# DETERMINATION REPORT

## CEP Carbon Emissions Partners S.A.

## DETERMINATION OF THE JI PROJECT

# Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz"

## REPORT NO. UKRAINE-DET/0365/2011

REVISION NO. 02

## BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-det/0365/2011

# DETERMINATION REPORT

| Date of first issue: 19/09/2011 | Organizational unit: Bureau Veritas Certification Holding SAS |
|---|---|
| Client: CEP Carbon Emissions Partners S.A. | Client ref.: Fabian Knodel |

Summary:
Bureau Veritas Certification has made the determination of the "Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" project of CEP Carbon Emissions Partners S.A. located in Vinnytsya city as well as towns and villages of Vinnytsya 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.: UKRAINE-det/0365/2011 | Subject Group: JI |
|---|---|
| Project title: Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" | |
| Work carried out by: Oleg Skoblyk – Team Leader, Climate Change Lead Verifier<br>Kateryna Zinevych – Team member, Climate Change Lead Verifier<br>Oleksiy Kulakov – Team Member, Climate Change Specialist | |
| Work reviewed by: Ivan Sokolov – Internal Technical Reviewer<br>Elena Mazlova – Climate Change Specialist | |
| Work approved by: Flavio Gomes – Operational Manager | |
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**Indexing terms**

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# 1 INTRODUCTION

CEP Carbon Emissions Partners S.A. has commissioned Bureau Veritas Certification to determine its JI project “Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC “Vinnitsagaz” (hereafter called “the project”) in Vinnytsya city as well as towns and villages of Vinnytsya region, Ukraine.

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

## 1.1 Objective

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

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

## 1.2 Scope

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

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

## 1.3 Determination team

The determination team consists of the following personnel:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

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

Oleksiy Kulakov
Bureau Veritas Certification Team Member, Climate Change Specialist

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

Elena Mazlova
Bureau Veritas Certification, Climate Change Specialist

# 2 METHODOLOGY

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

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

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

The determination protocol consists of two tables and 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 and resubmitted it as the PDD version 03 on 23/09/2011.

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

## 2.2 Follow-up Interviews

On 06/09/2011 determination team of 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 PJSC "Vinnitsagaz" 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 |
|---|---|
| PJSC "Vinnitsagaz" | ➢ History of the project<br>➢ Project approach<br>➢ Project boundary<br>➢ Implementation schedule<br>➢ Organizational structure<br>➢ Responsibilities and obligations<br>➢ Personnel training<br>➢ Quality control procedures and technologies<br>➢ Modernization/installation of equipment (records)<br>➢ Metering equipment control<br>➢ Metering data recording system, data base<br>➢ Technical documentation<br>➢ Monitoring plan and procedures<br>➢ Permissions and licenses<br>➢ Environmental impact assessment<br>➢ Stakeholders answers |
| CEP Carbon Emissions Partners S.A. | ➢ Baseline methodology<br>➢ Monitoring plan<br>➢ Demonstration of additionality<br>➢ Emission reduction calculations<br>➢ Project design<br>➢ Legal issues relating to the project<br>➢ Environmental impact<br>➢ Approval by the Host party |

## 2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise the clarification requests, requests for corrective and forward actions as well as 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 determination process, the concerns raised are documented in more detail in the determination protocol in Appendix A.

# 3 PROJECT DESCRIPTION

The purpose of the project is reduction of the natural gas emissions at gas-transportation and gas-distribution infrastructure of PJSC “Vinnitsagaz”, which are the result of leaks from gas equipment and gas fittings. The basic sources of leaks, included into the project boundary are:

- gas equipment (reducing gears, valves, filters, switches, etc.), flanged and threaded connections in gas distribution points (GDPs) and cabinet-type gas distribution points (CGDPs) of PJSC “Vinnitsagaz”;
- gas fittings (faucets, bolts, valves, etc.), threaded and flanged connections at gas pipelines of PJSC “Vinnitsagaz”.

General quantity of GDPs included into the boundary of the project is 499 units, CGDPs – 1155 units, number of gas fittings at gas pipelines is 4551 units.

The main reason of natural gas leak is failure of sealing elements of equipment as a result of action of temperature vibrations and moisture. Basic component of natural gas, methane (92 - 95%), is a greenhouse gas. Removal of natural gas leak will result in greenhouse gas emission reductions.

PJSC “Vinnitsagaz” is the company providing natural gas transportation and supply to industrial consumers (286 companies), municipal services (5573 enterprises) and population (633 992 appartments and households) in Vinnytsya city as well as towns and villages in Vinnytsya region, Ukraine.

The structure of current gas transport rates that are regulated by the government does not include depreciation and investment needs of gas distribution enterprises. This leads to the lack of funds for performance of necessary repair works and modernization of gas networks, purchase of appropriate engineering equipment and components, and also results in increase of natural gas leak at the PJSC “Vinnitsagaz” facilities.

Application of JI project mechanism provided by the Kyoto Protocol was planned before the beginning of the project implementation. For this purpose, a Memorandum of Understanding relating to the Joint Implementation project between Moston Properties Limited and PJSC “Vinnytsagaz” was signed in August 2006.

Project measures consist in reduction of methane leaks that result from seal failure of the GDP (CGDP) gas equipment and gas fittings of gas pipelines of PJSC “Vinnitsagaz”.

Within the framework of the JI project with the aim of repair of methane leak at gas equipment and gas fittings three types of repair works are used:

- Complete replacement of out-of-date and morally worn out gas equipment and gas fittings with new units;
- Repair of gas equipment and gas fittings components;
- Replacement of pressure-sealing elements by using modern sealing materials thus changing common practice of maintenance and repair that is based on using paronite gaskets, and sealing stuffing made of cotton fibres with fatty impregnation and asbestos-graphite filler.

The existent common practice of service and repair on the basis of paronite gaskets, and sealing stuffing made of cotton fibres with fatty

impregnation and asbestos-graphite filler does not give long-lasting effect of methane leaks reduction.

In addition to reduction of methane leak, the JI project activity will lead to reduction of technical leaks of natural gas and it will contribute to improvement of environmental situation, reduction of the risk of accidents and explosive situations.

The project activity includes:

- Implementation of purposeful examination and technical maintenance (PETM) of GDP (CGDP) gas equipment and gas fittings, flange and threaded joints – modern and the most economically effective practice, which allows not only for detection of leaking areas, but also determination of leak volume (i.e., potential volume of gas loss reduction). This key information is required for substantiation of efficiency of repair works and priority choice of its objects, which is important under short financing for repair of all leaks. This activity includes purchase and calibration of modern measuring equipment, appropriate training of employees, monitoring of each unit of gas equipment and gas fittings, flange and threaded joints, creation of methane volume leak data collection and storage system, and implementation of internal audit and quality assurance system for repair and accounting of methane leak.

- Detection and measurement of methane leak: the monitoring system of leak at all GDP (CGDP) gas equipment, gas fittings (faucets, bolts, valves), flange and threaded joints, including repaired methane leak (repaired components of equipment). The monitoring is carried out on a regular basis by specially trained staff. Detected leak is duly marked with individual number; methane leak volumes are measured and registered in the database.

- Repair of all detected leaks: repairs of leaking gas equipment and gas fittings of gas distribution pipelines in the framework of this project vary from replacement of gaskets and the use of new compactors or sealing materials to capital repairs and replacement of the gas equipment and gas fittings with new and modern ones. Repaired components of gas equipment and gas fittings of gas distribution pipelines are regularly checked as a part of a standard monitoring activity to make sure they have not become the source of leak again.

The project was initiated in August 2006:

In August-September 2006 there was inspection of GDP (CGDP) gas equipment and gas fittings, flanged and threaded joints of gas pipelines of

PJSC “Vinnitsagaz” and primary measuring of emissions were done, the results of which made the basis for setting the project baseline.

A Memorandum of Understanding relating to the JI project was signed on August, 29, 2006 between the companies Moston Properties Limited (Great Britain) and PJSC “Vinnitsagaz”. This document stipulates that Moston Properties Limited develops the monitoring program of emissions and JI Project Design Document (PDD).

On August 30, 2006 the Working team was organized; its basic task is to ensure the JI project implementation.

On September 07, 2006 the PDD of the project was approved (version 01) by PJSC “Vinnitsagaz”; the PDD included the program of emissions monitoring.

September 2006 – beginning of inspection and repair works of GDP (CGDP) gas equipment and gas fittings, flanged and threaded joints of gas-distribution networks of PJSC “Vinnitsagaz”.

December 2010 - Moston Properties Limited acting with the knowledge of PJSC “Vinnitsagaz” transferred all its rights and obligations under the Memorandum of Understanding relating to the JI project to CEP Carbon Emissions Partners S.A. (Switzerland); on this basis emission reductions purchase agreement relating to the JI project was signed between CEP Carbon Emissions Partners S.A. and PJSC "Vinnitsagaz" on December 16, 2010.

Durations of the project is unlimited, as the PETM program, the monitoring and emissions elimination program were aimed at becoming a part of PJSC “Vinnitsagaz” day by day work. $CO_{2e}$ emission reductions are claimed for the period of 12 years in accordance with modality and procedures of JI Mechanism.

The Determination protocol of the project contains CARs and CLs for the PDD version 01, 02 and 03.

# 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 Requests as well as Forward 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 19 Corrective Action Requests, 3 Clarification Requests and 1 Forward Action Request.

