27. Please define one starting date of the project.	CAR 27	
C.2. Expected operational lifetime of the project					
C.2.1. Is the project's operational lifetime clearly defined in years and months?		DR	20 years/240 months	OK	OK
C.3. Length of the crediting period					
C.3.1. Is the length of the crediting period specified in years and months?		DR	Yes, please refer to Section C.3.	OK	OK
D. Monitoring Plan					
D.1. Description of monitoring plan chosen					
D.1.1. Is the monitoring plan defined?		DR	Yes, please refer to Section D.1.	OK	OK
D.1.2. Option 1 – Monitoring of the emissions in the project scenario and the baseline scenario.		DR	See Section D.1. of the PDD CL 4. Please clarify why the calculation omits NCV of the natural gas. CAR 28. Please correct if the parameter is measured, calculated or evaluated (especially emission factor for Electricity Transmission Grid of Ukraine). CL 5. Please clarify why annual time of the boilers work is monthly measured?	CL 4, CL 5, CAR 28	
D.1.3. Data to be collected in order to monitor emissions from the project, and how these data will be		DR	See Section D.1.1.1. of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
archived.					
D.1.4. Description of the formulae used to estimate project emissions (for each gas, source etc,; emissions in units of CO2 equivalent).		DR	See Section D.1.1.2. of the PDD	OK	OK
D.1.5. Relevant data necessary for determining the baseline of anthropogenic emissions of greenhouse gases by sources within the project boundary, and how such data will be collected and archived.		DR	See Section D.1.1.3. of the PDD CAR 29. Please correct if the parameter is measured, calculated or evaluated (especially emission factor for Electricity Transmission Grid of Ukraine, Specific natural gas consumption for ammonia production).	CAR 29	
D.1.6. Description of the formulae used to estimate baseline emissions (for each gas, source etc,; emissions in units of CO2 equivalent).		DR	See Section D.1.1.4. of the PDD. CL 6. Please clarify why the parameter HC_{urea} is absent from table D.1.1.3. and section B.1.	CL 6	
D.1.7. Option 2 – Direct monitoring of emissions reductions from the project (values should be consistent with those in section E)		DR	N/a	OK	OK
D.1.8. Data to be collected in order to monitor emission reductions from the project, and how these data will be archived.		DR	N/a	OK	OK
D.1.9. Description of the formulae used to calculate emission reductions from the project (for each gas, source etc,; emissions/emission reductions in units of CO2 equivalent).		DR	N/a	OK	OK
D.1.10. If applicable, please describe the data and information that will be collected in order to monitor		DR	N/a	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
leakage effects of the project.					
D.1.11. Description of the formulae used to estimate leakage (for each gas, source etc,; emissions in units of CO2 equivalent).		DR	Not applied to this project. No leakage is expected since energy sources consumption is decreasing under the project activities, according to the baseline. The leakage from gas-transport system of Ukraine is expected to reduce during the implementation of the project. According to the requirements of the "Guidance on criteria for baseline setting and monitoring" (version 02) conservative approach is used for this project, where the leakage reduction is not applied for emission calculation.	OK	OK
D.1.12. Description of the formulae used to estimate emission reductions for the project (for each gas, source etc,; emissions in units of CO2 equivalent).		DR	See Section D.1.4 of the PDD	OK	OK
D.1.13. Is information on the collection and archiving of information on the environmental impacts of the project provided?		DR, I	See Section D.1.5 of the PDD	OK	OK
D.1.14. Is reference to the relevant host Party regulation(s) provided?		DR, I	Reference is provided. See Section D.1.5.	OK	OK
D.1.15. If not applicable, is it stated so?		DR, I	See Section D.1.14 above.	-	-
D.2. Qualitative control (QC) and quality assurance (QA) procedures undertaken for data monitored					
D.2.1. Are there quality control and quality assurance procedures to be used in the monitoring of the		DR	See Section D.2. of the PDD. CAR 30. Please provide more transparent	CAR 30	