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 methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" has already obtained endorsement of the Ukrainian government, namely the Letter of Endorsement №2457/23/7 issued by the State Environmental Investment Agency of Ukraine dated 08/09/2011.
Bureau Veritas Certification received this letter from the project participants and does not doubt its authenticity.
On completion of the Determination Report the project design document will be submitted to the State Environmental Investment Agency of Ukraine to obtain the Letter of Approval. The second Letter of Approval will be received from the other project participant party.

Since the project is not approved by the parties involved in the project, FAR 01 is pending and will be closed after completion of the report (refer to Appendix A).
Identified problem areas of concern as to project approval by the Parties involved, project participants answers and conclusions of Bureau Veritas Certification are described in Appendix A to this report (refer to CAR 09, CL 01, FAR 01).

## 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 a Parties involved, which are also listed in the PDD, through written Letters of Approval (from the government of Switzerland as the country-investor and from the government of 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 appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline (in accordance with

paragraph 11 of the Guidance on criteria for baseline setting and monitoring (version 02)).
Baseline setting (measurement and calculation of methane leaks) has been performed by using specific approach on the basis of the approved CDM methodology AM0023 version 3.0 «Leak reduction from natural gas pipeline compressor or gate stations» with the modification of methodology AM0023 version 3.0 which is connected with application of more accurate method of methane leaks measuring.

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. Scenario in which the company continues to operate existing system of leaks detection and repair.

b. Scenario in which GHG emission reductions are achieved due to proposed project activity without using JI mechanism.

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

i. The role of energy sector is absolute and crucial for Ukraine. Power sector is a political factor of sovereignty in Ukraine. Ukrainian economy is considered to be one of the most energy intensive in the world in terms of the consumption of primary energy per a gross domestic product unit. On March 15, 2006 the Cabinet of Ministers of Ukraine adopted “Energy Strategy of Ukraine till 2030”. The Energy strategy considers exploration of non-traditional and renewable energy sources as a significant factor in increasing the level of energy safety, decrease of energy anthropogenic affect on environment and counteractions against global climate change.

ii. Most companies in the natural gas transportation and supply sector currently operating in Ukraine operate equipment that was installed in the times of the Soviet Union.

iii. Current practice of detection and elimination of natural gas losses and accordingly, methane emissions, corresponds to the current legislation of Ukraine. The legislation allows for the natural gas losses, and, accordingly, methane emissions in the course of natural gas transportation. Norms set only the periodicity of equipment verifications with the aim of identification of natural gas losses which the gas-distribution organizations must comply with. Practice of natural gas losses identification in PJSC «Vinnitsagaz» corresponds to the indicated norms. Control of observance of norms is performed by implementation of annual revisions by the authorized bodies.

iv. State support in the field of natural gas transportation and supply is provided in the scope which depends on funds provided by the law of Ukraine on State Budget of Ukraine for the relevant year.

v. Ukraine already has experience in JI projects implementation in the natural gas transportation and supply sphere ("Reduction of methane emissions at flanged, threaded Joints and shut-down devices of OJSC "Kiyvgas" equipment", "Reduction of Methane Emissions at Flanged, Threaded Joints and Shut-down Devices of OJSC "Odesagas" Equipment", "Reduction of natural gas emissions at OJSC "Odesagas" gate stations and gas distribution networks") due to the sale of emission reduction units.

## 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 according to JI specific approach set forth in paragraph 2 (c) of the appendix I to the Guidance on criteria for baseline setting and monitoring. All explanations, descriptions and analyses are made in accordance with the selected tool.

The PDD provides a justification of the applicability of the approach with a clear and transparent description, according to section 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.
The PDD of the last version demonstrated that there are several barriers that hinder the proposed project activity.
Additionality proofs were provided.
Two plausible and realistic alternative scenarios were provided in the project:
- The continuation of the current practice of detection and elimination of natural gas losses and accordingly – methane emissions;
- Measures planned by the Project will be carried out without the use of the mechanism set by the article 6 of the Kyoto protocol to the UN Framework Convention On Climate Change.
and the scenarios' mandatory compliance with the laws and legal acts was demonstrated.

Such potential barriers as financial barriers (additional cost on implementation of measures planned by the project, purchase and operation of modern measuring equipment for detection and measuring of methane emissions), organizational barriers (lack of labour and technical resources of PJSC "Vinnitsagaz" for implementation and carrying out purposeful examination, technical maintenance of gas equipment) that hinder the implementation of the project scenario without additional income from the project under the joint implementation mechanism, and which in fact will not allow for implementation of any alternative other than the baseline scenario, were described and grounded properly. There are no barriers to baseline alternative, which is the continuation of the situation before the implementation of project activities.
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.
Identified problem areas of concern as to additionality, project participants answers and conclusions of Bureau Veritas Certification are described in Appendix A to this report (refer to CAR 10, CL 02).

## 4.5 Project boundary (32-33)

The project boundary defined in the PDD, which in accordance with the specific approach with the use of methodology AM0023 version 3.0 «Leak reduction from natural gas pipeline compressor or gate stations» is delineated by the physical, geographical location of PJSC "Vinnitsagaz" project equipment and encompass all anthropogenic emissions by sources of greenhouse gases (GHG) that are:

(i) Under the control of the project participants, such as:
- leaks at gas equipment (reducing gears, valves, filters etc.) of gas-distribution points (cabinet-type gas-distribution points);

(ii) Reasonably attributable to the project, such as:
- leaks at gas fittings (faucets, bolts etc.), threaded and flanged connections that are located at gas-distribution networks of PJSC «Vinnitsagaz».

(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.

Identified problem areas of concern as to project boundary, project participants answers and conclusions of Bureau Veritas Certification are described in Appendix A to this report (refer to CAR 11).

## 4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which Moston Properties Limited and PJSC “Vinnitsagaz” signed the Memorandum of Understanding, and the starting date is 29/08/2006 which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 11 years and 4 months or 136 months (from September 7, 2006 to December 31, 2017).

The PDD states the length of the crediting period in years and months, which is from September 7, 2006 to December 31, 2017 (11 years and 4 months or 136 months).

The PDD states the length of the Kyoto crediting period in years and months, which is from January 1, 2008 to December 31, 2012 (5 years or 60 months).

The date on which the first measures under the project were implemented at PJSC “Vinnitsagaz” gas pipelines was taken as the starting date of the crediting period, namely September 7, 2006.

If after the first commitment period under the Kyoto Protocol its validity is prolonged, the crediting period under the project will be prolonged by 5 years/60 months (January 01, 2013-December 31, 2017).

The end of the crediting period will be the final date of commitments to the buyer under the purchase and sales contract, under which the project owner must deliver to the buyer verified greenhouse gases anthropogenic emission reductions resulting from this project, namely December 31, 2017.

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.

## 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 the necessary factors and key characteristics that will be monitored, and the period during which they will be monitored, particularly all the critical factors for controlling and reporting on the project activities, 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. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions or enhancements of net removals to be monitored such as global warming potential, uncertainty factor for leaks measuring equipment.

The monitoring plan has properly given a list of standard variables that are contained in Annex B to the "Guidance on criteria for baseline setting and monitoring," developed by the JISC, including: global warming potential ($GWP_{CH4}$), number of hours of equipment operation ($T_i$), flow rate of methane for each leak detected ($F_{CH4,l}$), methane concentration in a sample ($w_{sampleCH4,l}$).

The monitoring plan explicitly and clearly distinguishes:

(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination, such as:

| | |
|---|---|
| i | Sequence number of GDP (CGDP) gas equipment, gas fittings, where methane leaks were detected, repaired, and then resurveyed (according to methodology AM0023 version 3.0), relative units |
| $V_{bag}$ | Capacity of tank for measurements (according to methodology AM0023 version 3.0), $m^3$ |
| $GWP_{CH4}$ | Global warming potential for methane (according to the recommendations of IPCC amounts to 21 $tCO_{2e}/tCH_4$). |

(ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination, such as (not applicable for this project).

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

| | |
|---|---|
| $T_i$ | Time (number of hours) of operation of equipment where leak was detected during a year, hour |
| $F_{CH4,i}$ | Flow rate of methane at equipment for each leak detected, $m^3CH_4$/hour |
| $t_i$ | Gas temperature in tank, $^0C$ |
| $P_i$ | Gas pressure in tank, MPa |
| $w_{sampleCH4,i}$ | Methane concentration in tank (in a sample), % |
| $\tau_i$ | Time within which methane concentration in tank reached certain level, second |
| $UR_i$ | Uncertainty factor for leak measuring equipment, % |

After detection and measuring of methane leaks the monitoring program was worked out for all GDP (CGDP) gas equipment, shut-off and control valves, flanged and threaded connections of gas pipelines of PJSC "Vinnitsagaz". Implementation of such program is a part of the project activity. The monitoring embraces both emissions from the sources of leaks that are detected again and control over the already repaired gas equipment, whereat methane leaks were detected before.

Within the framework of the JI Project the working team of PJSC "Vinnitsagaz" made the Register of gas-distribution points and gas fittings of the JI project "Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" (see the Accompanying document 1), that includes complete information about all GDPs (CGDPs), shut-off and control valves, flanged and threaded connections that are included in the Project boundary.

All relevant data related to the calculation of methane leaks are kept in an electronic database. Every monitoring report will include all necessary information from this database.

The Project data and documents are kept till 31/12/2017 in a paper and/or electronic kind, in accordance with the orders of PJSC "Vinnitsagaz" management dated 30/08/2006 № 143 and dated 27/07/2011 № 291.

*Project emissions*

$F^{+}_{CH4,i} = Vbag * w_{sampleCH4,i} * 3600 / \tau_i$ , (1)

where

$F^{+}_{CH4,I}$ – flow rate of methane leaks (leak volume) due to leaking equipment i after the repair (replacement) (m³/h);
Vbag - leak-proof tank volume for measurement (m³);
$w_{sampleCH4,i}$ - methane concentration in a leak sample i, which is the difference of methane concentrations at the beginning and the end of measuring (%);
$\tau_i$ - average duration of filling the tank given determined concentration (seconds) that leads to leak.

Adjustment of rate (volume) of methane leaks to standard conditions:
The rate (volume) of methane leaks received as the result of measuring is adjusted to standard conditions ($P_н$ = 0.1013 MPa, $T_н$ = 273 K) according to the formula:

$$F_{CH_{4,i,P}} = \frac{F^{+}_{CH_{4,i}} \cdot 273 \cdot P}{0{,}1013 \cdot (273+t)} \quad , \qquad (2)$$

where

$F_{CH_{4,i,P}}$ – flow rate (volume) of project (after repair, replacement) methane leak for equipment i, adjusted to standard conditions ($m^3$/h);
P – gas pressure in the tank, MPa;
t – gas temperature in the tank, °C.

Annual project methane leaks (leaks after repair, replacement of equipment) are calculated according to the formula:

$Q_{yP} = ConvFactor * \Sigma[F_{CH_{4,i,P}} * Ti,y * URi] * GWP_{CH4} * 0.9$ , (3)

Where

QyP - methane leaks in period y, for equipment, which was repaired (replaced) ($tCO_{2e}$);

ConvFactor - the factor to convert m³ $CH_4$ into t $CH_4$. At standard temperature and pressure (0 degree Celsius and 1.013 bar) this factor amounts to 0.0007168 t $CH_4$/m³$CH_4$;
URi - the uncertainty range for the measurement method (amounts to 95%);
Ti,y - the time (in hours) equipment i has been operating during the period y (monitoring period) since being repaired (replaced);
$GWP_{CH4}$ - Global Warming Potential for methane (amounts to 21 $tCO_{2e}$/$tCH_4$);
0.9 - coefficient which takes into account the error of measuring equipment.

*Baseline Emissions*

$$\bar{F}_{CH_{4,i}} = Vbag * w_{sampleCH4,\,i} * 3600 / \tau_i \,, \qquad (4)$$

where

$\bar{F}_{CH_{4,i}}$ - flow rate (volume) of methane leaks due to leaking equipment i before repair (replacement) (m³/h);
Vbag - volume of leakproof tank for measuring (m³);
$w_{sampleCH4,\,i}$ – methane concentration in the sample of lead that is the difference of concentrations at the beginning and at the end of measuring (%);
$\tau_i$ - average duration of filling to the tank for leak i before its repair (replacement) (seconds).

The rate (volume) of methane leaks received as the result of measuring is adjusted to standard conditions ($P_н$ = 0.1013 MPa, $T_н$ = 273 K) according to the formula:

$$F_{CH_{4,i,B}} = \frac{\bar{F}_{CH_{4,i}} \cdot 273 \cdot P}{0{,}1013 \cdot (273 + t)}, \qquad (5)$$

where

$F_{CH_{4,i,P}}$ – flow rate (volume) of project (after repair, replacement) methane leak for equipment i, adjusted to standard conditions ($m^3$/h);
P – gas pressure in the tank, MPa;
t – gas temperature in the tank, °C.

Annual baseline methane leaks are calculated according to the formula:

$Q_{yB}$ = ConvFactor *Σ[ * Ti, y * of URi]*GWPCH4*0.9 , (6)

where

QyB – baseline methane leaks at gas equipment in period y (before its repair, replacement) ($tCO_{2e}$);
ConvFactor - the factor to convert $m^3$ $CH_4$ into t $CH_4$. At standard temperature and pressure (0 degree Celsius and 1.013 bar) this factor amounts to 0.0007168 t $CH_4/m^3CH_4$;
URi - the uncertainty range for the measurement method (amounts to 95%);
Ti,y - the time (in hours) equipment i has been operating during the period y (monitoring period) since being repaired (replaced);
$GWP_{CH4}$ - Global Warming Potential for methane (amounts to 21 $tCO_{2e}/tCH_4$);
0.9 - coefficient which takes into account the error of measuring equipment.

*Emission Reductions*

$ERU = \sum[ Q_{yB} - Q_{yP}]$ , (7)

where

ERU– Emissions reduction unit, t $CO_{2e}$;
$Q_{yP}$ – project emissions, t $CO_{2e}$;
$Q_{yB}$ – baseline emissions, t $CO_{2e}$.

The monitoring plan provides for the quality assurance and quality control procedures for the monitoring process, which are properly described in the PDD version 03. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

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

Co-ordination of work of all departments and services of PJSC “Vinnitsagaz” in relation to implementation of the JI project is carried out by the Working team created by Order No. 143 of PJSC “Vinnitsagaz” management dated 30/08/2006. The updated structure of the Working team was approved by Order №291 of acting chairman of the management board dated 27/07/2011 and it is presented in Figure 1.

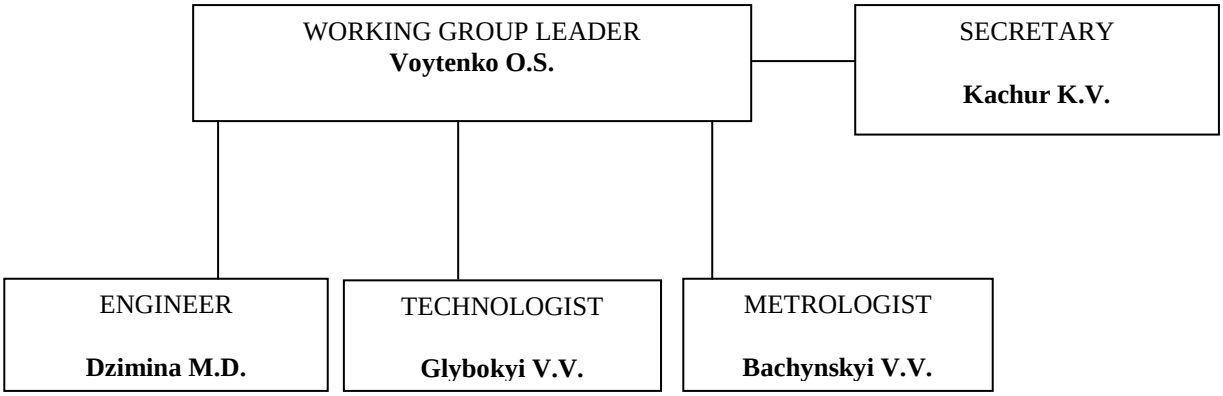


**Figure 1. Structure of the Working team**

Glubokyi V.V. is responsible for collection of all information envisaged in the monitoring plan and making all necessary calculations. Kachur K.V. is responsible for storage and archiving of all information obtained as a result of the measurements and calculations. On the basis of the obtained information Voytenko O.S., the leader of the working team, determines the plan of measures under the Project and the volume of necessary resources. Dzimina M.D. and Bachynskyi V.V. who are responsible for conducting monitoring measurements of leaks and repair thereof, ensure that calibrated measuring equipment and technical support are in place.

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

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

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

Identified problem areas of concern as to monitoring plan, project participants answers and conclusions of Bureau Veritas Certification are described in Appendix A to this report (refer to CAR 12, CAR 13, CAR 14, CAR 15, CAR 16, CAR 17, CL 03).

## 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.
By the JI Specific Approach chosen leakage is not foreseen.

No outstanding issues as to leakage were issued during the determination process.

## 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) Emission reductions from the project (within the project boundary), which are 60 831 tons of $CO_{2e}$ in 2006-2007, 808 184 tons of $CO_{2e}$ in 2008-2012, 869 015 tons of $CO_{2e}$ in 2013-2017;

(b) Leakage, as applicable, which are 0 tons of $CO_{2e}$;

(c) Emissions in the baseline scenario (within the project boundary), which are 342 767 tons of $CO_{2e}$ in 2006 – 2007, 4 553 893 tons of $CO_{2e}$ in 2008 – 2012 and 4 896 660 tons of $CO_{2e}$ in 2013-2017;

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are 281 936 tons of $CO_{2e}$ in 2006 – 2007, 3 745 709 tons of $CO_{2e}$ in 2008 – 2012 and 4 027 645 tons of $CO_{2e}$ in 2013-2017.

The estimates referred to above are given:

(a) On an annual basis;

(b) From 07/09/2006 to 31/12/2017, covering the whole crediting period;

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

(d) For each GHG, which in this case is $CH_4$

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

The formula used for calculating the estimates referred above, which are clearly described in the section 4.7 of this report, are consistent throughout the PDD.
To calculate the above estimations 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, rates that are set by the state, modern technology and the ability to implement know-how in the natural gas transportation and supply sphere, that affect the baseline emissions level, project activity level and level of emissions, as well as risks associated with the project were properly taken into account.

Sources of data that were used for calculation of the above estimations such as documents and archival data of the enterprises, standards and statistical forms, actual historical monitoring data, IPCC etc. are clearly defined, credible and transparent.

Emission factors were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

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

The estimates referred to above are consistent throughout the PDD.

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

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

The identified areas of concern as to the estimation of emission reductions, project participants' response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination Report (refer to CAR 18, CAR 19).