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
measured data established?			information considering sections of measurement.		
D.3. Please describe of the operational and management structure that the project operator will apply in implementing the monitoring plan					
D.3.1. Is it described briefly the operational and management structure that the project participants(s) will implement in order to monitor emission reduction and any leakage effects generated by the project		DR	See Section D.3 of the PDD	OK	OK
D.4. Name of person(s)/entity(ies) establishing the monitoring plan					
D.4.1. Is the contact information provided?		DR	Yes, see Section D.4. of the PDD	OK	OK
D.4.2. Is the person/entity also a project participant listed in Annex 1 of PDD?		DR	CAR 31. Please define if the person/entity is also a project participant listed in Annex 1 of PDD	CAR31	
E. Estimation of greenhouse gases emission reductions					
E.1. Estimated project emissions					
E.1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due the project?		DR	See section D.1.1.2 of the PDD	OK	OK
E.1.2. Is there a description of calculation of GHG project emissions in accordance with the formula specified in for the applicable project category?		DR	See section D.1.1.2 of the PDD	OK	OK
E.1.3. Have conservative assumptions been used to		DR	See section D.1.1.2 of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
calculate project GHG emissions?					
E.2. Estimated leakage					
E.2.1. Are described the formulae used to estimate leakage due to the project activity where required?		DR	Leakage is not expected.	OK	OK
E.2.2. Is there a description of calculation of leakage in accordance with the formula specified in for the applicable project category?		DR	See E.2.1. above	-	-
E.2.3. Have conservative assumptions been used to calculate leakage?		DR	See E.2.1. above	-	-
E.3. The sum of E.1 and E.2.					
E.3.1. Does the sum of E.1. and E.2. represent the small-scale project activity emissions?		DR	See Section E.3 of the PDD	OK	OK
E.4. Estimated baseline emissions					
E.4.1. Are described the formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category?		DR	See D.1.1.4 and E.4 of the PDD	OK	OK
E.4.2. Is there a description of calculation of GHG baseline emissions in accordance with the formula specified in for the applicable project category?		DR	See D.1.1.4 and E.4 of the PDD	OK	OK
E.4.3. Have conservative assumptions been used to calculate baseline GHG emissions?		DR	See D.1.1.4 and E.4 of the PDD	OK	OK
E.5. Difference between E.4. and E.3. representing the emission reductions of the project					
E.5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the		DR	See Section E.5 of the PDD	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
project during a given period?					
E.6. Table providing values obtained when applying formulae above					
E.6.1. Is there a table providing values of total CO_2 abated?		DR	Table is presented in the Section E.6 of the PDD.	OK	OK
F. Environmental Impacts					
F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party					
F.1.1. Has an analysis of the environmental impacts of the project been sufficiently described?		DR, I	Yes, see Section F.1.1	OK	OK
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is and EIA approved?		DR, I	See Section F.1.1. According to the projects structure performance of the EIA is not foreseen.	OK	OK
F.1.3. Are the requirements of the National Focal Point being met?		DR, I	NFP has issued Letter of Endorsement	OK	OK
F.1.4. Will the project create any adverse environmental effects?		DR, I	Adverse environmental effects are not foreseen	OK	OK
F.1.5. Are transboundary environmental effects considered in the analysis?		DR, I	Yes, see Section F.1.1.	OK	OK
F.1.6. Have identified environmental impacts been addressed in the project design?		DR, I	Yes, see Section F.of the PDD.	OK	OK

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
***G.* Stakeholders' comments**					
G.1. Information on stakeholders' comments on the project, as appropriate					
G.1.1. Is there a list of stakeholders from whom comments on the project have been received?		DR	See Section G.1 of the PDD	OK	OK
G.1.2. The nature of comments is provided?		DR	See Section G.1 of the PDD	OK	OK
G.1.3. Has due account been taken of any stakeholder comments received?		DR	See Section G.1 of the PDD	OK	OK

Table 4 Legal requirements

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. **Legal requirements**					
1.1. Is the project activity environmentally licensed by the competent authority?		DR, I	See Section F.1 of the PDD	OK	OK
1.2. Are there conditions of the environmental permit? In case of yes, are they already being met?		DR, I	See Section F.1 of the PDD	OK	OK
1.3. Is the project in line with relevant legislation and plans in the host country?		DR, I	See Section 1.1 and 1.2 above	-	-