## 4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party.

According to the ecological norms of Ukraine the emissions of natural gas into the atmosphere are not pollutants. Therefore no ecological permissions on transportation and supply of natural gas are needed. The only influence on environment by the project implementation is reduction of natural gas emissions into the atmosphere.

Implementation of this project will allow for promoting safety of exploitation of gas-distribution networks that will decrease probability of explosions or fires.

Transboundary influence of the project activity, in accordance with their determination in text of the "Convention on long range transboundary air pollution", ratified by Ukraine, will not occur.

The Project activity does not cause any harmful influence to the environment.

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

## 4.11 Stakeholder consultation (49)

Consultations were conducted with the specialists of Institute of General Energy of NAS of Ukraine. Comments from local Stakeholders were not received. The project activity does not provide for any negative influence on the environment and negative social effect.

No outstanding issues considering stakeholder consultation were issued during the determination process.

## 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 methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" 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, the baseline and monitoring plan;
ii) follow-up interviews with project stakeholders;
iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

Project participants used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides barrier analysis, financial costs analysis, 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 written approval of the project by the host Party (Ukraine) has not been obtained. If the host Party provides the written approval, it is our opinion that the project as described in the Project Design Document, Version 03 dated 23/09/2011 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria; it is also in line with the stakeholders expectations.

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/ | PDD of the JI project “Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz", Version 01, dated September 7, 2006. |
| /2/ | PDD of the JI project “Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz", Version 02, dated September 5, 2011. |
| /3/ | PDD of the JI project “Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz", Version 03, dated September 23, 2011. |
| /4/ | Guidelines for users of the JI PDD form. Version 04, JISC; |
| /5/ | CDM methodology AM0023 “Leak reduction from natural gas pipeline compressor or gate stations”, version 3.0 |
| /6/ | “Tool for the demonstration and assessment of additionality”, version 05.2 |
| /7/ | The Kyoto Protocol |

**Category 2 Documents:**

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

| | |
|---|---|
| /1/ | Registry of the gas distribution points (cabinet-type gas distribution points), gas fittings of gas distribution networks of PJSC “Vinnitsagaz” (as of 2006) |
| /2/ | Monitoring Plan dated 2006 |
| /3/ | A Memorandum of Understanding relating to the JI project dated August, 29, 2006 between the companies Moston Properties Limited (Great Britain) and PJSC “Vinnitsagaz”. |
| /4/ | Order #291 on changes of the structure of the Working team responsible for control over natural gas leaks at equipment of gas |

| | |
|---|---|
| | distribution networks and elimination of natural gas leaks in the framework of the JI project dated 27/07/2011 |
| /5/ | Order № 143 on creation of the Working team responsible for control over natural gas leakage at equipment of gas distribution networks and elimination of natural gas leakage in the framework of the JI project dated 30/08/2006 |
| /6/ | Registry of gas distribution points and gas fittings of the JI project "Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" |
| /7/ | Emission Reductions Calculations version 02 |
| /8/ | Emission Reductions Calculations version 03 |
| /9/ | Emission Reductions Calculations version 04 |
| /10/ | Guidelines for Users of the Join Implementation Project Design Document Form, version 04, JISC |
| /11/ | Joint Implementation Project Design Document Form, version 01 |
| /12/ | Glossary of JI terms, version 03, JISC. |
| /13/ | Guidance on Criteria for Baseline Setting and Monitoring, version 02, JISC. |
| /14/ | JISC "Clarification regarding the public availability of documents under the verification procedure under the Joint Implementation Supervisory Committee." Version 03 |
| /15/ | Letter of Endorsement issued by the State Environmental Investment Agency of Ukraine № 2457/23/7 dated 08/09/2011. |
| /16/ | Determination and Verification Manual, version 01 |

**Persons interviewed:**

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

| | **Name** | **Organization** | **Title** |
|---|---|---|---|
| /1/ | Voytenko O.S. | PJSC “Vinnitsagaz” | Head of the Working team |
| /2/ | Kachur K.V. | PJSC “Vinnitsagaz” | secretary |
| /3/ | Dzimina M.D. | PJSC “Vinnitsagaz” | engineer |
| /4/ | Glubokyi V.V. | PJSC “Vinnitsagaz” | technologist |
| /5/ | Bachynskyi V.V. | PJSC “Vinnitsagaz” | metrologist |

# APPENDIX A: COMPANY PROJECT DETERMINATION PROTOCOL

**Table 1. Check list for determination, according to JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)**

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| **General description of the project** | | | | |
| **A.1. Title of the project** | | | | |
| - | Is the title of the project presented? | "Reduction of methane emissions on the gas equipment of gas distribution plants, gas armature, flanged and threaded connections of gas distribution networks of PJSC "Vinnitsagaz" | OK | OK |
| - | Is the sectoral scope to which the project pertains presented? | Yes, the sectoral scope to which the project pertains is presented<br>Scope 10. Volatile emissions from fuels (solid, liquid fuels and gases) | OK | OK |
| - | Is the current version number of the document presented? | The current version number of the document: Project Design Documentation version 03 dated September 23, 2011. Refer to Section A.1. | OK | OK |
| - | Is the date when the document was completed presented? | The date when the document was completed: September 23, 2011. | OK | OK |
| **A.2. Description of the project** | | | | |
| - | 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 | The purpose of the project is reduction of the natural gas leaks at gas-transportation and gas-distribution infrastructure of PJSC "Vinnitsagaz", which are the result of leak from gas equipment and gas fittings. | OK | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | date of the project;<br>b) Baseline scenario; and<br>c) Project scenario (expected outcome, including a technical description)? | Situation existing prior to the project implementation and project scenarios are properly described. | | |
| - | Is the history of the project (incl. its JI component) briefly summarized? | **CAR 01.** Please, provide more detailed information about the history of the project (incl. its JI component). | **CAR 01** | OK |
| **Project participants** | | | | |
| - | Are project participants and Party(ies) involved in the project listed? | PJSC "Vinnitsagaz", CEP CARBON EMISSIONS PARTNERS S.A. | OK | OK |
| - | Is the data of the project participants presented in tabular format? | Yes, the data of the project participants is presented in tabular format | OK | OK |
| - | Is contact information provided in Annex 1 of the PDD? | Yes, contact information is provided in Annex 1 of the PDD | OK | OK |
| - | Is it indicated, if it is the case, if the Party involved is a host Party? | Yes, it is stated in section A.3. of the PDD that Ukraine is the host Party | OK | OK |
| **Technical description of the project** | | | | |
| **Location of the project** | | | | |
| - | Host Party(ies) | Ukraine | OK | OK |
| - | Region/State/Province etc. | Vinnytsya region | OK | OK |
| - | City/Town/Community etc. | The project is located in Vinnytsya city as well as towns and villages of Vinnytsya region | OK | OK |
| - | Details of the physical location, including information allowing for the unique identification of the project. (This section should not exceed one page) | Details of the physical location, including information allowing for the unique identification of the project is present in the section A.4.1.4 | OK | OK |
| **Technologies to be employed, or measures, operations or actions to be implemented by the project** | | | | |
| - | Are the technology(ies) to be employed, or measures, operations or actions to be | The technology(ies) to be employed, or measures, operations or actions to be implemented by the project, | **CAR 02**<br>**CAR 03** | OK<br>OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | implemented by the project, including all relevant technical data and the implementation schedule described? | including all relevant technical data and the implementation schedule are properly described<br>**CAR 02.** Please provide all the documentation that proves implementation schedule dates.<br>**CAR 03.** Please provide the project implementation schedule, indicate start and end dates of work for each milestone of the project.<br>**CAR 04.** Please provide references to manufacturers of the equipment to be used in the project.<br>**CAR 05.** Please provide information as to quantitative indicators of project activities for each measure. | **CAR 04**<br>**CAR 05** | OK<br>OK |
| **Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances** | | | | |
| - | Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page) | Project activity includes:<br>- repair (replacement) of GDP (CGDP) gas equipment, gas fittings, pressurizing of the threaded and flanged connections of gas pipelines of PJSC "Vinnitsagaz" with the use of modern equipment of the European producers and their analogues of national manufacturers, and the use of modern sealing materials;<br>- monitoring of methane leaks aimed at the detection of methane leaks caused by leakiness;<br>- subsequent renewal of leak-proofness of GDP (CGDP) gas equipment, gas fittings, threaded and flanged connections of gas pipelines.<br>Reduction of natural gas leaks will result in reduction of | OK | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | | emissions of methane that is greenhouse gas.<br>Absence of the project activity means that all equipment, including the obsolete and morally worn-out one, which is yet capable of working with worse leak-proofness than it is foreseen by the project activity, will be further exploited for a long time in the ordinary mode; this makes reduction of methane emissions impossible. | | |
| - | Is it provided the estimation of emission reductions over the crediting period? | Yes, the estimation of emission reductions over the crediting period is provided.<br>**CAR 06.** The PDD specifies duration of the crediting period of 12 years, and the calculations are provided only for 7 years. Please make the appropriate corrections. | **CAR 06** | OK |
| - | Is it provided the estimated annual reduction for the chosen credit period in $tCO_{2e}$? | Yes, the estimated annual reductions for the chosen credit period in $tCO_{2e}$ are provided. | OK | OK |
| - | Are the data from questions above presented in tabular format? | Yes, the calculations above are presented in tabular format<br>**CAR 07.** Please provide the data for 2013-2017 in one table. | **CAR 07** | OK |
| **Estimated amount of emission reductions over the crediting period** | | | | |
| - | Is the length of the crediting period Indicated? | **CAR 08.** Please indicate the same start date of the crediting period because in two different abstracts two different date are indicated. | **CAR 08** | OK |
| - | Are estimates of total as well as annual and average annual emission reductions in tonnes of $CO_2$ equivalent provided? | Yes, estimates of total as well as annual and average annual emission reductions in tonnes of $CO_2$ equivalent are provided according to calculated values provided to | OK | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | | the verifier in table of calculations. | | |
| **Project approvals by Parties** | | | | |
| 19 | Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals? | **FAR 01.** The project has no approval of the host Party and from the government of the county – buyer of emission reduction units.<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 to the list of sources of reference information.<br>The Letter of Approval of the the county – buyer of emission reduction units is also not obtained at this stage of the project.<br>**FAR 01** will be closed after the Letters of Approval are issued by the Parties involved.<br>**CL 01.** Please explain why the Letter of Approval from the other Party can not be obtained at the moment.<br>**CAR 09** Please provide information when a Letter of Endorsement for the Joint Implementation project was issued by the State Environmental Investment Agency. | **FAR 01**<br>**CL 01**<br>**CAR 09** | Pending<br>OK<br>OK |
| 19 | Does the PDD identify at least the host Party as a "Party involved"? | Yes, Ukraine which is the host Party, is indicated as the Party involved. | OK | OK |
| 19 | Has the DFP of the host Party issued a written project approval? | Please refer to **FAR 01.** | **FAR 01** | Pending |
| 20 | Are all the written project approvals by Parties involved unconditional? | Please refer to **FAR 01.** | **FAR 01** | Pending |
| **Authorization of project participants by Parties involved** | | | | |
| 21 | Is each of the legal entities listed as project | Pending. Please refer to **FAR 01** | **FAR 01** | Pending |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | 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? | | | |
| **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 | Yes, the chosen baseline is described. The chosen baseline is described in section A.1. and section B.1 of the PDD. A specific JI approach is used for setting the baseline. | OK | OK |
| **JI specific approach only** | | | | |
| 23 | Does the PDD provide a detailed theoretical description in a complete and transparent manner? | The choice of the baseline used for the project category is sufficiently justified. A detailed theoretical description is presented in the section B.1. of the PDD version 03 | OK | 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 | Only two options of initial terms can be considered as possible and reliable alternatives for the Project:<br>1: The continuation of the current situation of leaks detection and repair;<br>2: the Project will be implemented without the use of the JI mechanism.<br>Arguments that are presented in the PDD version 03 | OK | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | 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>(d) 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 contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate? | (see Section B.2) prove that the continuation of the current situation of leaks detection and repair is the most plausible scenario of development on condition of absence of the Project. | | |
| 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? | Yes, selected elements or combinations of approved methodologies were used for baseline setting.<br>The basic assumptions of the developed JI specific approach are clearly described in full in Section B.1 of PDD version 03. | OK | OK |
| 25 | If a multi-project emission factor is used, does the PDD provide appropriate justification? | N/A | N/A | N/A |
| **Approved CDM methodology approach only** | | | | |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| 26 (a) | Does the PDD provide the title, reference number and version of the approved CDM methodology used? | N\A | N\A | N\A |
| 26 (a) | Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)? | N\A | N\A | N\A |
| 26 (b) | Does the PDD provide a description of why the approved CDM methodology is applicable to the project? | N\A | N\A | N\A |
| 26 (c) | Are all explanations, descriptions and analyses pertaining to the baseline in the PDD made in accordance with the referenced approved CDM methodology? | N\A | N\A | N\A |
| 26 (d) | Is the baseline identified appropriately as a result? | N\A | N\A | N\A |
| **Additionality** | | | | |
| **JI specific approach only** | | | | |
| 28 | Does the PDD indicate which of the following approaches for demonstrating additionality is used?<br>(a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is | Additionality of the project activity is demonstrated and assessed using the "Tools for the demonstration and assessment of additionality" (Version 05.2).<br><br>**CL 02.** Please explain how technological barriers may hinder the project implementation. | **CL 02** | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals;<br>(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". | | | |
| 29 (a) | Does the PDD provide a justification of the applicability of the approach with a clear and transparent description? | **CAR 10.** Please provide a justification of the approach chosen. | **CAR 10** | OK |
| 29 (b) | Are additionality proofs provided? | Additionality of the project is proved by the use of the barrier analysis provided by the "Tool for the demonstration and assessment of additionality" in the 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 a baseline scenario is clearly demonstrated in sections A.2, B.1, B.2 . | OK | OK |
| 30 | If the approach 28 (c) is chosen, are all explanations, descriptions and analyses | All explanations, descriptions and analyses are made in accordance with the latest version of "Tools for the | OK | OK |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | made in accordance with the selected tool or method? | demonstration and assessment of additionality". (Version 05.2) | | |
| **Approved CDM methodology approach only** | | | | |
| 31 (a) | Does the PDD provide the title, reference number and version of the approved CDM methodology used? | N\A | N\A | N\A |
| 31 (b) | Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the project? | N\A | N\A | N\A |
| 31 (c) | Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology? | N\A | N\A | N\A |
| 31 (d) | Are additionality proofs provided? | N\A | N\A | N\A |
| 31 (e) | Is the additionality demonstrated appropriately as a result? | N\A | N\A | N\A |
| **Project boundary (applicable except for JI LULUCF projects** | | | | |
| **JI specific approach only** | | | | |
| 32 (a) | Does the project boundary defined in the PDD encompass all anthropogenic emissions<br>by sources of GHGs that are:<br>(i) Under the control of the project participants?<br>(ii) Reasonably attributable to the project?<br>(iii) Significant? | The project boundary is delineated by the physical, geographical location of PJSC "Vinnitsagaz" project equipment and encompass all anthropogenic emissions by sources of greenhouse gases (GHG) that are:<br><br>(i) Under the control of the project participants, such as:<br>- leaks at gas equipment (reducing gears, valves, filters etc.) of gas- | OK | OK |

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| | | distribution points (cabinet-type gas-distribution points);<br>ii) Reasonably attributable to the project, such as:<br>- leaks at gas fittings (faucets, bolts etc.), threaded and flanged connections that are located at gas-distribution networks of PJSC «Vinnitsagaz».<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 as appropriate? | Yes, the delineation of the project boundary and the gases and sources included are appropriately described and justified by using figures wherein the project boundary for the baseline and project scenario is demonstrated in detail.<br>**CAR 11**. Please provide Figure 4, wherein project boundary is indicated in English language in the English version of the PDD. | **CAR 11** | OK |

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| 32 (d) | Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified? | The project boundary includes:<br>- leaks at gas equipment (reducing gears, valves, filters etc.) of gas-distribution points (cabinet-type gas-distribution points);<br>- leaks at gas fittings (faucets, bolts etc.), threaded and flanged connections that are located at gas-distribution networks of PJSC «Vinnitsagaz». | OK | OK |
| **Approved CDM methodology approach only** | | | | |
| 33 | Is the project boundary defined in accordance with the approved CDM methodology? | The JI special approach is used. This section is not applicable. | N/A | N/A |
| **Crediting period** | | | | |
| 34 (a) | Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began? | The PDD states the starting date of the project as the date on which Moston Properties Limited and PJSC "Vinnitsagaz" signed the Memorandum of Understanding, and the starting date is 29/08/2006 which is after the beginning of 2000. | OK | OK |
| 34 (a) | Is the starting date after the beginning of 2000? | Yes, see above | OK | OK |
| 34 (b) | Does the PDD state the expected operational lifetime of the project in years and months? | The PDD states the expected operational lifetime of the project in years and months, which is 11 years and 4 months or 136 months (from September 7, 2006 to December 31, 2017). | OK | OK |
| 34 (c) | Does the PDD state the length of the crediting period in years and months? | The JI project refers to the first commitment period and lasts for 5 years/60 months (January 01, 2008 – December 31, 2012).<br>The date on which the first measures under the project | - | OK |

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| | | were implemented at PJSC "Vinnitsagaz" gas pipelines was taken as the starting date of the crediting period, namely September 7, 2006.<br>If after the first commitment period under the Kyoto Protocol its validity is prolonged, the crediting period under the project will be prolonged by 5 years/60 months (January 01, 2013-December 31, 2017).<br>The end of the crediting period will be the final date of commitments to the buyer under the purchase and sales contract, under which the project owner must deliver to the buyer verified greenhouse gases anthropogenic emission reductions resulting from this project, namely December 31, 2017. | | |
| 34 (c) | Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project? | The crediting period starts after the first operation of the project, i.e. after the first emission reductions by the project. | 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? | Please see above 34 (b) | 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 | 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. | OK | OK |

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| | separately for those until 2012 and those after 2012? | | | |
| **Monitoring plan** | | | | |
| 35 | Does the PDD explicitly indicate which of the following approaches is used?<br>− JI specific approach<br>− Approved CDM methodology approach | The monitoring plan was developed by using a JI specific approach and the "Guidance on Criteria for baseline setting and monitoring". | OK | OK |
| **JI specific approach only** | | | | |
| 36 (a) | Does the monitoring plan describe:<br>− All relevant factors and key characteristics that will be monitored?<br>− The period in which they will be monitored?<br>− All decisive factors for the control and reporting of project performance? | After detection and measuring of methane leaks the monitoring program was worked out for all GDP (CGDP) gas equipment, shut-off and control valves, flanged and threaded connections of gas pipelines of PJSC “Vinnitsagaz”. Implementation of such program is a part of the project activity. The monitoring embraces both emissions from the sources of leaks that are detected again and control over the already repaired gas equipment, whereat methane leaks were detected before.<br>Within the framework of the JI Project the working team of PJSC “Vinnitsagaz” made the Register of gas-distribution points and gas fittings of the JI project (see the Accompanying document 1), that includes complete information about all GDPs (CGDPs), shut-off and control valves, flanged and threaded connections that are included in the Project boundary.<br>All relevant data related to the calculation of methane leaks are kept in an electronic database. Every monitoring report will include all necessary information | OK | OK |