Table 5 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
CAR 1. There is no sign of project approval by the Parties involved. Issuance of the LoAs is pending.	A.5.1.	LoAs will be issued after submission of the Determination Report to the NFPs.	Pending.
CAR 2. Please change the version according to the date change.	A.1.2.	PDD version has been change in accordance with date.	Issue is closed.
CAR 3. Please change the date according to the changes to the PDD.	A.1.3.	Date of the last correction was insert into PDD.	Issue is closed.
CAR 4. Please provide description of the baseline scenario.	A.2.2.	Baseline scenario for JSC “OPZ” was focused on the continuation of the actual to 2001 technical equipment at the appropriate condition. Natural gas and electricity consumption for the ammonia and urea production and GHG emissions as well are supposed stay at the level of 2000.	Issue is closed.
CAR 5. Please provide description of the projectline scenario.	A.2.2.	Project activity is focused on improving of the energy efficiency of the enterprise with the help of 3 projects modernization. The main purpose of the planned activities implementation, in order to improve power efficiency of the production in JSC "OPP", is to decrease natural gas volumes burnt for ammonia production and heat energy for	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
		manufacturing and heating needs of the plant that will lead to greenhouse gases emissions reduction.	
CAR 6. Please provide description of the project history.	A.2.2.	The project history starts when the "JSC "OPP" energy saving program for the period of 1998-2005" was approved at the enterprise. Within the program, the reconstruction of secondary reformer was implemented on the ammonia production plants during 1999-2000, and the engines "Avon" made by "Rolls-Roys", Great Britain were replaced by new more effective gas-turbine engines "DG-90" made by NVP "Mashproekt", Ukraine in the ammonia terminal.	Issue is closed.
CAR 7. Please provide the proof that JI incentive was taken into account at the decision making stage.	A.2.2.	Concerning the opportunity to attract finances for production modernization at the cost of Kyoto mechanisms, the management of JSC "OPP" initiated a joint implementation project of "Realisation of a complex of energy saving activities at the JSC "Odessa Port Plant" in 2001.	Issue is closed.
CAR 8. Please provide technological description of the heat utilization process by the waste heat boilers for the flue gases.	A.4.2.1.	Added to the PDD version 02, Section A.4.2	Issue is closed.
CAR 9. Please provide more transparent	A.4.2.1.	Added to the PDD version 02, Section A.4.2	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
description of the urea production process.			
CAR 10. Please provide more transparent description of the ammonia production.	A.4.2.1.	Added to the PDD version 02, Section A.4.2	Issue is closed.
CL 1. Please clarify what is the cause for the severe reduction of specific electric power consumption for urea production at the Figure 6.	A.4.2.1.	Decreasing of the specific electric power consumpstion on urea production can be explained as follows in the period from 2004 to 2008 at the enterprise in the limits of the program of energy saving experimental researches of urea production with low electricity consumption were conducted. But due to the lowering of the electricity consumption other technical characteristics got worse that is why the decision to refuse from this technology was taken.	Issue is closed.
CAR 11. Please provide implementation schedule of the project.	A.4.2.1.	Added to the PDD version 02, Section A.4.2.	Issue is closed.
CAR 12. Please justify the approach chosen to define baseline scenario.	B.1.2.	The baseline for this project was chosen according to "Guidance on criteria for baseline setting and monitoring" (version 02). Correspondently to the document request, the selection of the baseline can be stated on a certain approach that is used only for a specific project of joint implementation, or on a standard approach with a use of methodologies including small-scaled that are approved by the Joint Implementation	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
		Supervisory Committee.	
CAR 13. Please provide the justification of the methodology selection.	B.1.3.	Since this project consists of several subprojects that are aimed at different key factors allowing to reduce greenhouse gas emission, the baseline was determinated on the basis of certain approach. According to "Guidance on criteria for baseline setting and monitoring" (version 02) for such projects, based on the certain approach, specific methodological parts can be included into the baseline determination that are approved by the Joint Implementation Supervisory Committee. For the baseline determination of this project, specific elements of consolidated methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2)[2] were use. One out of three subprojects, namely "Installation of waste heat boilers for the flue gases", completely conforms to the object of this methodology, therefore, to determine basic emissions of this subproject, the indicated methodology requirements were used. Subproject "Modernization of two urea production units" presumes calculation of the	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
		heat and electric energy consumption for urea production, and methodology ACM0012 "Consolidated baseline methodology for GHG emission reductions from waste energy recovery projects" (version 3.2) states the requirements for calculation of the heat and electric energy amounts, therefore, separate parts of the indicated methodology were used for this subproject.	
CAR 14. Please provide the reference for all sources and literature.	B.1.5.	All the sources and literature are referenced in the PDD version 02	Issue is closed.
CAR 15. Please correct the reference to the Emission factor for Electricity Transmission Grid of Ukraine form Alchevsk coke plant to the Global Carbon BV project and please define the year for which data from National Cadastre of Ukraine were taken.	B.1.5.	Corrected in the PDD version 02	Issue is closed.