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| | | from this database. | | |
| 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 indicators, constants and variables used are reliable, valid; they are described in the PDD Section D in a transparent manner.<br>**CL 03.** Please clarify whether the data necessary for determination will be stored after the last transfer of ERUs under the project. | **CL 03** | OK |
| 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? | **CAR 12.** Please correct for parameter "Global warming potential" that it is an estimated but not calculated parameter as it is taken from IPCC. | **CAR 12** | 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? | Yes, all necessary information is included in the monitoring plan. | 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 13.** Please, number all formulae in Section D of the PDD.<br>**CAR 14.** Please provide all the values of emission reductions in tonnes of $CO_2$ equivalent in the PDD. | **CAR 13**<br>**CAR 14** | OK<br>OK |

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| 36 (b) (iii) | For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable? | See 36 (a) above | OK | OK |
| 36 (b) (iv) | Are International System Unit (SI units) used? | SI units are used. | OK | OK |
| 36 (b) (v) | Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring? | N/A | OK | OK |
| 36 (b) (v) | Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan? | Yes, the use of parameters, coefficients, variables, etc. is 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"? | Yes, the monitoring plan draw on standard variables contained in appendix B of "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 monitored throughout the crediting period, but are determined only once (and thus | **CAR 15.** The monitoring plan must 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 monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at | **CAR 15** | OK |

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| | remain fixed throughout the crediting period), but that are not already available at the stage of determination?<br>(iii) Data and parameters that are monitored throughout the crediting period? | the stage of determination?<br>(iii) Data and parameters that are monitored throughout the crediting period.<br>Please provide appropriate information. | | |
| 36 (e) | Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording? | **CAR 16**. Please explain the fact that, the global warming potential, which has to be monitored throughout the crediting period is not represented in the file of the calculation of emission reductions (Excel spreadsheets).<br>**CAR 17.** Please provide information on replacement and monitoring of equipment. | **CAR 16**<br>**CAR 17** | OK<br>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, leak, 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 given in Section D.1.4. | 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? | Yes | OK | OK |
| 36 (f) (iii) | Are all equations numbered? | Yes. **CAR 13** | OK | OK |
| 36 (f) (iv) | Are all variables, with units indicated defined? | Yes | OK | OK |
| 36 (f) (v) | Is the conservativeness of the algorithms/procedures justified? | Yes | OK | OK |

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| 36 (f) (v) | To the extent possible, are methods to quantitatively account for uncertainty in key parameters included? | Yes | 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? | Yes | OK | OK |
| 36 (f) (vii) | Are any parts of the algorithms or formulae that are not self-evident explained? | Yes | OK | OK |
| 36 (f) (vii) | Is it justified that the procedure is consistent with standard technical procedures in the relevant sector? | Yes | OK | OK |
| 36 (f) (vii) | Are references provided as necessary? | Yes | OK | OK |
| 36 (f) (vii) | Are implicit and explicit key assumptions explained in a transparent manner? | Yes | OK | OK |
| 36 (f) (vii) | Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed? | Yes | 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? | Yes | OK | OK |
| 36 (g) | Does the monitoring plan identify a national or international monitoring standard if such | N/A | N\A | N\A |

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| | standard has to be and/or is applied to certain aspects of the project?<br>Does the monitoring plan provide a reference as to where a detailed description of the standard can be found? | | | |
| 36 (h) | Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner? | Please refer to section D.2 of the PDD | OK | OK |
| 36 (i) | Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request? | Please refer to section D.2 of the PDD | OK | OK |
| 36 (j) | Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities? | Information on monitoring of greenhouse gas emissions according to the baseline and project scenario shall be archived and stored as electronic and hard copies and will be at disposal of a person responsible for project monitoring.<br>Detailed operational and management structures are given in the PDD. | OK | OK |
| 36 (k) | Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type?<br>If it is a JI LULUCF project, is the good practice guidance developed by IPCC | Please refer to section D.3 of the PDD | OK | OK |

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| | applied? | | | |
| 36 (l) | Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations? | Yes, the monitoring plan provides, in tabular form, a complete compilation of the monitoring parameters; the format of tables is in line with the requirements of Guidelines for users of the JI PDD form | OK | OK |
| 36 (m) | Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project? | Yes, it is indicated that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project | OK | OK |
| 37 | If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above? | Yes, selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan. The selected elements or combination, together with elements supplementary developed by the project participants are in line with 36 above | OK | OK |
| **Approved CDM methodology approach only** | | | | |
| 38 (a) | Does the PDD provide the title, reference number and version of the approved CDM methodology used? | The JI specific approach is used; this section is not applicable. | N\A | N\A |
| 38 (a) | Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the | N\A | N\A | N\A |

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| | methodology still within the grace period (was the methodology revised to a newer version in the past two months)? | | | |
| 38 (b) | Does the PDD provide a description of why the approved CDM methodology is applicable to the project? | N\A | N\A | N\A |
| 38 (c) | Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology? | N\A | N\A | N\A |
| 38 (d) | Is the monitoring plan established appropriately as a result? | N\A | N\A | N\A |
| **Applicable to both JI specific approach and approved CDM methodology approach** | | | | |
| 39 | If the monitoring plan indicates overlapping monitoring periods during the crediting period:<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 monitored for another component)?<br>(c) Does the monitoring plan ensure that monitoring is performed for all components | The monitoring plan doesn't indicate any overlapping monitoring periods during the crediting period. | N\A | N\A |

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| | and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met?<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? | Leakage is not foreseen | OK | OK |
| 40 (b) | Does the PDD provide a procedure for an ex ante estimate of leakage? | See 40 (a) above | See 40 (a) above | OK |
| **Approved CDM methodology approach only** | | | | |
| 41 | Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology? | The JI specific approach is used; this section is not applicable. | N\A | N\A |
| **Estimation of emission reductions or enhancements of net removals** | | | | |
| 42 | Does the PDD indicate which of the following approaches it chooses?<br>(a) Assessment of emissions or net removals in the baseline scenario and in the project scenario | Assessment of emissions in the baseline scenario and in the project scenario is used, which corresponds to variant 1 of the monitoring; thus approach 42 (a) is used. | OK | OK |

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| | (b) Direct assessment of emission reductions | | | |
| 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? | To estimate baseline, project emissions and emission reductions approach 42 (a) is used.<br>PDD provides ex ante estimates of:<br>(a) Emissions for the project scenario (Section E.1);<br>(b) Leakage (Section E.2);<br>(c) Emissions for 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) Emission reductions or enhancements of net removals (within the project boundary)?<br>(b) Leakage, as applicable?<br>(c) Emission reductions or enhancements of net removals adjusted by leakage? | N/A | N\A | N\A |
| 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? | Yes, all the estimates are provided on an annual basis, from the beginning until the end of the crediting period, on a source by source basis, for each GHG, in tones of $CO_2$ equivalent,<br>The formulae used in the calculations, are consistent throughout the PDD.<br>**CAR 18.** Please provide emission reductions | **CAR 18**<br>**CAR 19** | OK<br>OK |

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| | (iv) For each GHG?<br>(v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol?<br>(b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD?<br>(c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate?<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 | calculation in English language.<br>**CAR 19.** In the section E.6, please provide total values for the period of 2013-2017. | | |

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| | 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 crediting period by the total months of the crediting period and multiplying by twelve? | | | |
| 46 | If the calculation of the baseline emissions or<br>net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation? | N/A | N\A | N\A |
| **Approved CDM methodology approach only** | | | | |
| 47 (a) | Is the estimation of emission reductions or enhancements of net removals made in accordance with the approved CDM methodology? | The JI specific approach is used; this section is not applicable. | N\A | N\A |
| 47 (b) | Is the estimation of emission reductions or enhancements of net removals presented in the PDD:<br>− On a periodic basis?<br>− At least from the beginning until the end of the crediting period?<br>− On a source-by-source/sink-by-sink basis?<br>− For each GHG? | N\A | N\A | N\A |

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| | − In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol?<br>− Are the formula used for calculating the estimates consistent throughout the PDD?<br>− Are the estimates consistent throughout the<br>PDD?<br>− Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve? | | | |
| **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? | According to the ecological norms of Ukraine the emissions of natural gas into the atmosphere are not pollutants. Therefore no ecological permissions on transportation and supply of natural gas are needed. The only influence on environment by the project implementation is reduction of natural gas emissions into the atmosphere.<br>Implementation of this project will allow for promoting safety of exploitation of gas-distribution networks that will decrease probability of explosions or fires. | OK | OK |

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| | | Transboundary influence of the project activity, in accordance with their determination in text of the "Convention on long range transboundary air pollution", ratified by Ukraine, will not occur.<br>The Project activity does not cause any harmful influence to the environment. | | |
| 48 (b) | If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party? | Refer to 48 (a) | OK | OK |
| **Stakeholder comments** | | | | |
| 49 | If stakeholder consultation was undertaken in<br>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? | Consultations were conducted with the specialists of Institute of General Energy of NAS of Ukraine. Comments from Parties concerned were not received. The project activity does not provide for any negative influence on the environment and negative social effect. | OK | OK |
| **Determination regarding small-scale projects (additional elements for assessment)** | | | | |
| 50 | Does the PDD appropriately specify and | N\A | N\A | N\A |