CAR 16. Please provide chosen years and data for baseline for yeah parameter since site visit reflected that for the different elements of the project different years of the baseline calculation are taken.	B.1.5.	Baseline years are inserted in to the Tables in the Section B.1 and Annex 2 version 02	Issue is closed.
CAR 17. All calculations in the financial model are made in EUR at the same the developer is utilizing the integral rate for	B.2.1.	The data was recalculated according to the CAR. Appropriate changes were made in PDD version 02.	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
Ukrainian banks loans as the benchmark. Please note that this sort of benchmark is not applicable for the present model. As all calculations are made in foreign currency the rates for foreign currency loans shall be applied. The relevant statistics is available from the National Bank web site www.bank.gov.ua. For example the average bank interest rate in foreign currencies for 2009 is 11,4%.			
CAR 18. Guidance for the Assessment of Investment analysis (hereinafter referred as the Guidance) in the article 4 requires the fair value of the assets at the end of the end of assessment period to be included in the cash flow for the final year. Please make the relevant corrections to the model.	B.2.1.	During IRR calculation the fair value of the assets at the end of the end of assessment period to be included in the cash flow for the final year was accounted. Appropriate changes were made in the calculations.	Issue is closed.
CAR 19. Financial model shall refer to all major inputs such as energy tariffs, price of natural gas, EUR/USD exchange rates for each year.	B.2.1.	Appropriate changes were made in the calculations.	Issue is closed.
CAR 20. Please note that according to the Additionality Tool the financial model shall be provided with all formulas clearly readable in order user could reproduce the results of	B.2.1.	Appropriate changes were made in the calculations.	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
calculations.			
CL 2. Please indicate whether tariffs, costs, prices and investment values are indicated with VAT included or not.	B.2.1.	Tariffs, costs, prices and investment values are indicated without VAT included.	Issue is closed.
CAR 21. Financial model at present does not account for inflation which is unacceptable for long-term projections like in this case.	B.2.1.	For calculation of foreseen cost of energy resources in the future foreseen rates of inflation based on the previous years statistic data were used.	Issue is closed.
CAR 22. Investment costs are allocated for one single year while in reality the energy efficiency program is gradually implemented during 10 years period. Please distribute the investment costs by relevant project years in accordance with fact and realistic plan.	B.2.1.	Appropriate changes were made in the calculations.	Issue is closed.
CAR 23. Unfortunately the sensitivity analysis is missing. Please submit sensitivity analysis calculations as required by the Additionality Tool.	B.2.1.	Projects sensitivity was evaluated as ±10% from the change of energy resources price	Issue is closed.
CAR 24. Please fill in the gaps on the p.26	B.2.4.	Table is filled in the PDD version 02 on the p.26	Issue is closed.
CL 3. Please clarify why the table that describes project boundaries project and baseline scenarios are named the same.	B.3.1.	Appropriate changes were made in the PDD.	Issue is closed.
CAR 25. Please state a date of setting	B.4.1.	Date of the baseline setting is: 02/08/2010	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
baseline scenario.			
CAR 26. Please state if the person/entity also a project participant listed in Annex 1 of PDD.	B.4.3.	No, the person/entity is not a project participant listed in Annex 1 of PDD	Issue is closed.
CAR 27. Please define one starting date of the project.	C.1.1.	Starting date of the project is 28th of February 2002 року	Issue is closed.
CL 4. Please clarify why the calculation omits NCV of the natural gas.	D.1.2.	NCV of the natural gas is used in the calculations for defining the amount of heat energy. In this project the amount of heat energy is measured with the help of special equipment. Emission calculations are made on the basis of the amount of heat energy and emission factor of the appropriate fuel type. Emission calculations for subproject "Modernization of two ammonia production units" is provided according to the methodology defined in the "National Cadaster of Ukraine", which does not use NCV of the natural gas.	Issue is closed.
CAR 28. Please correct if the parameter is measured, calculated or evaluated (especially emission factor for Electricity Transmission Grid of Ukraine).	D.1.2.	Estimated	Issue is closed.
CL 5. Please clarify why annual time of the boilers work is monthly measured?	D.1.2.	Corrected in the PDD verison 02	Issue is closed.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 2, 3 and 4	Summary of project owner response	Determination team conclusion
CAR 29. Please correct if the parameter is measured, calculated or evaluated (especially emission factor for Electricity Transmission Grid of Ukraine, Specific natural gas consumption for ammonia production).	D.1.5.	Emission factor for Electricity Transmission Grid of Ukraine is estimated, Specific natural gas consumption for ammonia production is calculated. Appropriate corrections were made in the PDD version 02	Issue is closed.
CL 6. Please clarify why the parameter HC_{urea} is absent from table D.1.1.3. and section B.1.	D.1.6.	Parameter HCurea is used only for project emissions' calculation that is why it is absent in the Table D.1.1.3. and Section B.1., which contain only baseline parameters. This parameter is calculated on the basis of amount of produced urea and specific heat consumption for urea production. Those two parameters are indicated in table D.1.1.3. and Section B.1.	Issue is closed.
CAR 30. Please provide more transparent information considering sections of measurement.	D.2.1.	Please refer to PDD version 02	Issue is closed.
CAR 31. Please define if the person/entity is also a project participant listed in Annex 1 of PDD	D.4.2.	No, the person/entity is not a project participant listed in Annex 1 of PDD	Issue is closed.