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| | justify the SSC project type(s) and category(ies) that fall under:<br>(a) One of the types and thresholds of JI SSC projects as defined in .Provisions for joint implementation small-scale projects.? If the project contains more than one JI SSC project type component, does each component meet the relevant threshold criterion?<br>(b) One of the SSC project categories defined in the most recent version of appendix B of annex II to decision 4/CMP.1, or an additional project category approved by<br>the JISC in accordance with the relevant provision in “Provisions for joint implementation small-scale projects”? | | | |
| 51 | Does the SSC PDD confirms and shows that the proposed JI SSC project is not a debundled component of a large project by explaining that there does not exist a JI (SSC) project with a publicly available determination in accordance with paragraph 34 of the JI guidelines:<br>(a) Which has the same project participants; and<br>(b) Which applies the same technology/measure and pertains to the | N\A | N\A | N\A |

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| | same project category; and<br>(c) Whose determination has been made publicly available in accordance with paragraph 34 of the JI guidelines within the previous 2 years; and<br>(d) Whose project boundary is within 1 km of the project boundary of the proposed JI SSC project at the closest point? | | | |
| **Applicable to bundled JI SSC projects only** | | | | |
| 52 (a) | Do all projects in the bundle:<br>(i) Have the same crediting period?<br>(ii) Comply with the provisions for JI SSC projects defined in "Provisions for joint implementation small-scale projects", in particular the thresholds referred to in 50 (a) above?<br>(iii) Retain their distinctive characteristics (i.e. location, technology/measure etc.)? | N\A | N\A | N\A |
| 52 (b) | Does the composition of the bundle not change over time? | N\A | N\A | N\A |
| 52 (c) | Has the AIE received (from the project participants):<br>(i) Information on the bundle using the form developed by the JISC (F-JI-SSCBUNDLE)?<br>(ii) A written statement signed by all project participants indicating that they agree that their individual projects are part of the | N\A | N\A | N\A |

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| | bundle and nominating one project participant to represent all project participants in communicating with the JISC?<br>(iii) Indication by the Parties involved that they are aware of the bundle in their project approvals referred to in 19 above? | | | |
| 53 | If the project participants prepared a single SSC PDD for the bundled JI SSC projects, do(are) all the projects:<br>(a) Pertain to the same JI SSC project category?<br>(b) Apply the same technology or measure?<br>(c) Located in the territory of the same host Party? | N\A | N\A | N\A |
| 54 | If the project participants prepared separate SSC PDDs for the bundled JI SSC projects, do(are) all the projects:<br>(a) Have SSC PDDs been prepared for all JI<br>SSC projects in the bundle?<br>(b) Does each SSC PDD contain a single JI SCC project in the bundle? | N\A | N\A | N\A |
| 55 | If the projects in the bundle use the same baseline, does the F-JI-SSC-BUNDLE provide an appropriate justification for the use of the same baseline considering the | N\A | N\A | N\A |

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| | particular situation of each project in the bundle? | | | |
| 56 | Does the PDD indicate which of the following approaches is used for establishing a monitoring plan?<br>(a) By preparing a separate monitoring plan for each of the constituent projects;<br>(b) By preparing an overall monitoring plan including a proposal of monitoring of performance of the constituent projects on a sample basis, as appropriate. | N\A | N\A | N\A |
| 56 (b) | If the approach 57 (b) above is used,<br>(i) Are all the JI SSC projects located in the territory of the same host Party?<br>(ii) Do all the JI SSC projects pertain to the same project category?<br>(iii) Do all the JI SSC projects apply the same technology or measure?<br>(iv) Does the overall monitoring plan reflect good monitoring practice appropriate to the bundled JI SSC projects and provide for collection and archiving of the data needed to calculate the emission reductions achieved by the bundled projects? | N\A | N\A | N\A |
| **Applicable to all JI SSC projects** | | | | |
| 57 | Is the leakage only within the boundaries of non-Annex I Parties considered? | N\A | N\A | N\A |
| **Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment)** | | | | |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| 58 | Does the PDD appropriately specify how the LULUCF project conforms to:<br>(a) The definitions of LULUCF activities included in paragraph 1 of the annex to decision 16/CMP.1, applying good practice guidance for LULUCF as decided by the CMP, as appropriate?<br>(b) In the case of afforestation, reforestation and/or forest management projects, the definition of "forest" selected by the host Party, which specifies:<br>(i) A single minimum tree crown cover value (between 10 and 30 per cent)? and<br>(ii) A single minimum land area value (between 0.05 and 1 hectare)? and<br>(iii) A single minimum tree height value (between 2 and 5 metres)? | N\A | N\A | N\A |
| **JI specific approach only** | | | | |
| 59 | Baseline setting - in addition to 22-26 above Does the PDD provide an explanation how the baseline chosen:<br>− Takes into account the good practice guidance for LULUCF, developed by the IPCC?<br>− Ensures conformity with the definitions, accounting rules, modalities and guidelines under Article 3, paragraphs 3 and 4, of the Kyoto Protocol? | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| 60 | Project boundary - alternative to 32-33<br>(a) Does the project boundary geographically delineate the JI LULUCF project under the control of the project participants?<br>(a) If the JI LULUCF project contains more than one discrete area of land,<br>(i) Does each discrete area of land have a unique geographical identification?<br>(ii) Is the boundary defined for each discrete area?<br>(ii) Does the boundary not include the areas in between these discrete areas of land?<br>(b) Does the project boundary encompass all anthropogenic emissions by sources and removals by sinks of GHGs which are:<br>(i) Under the control of the project participants;<br>(ii) Reasonably attributable to the project; and<br>(iii) Significant?<br>(c) Does the project boundary account for all changes in the following carbon pools:<br>− Above-ground biomass;<br>− Below-ground biomass;<br>− Litter;<br>− Dead wood; and<br>− Soil organic carbon? | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| | (c) Does the PDD provide:<br>(i) The information of which carbon pools are selected?<br>(ii) If one or more carbon pools are not selected, transparent and verifiable information that indicates, based on conservative assumptions, that the pool is not a source?<br>(d) Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria in (b) above? | | | |
| 61 (a) | Project boundary - alternative to 32-33 (cont.)<br>Are the delineation of the project boundary and the gases and sources/sinks included appropriately described and justified in the PDD? | N\A | N\A | N\A |
| 61 (b) | Project boundary - alternative to 32-33 (cont.)<br>Are all gases and sources/sinks included explicitly stated, and the exclusions of any sources/sinks related to the baseline or the LULUCF project appropriately justified? | N\A | N\A | N\A |
| 62 | Monitoring plan - in addition to 35-39 Does the PDD provide an appropriate description of the sampling design that will be used for the calculation of the net anthropogenic removals by sinks occurring within the | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
|---|---|---|---|---|
| | project boundary in the project scenario and, in case the baseline is monitored, in the baseline scenario, including, inter alia, stratification, determination of number of plots and plot distribution etc.? | | | |
| 63 | Does the PDD take into account only the increased anthropogenic emissions by sources and/or reduced anthropogenic removals by sinks of GHGs outside the project boundary? | N\A | N\A | N\A |
| **Approved CDM methodology approach only** | | | | |
| 64 (a) | Does the PDD provide the title, reference number and version of the approved CDM methodology used? | N\A | N\A | N\A |
| 64 (a) | Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)? | N\A | N\A | N\A |
| 64 (b) | Does the PDD provide a description of why the approved CDM methodology is applicable to the project? | N\A | N\A | N\A |
| 64 (c) | Are all explanations, descriptions and analyses made in accordance with the referenced approved CDM methodology? | N\A | N\A | N\A |
| 64 (d) | Are the baseline, additionality, project boundary, monitoring plan, estimation of | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| | enhancements of net removals and leakage established appropriately as a result? | | | |
| **Determination regarding programmes of activities (additional/alternative elements for assessment)** | | | | |
| 66 | Does the PDD include:<br>(a) A description of the policy or goal that the JI PoA seeks to promote?<br>(b) A geographical boundary for the JI PoA (e.g. municipality, region within a country, country or several countries) within which all JPAs included in the JI PoA will be implemented?<br>(c) A description of the operational and management arrangements established by the coordinating entity for the implementation of the JI PoA, including:<br>− The maintenance of records for each JPA?<br>− A system/procedure to avoid double counting (e.g. to avoid including a new JPA that has already been determined)?<br>− Provisions to ensure that persons operating JPAs are aware and have agreed to their activity being added to the JI PoA?<br>(d) A description of each type of JPAs that will be included in the JI PoA, including the technology or measures to be used? | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| | (e) The eligibility criteria for inclusion of JPAs to the JI PoA for each type of JPA in the JI PoA? | | | |
| 67 | *Project approvals by Parties involved - additional to 19-20*<br>Are all Parties partly or entirely within the geographical boundary for the JI PoA listed as "Parties involved" and indicated as host Parties in the PDD? | N\A | N\A | N\A |
| 68 | *Authorization of project participants by Parties involved - additional to 21*<br>Is the coordinating entity presented in the PDD authorized by all host Parties to coordinate and manage the JI PoA? | N\A | N\A | N\A |
| 69 | *Baseline setting - additional to 22-26*<br>Is the baseline established for each type of JPA? | N\A | N\A | N\A |
| 70 | *Additionality - additional to 27-31*<br>Does the PDD indicate at which of the following levels that additionality is demonstrated?<br>(a) For the JI PoA<br>(b) For each type of JPA | N\A | N\A | N\A |
| 71 | *Crediting period - additional to 34*<br>Is the starting date of the JI PoA after the beginning of 2006 (instead of 2000)? | N\A | N\A | N\A |
| 72 | *Monitoring plan - additional to 35-39*<br>Is the monitoring plan established for each | N\A | N\A | N\A |