Appendix B: Verifiers CV's

Oleg Skoblyk, Specialist (Power Management)
Climate Change Lead Verifier
Bureau Veritas Ukraine HSE Department project manager.
Oleg Skoblyk has graduated from National Technical University of Ukraine 'Kyiv Polytechnic University" with specialty Power Management. He has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. Oleg Skoblyk has undergone intensive training on Clean Development Mechanism /Joint Implementation and he is involved in the determination/verification of 9 JI projects.

Kateryna Zinevych, M.Sci. (environmental science)
Climate Change Verifier
Bureau Veritas Ukraine Health, Safety and Environment Project Manager

Kateryna Zinevych has graduated from National University of Kyiv-Mohyla Academy with the Master Degree in Environmental Science. She has experience at working in a professional position (analytics) involving the exercise of judgment, problem solving and communication with other professional and managerial personnel as well as customers and other interested parties at analytical centre "Dergzovnishinform" and "Burea Veritas Ukraine" LLC. She has successfully completed IRCA registered Lead Auditor Training Course for Environment Management Systems and Quality Management Systems. She has successfully completed Climate Change Verifier Training Course and she participated as verifier in the determination/verification of 26 JI projects.

Ivan G. Sokolov, Dr. Sci. (biology, microbiology)

Internal Technical Reviewer, Climate Change Lead Verifier, Bureau Veritas Certification Holding SAS Local Climate Change Product Manager for Ukraine

Acting CEO Bureau Veritas Black Sea District

He has over 25 years of experience in Research Institute in the field of biochemistry, biotechnology, and microbiology. He is a Lead auditor of Bureau Veritas Certification for Environment Management System (IRCA registered), Quality Management System (IRCA registered), Occupational Health and Safety Management System, and Food Safety Management System. He performed over 140 audits since 1999. Also he is Lead Tutor of the IRCA registered ISO 14000 EMS Lead Auditor Training Course, and Lead Tutor of the IRCA registered ISO 9000 QMS Lead Auditor Training Course. He is Lead Tutor of the Clean Development Mechanism /Joint Implementation Lead Verifier Training Course and he was involved in the determination/verification over 60 JI/CDM projects.

Flavio Gomes

Lead Verifier, Operational Manager

Bureau Veritas Climate Change Global Manager

Flavio Gomes is a Chemical and Safety Engineer graduated from «UNICAMP – Universidade Estadual de Campinas», with a MSc title in Civil Engineer (Sanitation). He spent four years at RIPASA Pulp and Paper as Environmental Process Engineer. Since 2006 Mr. F.Gomes is the Global Manager for Climate Change. Previously and since 1997, he was senior consultant for Bureau Veritas Consulting in fields of Environment, Health, Safety, Social Accountability and Sustainability audit and management systems. He also acted as Clean Development Mechanism verifier, and Social/Environmental Report auditor, in the name of Bureau Veritas Certification. Flavio is pursuing this PhD on Energy Management at the Imperial College – London.