| DVM Paragraph | Check Item | Initial finding | Draft Conclusion | Final Conclusion |
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| | technology and/or measure under each type of JPA included in the JI PoA? | | | |
| 73 | Does the PDD include a table listing at least one real JPA for each type of JPA? | N\A | N\A | N\A |
| 73 | For each real JPA listed, does the PDD provide the information of:<br>(a) Name and brief summary of the JPA?<br>(b) The type of JPA?<br>(c) A geographical reference or other means of identification?<br>(d) The name and contact details of the entity/individual responsible for the operation of the JPA?<br>(e) The host Party(ies)?<br>(f) The starting date of the JPA?<br>(g) The length of the crediting period of the JPA?<br>(h) Confirmation that the JPA meets all the eligibility requirements for its type, including a description of how these requirements are met?<br>(i) Confirmation that the JPA has not been determined as a single JI project or determined under a different JI PoA? | N\A | N\A | N\A |

**Table 2 Resolution of Corrective Action and Clarification Requests**

| Draft report clarifications and corrective action requests by validation team | Ref. to checklist question in table 1 | Summary of project participant response | Determination team conclusion |
|---|---|---|---|
| **FAR 01.** The project has no approval of the host Party and from the government of the county – buyer of emission reduction units. | 19 | The project is implemented as a bilateral JI project. The host country is Ukraine, the country – buyer is Switzerland.<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 to the list of sources of reference information.<br>The Letter of Approval of the government of Switzerland as the county – buyer of emission reduction units is also not obtained at this stage of the project. | **FAR 01** will be closed after the Letters of Approval are issued by the Parties involved. |

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| **CAR 01.** Please, provide more detailed information about the history of the project (incl. its JI component). | - | A Memorandum of Understanding relating to the JI project was signed on August, 29, 2006 between the companies Moston Properties Limited (Great Britain) and PJSC "Vinnitsagaz". This document stipulates that Moston Properties Limited develops the monitoring program of emissions and JI Project Design Document (PDD).<br>September 2006 – beginning of inspection and repair works of GDP (CGDP) gas equipment and gas fittings, flanged and threaded joints of gas-distribution networks of PJSC "Vinnitsagaz".<br>December 2010 - Moston Properties Limited acting with the knowledge of PJSC "Vinnitsagaz" transferred all its rights and obligations under the Memorandum of Understanding relating to the JI project to CEP Carbon Emissions Partners S.A. (Switzerland); on this basis emission reductions purchase agreement relating to the JI project was signed between CEP Carbon Emissions Partners S.A. and PJSC "Vinnitsagaz" on December 16, 2010.<br>Chronology of events that occurred during the early development of the JI projects at the enterprise is presented in Section A.2 of the PDD. | Information about the history of the project is provided in Section A.2. of the PDD version 03. The issue is closed. |

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| **CAR 02.** Please provide all the documentation that proves implementation schedule dates. | - | The following documents were provided:<br>1. A Memorandum of Understanding relating to the JI project dated August, 29, 2006 between the companies Moston Properties Limited (Great Britain) and PJSC “Vinnitsagaz”.<br>2. Emission reductions purchase agreement relating to the JI project between CEP Carbon Emissions Partners S.A. and PJSC "Vinnitsagaz" dated December 16, 2010.<br>3. Letter of Endorsement # 2457/23/7 of the JI project issued by the State Environmental Investment Agency dated 08/09/2011.<br>4. The PDD version 01 as of September 7, 2006.<br>5. Order #291 on changes of the structure of the Working team responsible for control over natural gas leaks at equipment of gas distribution networks and elimination of natural gas leaks in the framework of the JI project dated 27/07/2011 | The documents were provided. The issue is closed. |

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| **CAR 03.** Please provide the project implementation schedule, indicate start and end dates of work for each milestone of the project. | - | The project implementation schedule that indicates milestones and periods of implementation, is provided in the PDD version 03. | The issue is closed, the information was verified. |
| **CAR 04.** Please provide references to manufacturers of the equipment to be used in the project. | - | References to manufacturers of the equipment to be used in the project are provided in the PDD version 03. | References were verified, the issue is closed. |

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| **CAR 05.** Please provide information as to quantitative indicators of project activities for each measure. | - | The project provides for:<br>1. Introduction and implementation of PETM, repair (replacement) of gas equipment at 157 GDPs (CGDPs) and 450 units of gas fittings (September – December 2006)<br>2. Implementation of PETM, repair (replacement) of gas equipment at 630 GDPs (CGDPs) and 820 units of gas fittings (January–December 2007)<br>3. Implementation of PETM, repair (replacement) of gas equipment at 631 GDPs (CGDPs) and 1821 units of gas fittings (January – December 2008)<br>4. Implementation of PETM, repair (replacement) of gas equipment at 158 GDPs (CGDPs) and 460 units of gas fittings (January – December 2009)<br>5. Continuation of PETM, regular monitoring observations and measurements of GDP (CGDP) gas equipment and gas fittings of gas pipelines that have already been repaired, repair of leaks at equipment that has been repaired, if such leaks occur (January 2010-December 2017). | Information was verified, the issue is closed. |

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| **CAR 06.** The PDD specifies duration of the crediting period of 12 years, and the calculations are provided only for 7 years. Please make the appropriate corrections. | - | See corrected PDD version 03 | The issue is closed. |
| **CAR 07.** Please provide the data for 2013-2017 in one table. | - | Data are provided in one table of the PDD version 03. | The issue is closed. |
| **CAR 08.** Please indicate the same start date of the crediting period because in two different abstracts two different date are indicated. | - | The date on which the first measures under the project were implemented at PJSC “Vinnitsagaz” gas pipelines was taken as the starting date of the crediting period, namely September 7, 2006. | Corrections were made. The issue is closed. |
| **CAR 09** Please provide information when a Letter of Endorsement for the Joint Implementation project was issued by the State Environmental Investment Agency. | 19 | The project has already obtained endorsement of the Ukrainian government, namely the Letter of Endorsement №2457/23/7 issued by the State Environmental Investment Agency of Ukraine dated 08/09/2011. | The issue is closed. |
| **CAR 10.** Please provide a justification of the approach chosen. | 29 (a) | See corrected PDD version 03 | The issue is closed. |
| **CAR 11**. Please provide Figure 4, wherein project boundary is indicated in English language in the English version of the PDD. | 32 (c) | Corrections were made in the PDD version 03 | The issue is closed. |

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| **CAR 12.** Please correct for parameter “Global warming potential” that it is an estimated but not calculated parameter as it is taken from IPCC. | 36 (b) | According to the parameters that are subject to monitoring at page 15 of the methodology AM0023 version 3.0, the "Global warming potential" is calculated, not estimated. Corrections were made. | The issue is closed. |
| **CAR 13.** Please, number all formulae in Section D of the PDD. | 36 (b) (ii) | The formulae were numbered. | The issue is closed. |
| **CAR 14.** Please provide all the values of emission reductions in tonnes of $CO_2$ equivalent in the PDD. | 36 (b) (ii) | Corrections were made. | The issue is closed. |
| **CAR 15.** The monitoring plan must 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 monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination?<br>(iii) Data and parameters that are monitored throughout the crediting period.<br>Please provide appropriate information. | 36 (d) | Data and parameters were provided in Section D.1. of the PDD version 03. | Corrections were made. The issue is closed. |

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| **CAR 16**. Please explain the fact that, the global warming potential, which has to be monitored throughout the crediting period is not represented in the file of the calculation of emission reductions (Excel spreadsheets). | 36 (e) | Corrections were made in the file of emission reductions calculation (Excel spreadsheet) | The issue is closed. |
| **CAR 17.** Please provide information on replacement and monitoring of equipment. | 36 (e) | Information was provided in Section D of the PDD version 03. | The issue is closed. |
| **CAR 18.** Please provide emission reductions calculation in English language. | 45 | Accompanying document 2 was provided in English. | The issue is closed. |
| **CAR 19.** In the section E.6, please provide total values for the period of 2013-2017. | 45 | See corrected PDD version 03. | The issue is closed. |
| **CL 01.** Please explain why the Letter of Approval from the other Party can not be obtained at the moment. | 19 | According to the procedure of the Federal Office for the Environment of Switzerland letters of approval are issued on the 25$^{th}$ and 27$^{th}$ days of the month.<br>If documents are given after the 10$^{th}$ day of the month a letter of approval can be obtained on 25-27 days of the next month. The package of documents relating to this project was provided after the 10th day of the month. | The issue is closed. |
| **CL 02.** Please explain how technological barriers may hinder the project implementation. | 28 | Barrier analysis is provided in Section B.2. of the PDD version 03. | The issue is closed. |

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| **CL 03.** Please clarify whether the data necessary for determination will be stored after the last transfer of ERUs under the project. | 36 (b) | Data to be monitored and required for determination and subsequent verification will be archived and stored in the company for two years after the transfer of emission reduction units generated by the project. | Explanations are accepted the issue is closed. |