

# VERIFICATION REPORT CEP CARBON EMISSIONS PARTNERS S.A.

# VERIFICATION OF THE JI PROJECT

IMPLEMENTATION OF MEASURES ON REDUCTION OF ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS AT «ICE «Tekhnogaz» LLC

First periodic

REPORT No. UKRAINE-VER/0828/2012

REVISION No. 02

for the period 01/01/2008 - 30/06/2012

BUREAU VERITAS CERTIFICATION



#### VERIFICATION REPORT

Date of first issue: 03/12/2012	Organizational unit: Bureau Veritas Certification
	Holding SAS
Client:	Client ref.:
CEP CARBON EMISSIONS	Fabian Knodel

Summary:

Bureau Veritas Certification has made the first periodic verification for the period from January 1, 2008 to June 30, 2012 of the "Implementation of measures on reduction of energy consumption and greenhouse gas emissions at «ICE «Tekhnogaz» LLC project of CEP CARBON EMISSIONS PARTNERS S.A., located in Vinnitsa city, Vinnitsa region, Ukraine, and applying JI specific approach, 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 (but for the crediting period) 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 verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against 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 verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CR, CAR and FAR), presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. Installed equipment that is essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated without material errors and the ERUs issued totalize 2 484 103 tonnes of CO2 equivalent for the monitoring period from 01/01/2008 to 30/06/2012.

Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring plan, and its associated documents.

Report No.:	Subject Group:		
UKRAINE-ver/0828/2012	JI		
Project title: Implementation of measures consumption and greenhous «Tekhnogaz» LLC	The state of the s		
			*
Oleg Skoblyk – Team Le Lead Verifier	ader, Climate Change		
Work reviewed by: Ivan Sokolov - Internal To Vyacheslav Yeromin – To	echnical Reviewer echnical expert		No distribution without permission from the Client or responsible organizational unit
Work approved by: Ivan Sokolov - Operation	al Manager		Limited distribution
Date of this revision: Rev. No 05/12/2012 02	Burea Number of pages (1) in 29 Holding SAC	ation	Unrestricted distribution



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**VERIFICATION REPORT** 

#### 1 INTRODUCTION

CEP CARBON EMISSIONS PARTNERS S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Implementation of measures on reduction of energy consumption and greenhouse gas emissions at «ICE «Tekhnogaz» LLC" (hereafter called "the project") located in Vinnitsa city, Vinnitsa region, Ukraine.

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

The verification covers the period from January 1, 2008 to June 30, 2012.

#### 1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

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

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.



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#### 1.3 Verification Team

The verification team consists of the following personnel:

Oleg Skoblyk

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

This verification report was reviewed by:

Ivan Sokolov Bureau Veritas Certification, Internal Technical Reviewer

Vyacheslav Yeromin Bureau Veritas Certification, Technical expert

#### 2 METHODOLOGY

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

In order to ensure transparency, a verification 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 verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

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

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

#### 2.1 Review of Documents

The Monitoring Report (MR) submitted by CEP CARBON EMISSIONS PARTNERS S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology, Determination Report of the project issued by Bureau Veritas Certification Holding SAS No. UKRAINE-det/0798/2012 as of 12/11/2012, Guidance on criteria for baseline setting and monitoring, Host party criteria, the Kyoto Protocol, Clarifications on



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Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report for the period from 01/01/2008 to 30/06/2012 version 01 of November 27, 2012 and version 02 of December 04, 2012 and the project as described in the determined PDD.

#### 2.2 Follow-up Interviews

On 04/12/2012 Bureau Veritas Certification verification team conducted a visit to the project site («ICE «Tekhnogaz» LLC») and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of CEP CARBON EMISSIONS PARTNERS S.A. and «ICE «Tekhnogaz» LLC» were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
«ICE «Tekhnogaz» LLC»	<ul> <li>Organizational structure</li> <li>Responsibilities and authorities</li> <li>Roles and responsibilities relating to data collection and processing</li> <li>Equipment installation</li> <li>Data logging archiving and reporting</li> <li>Metering equipment control</li> <li>Metering record keeping system, database</li> <li>IT management</li> <li>Personnel training</li> <li>Quality control procedures and technology</li> <li>Internal audit and inspections</li> </ul>
Consultant: CEP CARBON EMISSIONS PARTNERS S.A	<ul> <li>Baseline methodology</li> <li>Monitoring plan</li> <li>Monitoring report</li> <li>Deviations from the PDD</li> </ul>

## 2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the GHG emission reduction calculation.



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If the Verification Team, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should raise these issues and inform the project participants of these issues in the form of:

- (a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- (b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan
- (c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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

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

#### 3 VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 8 Corrective Action Requests and 3 Clarification Requests.

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



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#### 3.1 Remaining issues and FARs from previous verifications

The purpose of this verification is to verify the issues from previous verifications and determination or issues to be verified in the PDD. The Determination Report prepared by Bureau Veritas Certification has determined the following unsolved issues:

#### **CAR 13:**

The Letters of Approval from parties involved are absent.

#### Response

The project was approved by the State Environmental Investment Agency of Ukraine (Letter of Approval No. 3712/23/7 dated 03/12/2012) and the Federal Office for the Environment of Switzerland (Letter of Approval No. J294-0485 dated 23/11/2012).

#### 3.2 Project approval by Parties involved (90-91)

The project was approved by the host Party (Ukraine) - the Letter of Approval No. 3712/23/7 dated 03/12/2012 issued by the State Environmental Investment Agency of Ukraine. The project was also approved by the party — buyer of the emission reduction units (Switzerland) - Letter of Approval No.J294-0485 dated 23/11/2012 issued by the Federal Office for the Environment FOEN of Switzerland.

The abovementioned written approvals are unconditional.

The identified areas of concern as to the project approval by the parties involved, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 01, CAR 02).

#### 3.3 Project implementation (92-93)

The main purpose of the project is reduction of greenhouse gas (GHG) emissions as a result of the modernization of the equipment of liquefied carbon dioxide production line at the "ICE "Tekhnogaz" LLC. Modernization of equipment will reduce specific indicator of energy consumption for the unit of production. The project will also result in lower GHG emissions by heat recuperation of waste energy generated by combustion of natural gas in the production process. The project, initiated by "ICE "Tekhnogaz" LLC, will result into reduction of GHG in the atmosphere and contribute the improvement of the ecological situation in the region.

In general project activity is aimed at:

Modernization of existing heat generating equipment;



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- The use of modern gas and heat metering devices; heat network control systems; systems of control, management and computerization of heat generating facilities;
- Implementation of new energy-efficient and energy-saving technological equipment involved into the production process;
- Computerization of operations and installation of control and metering instruments (CMIs) with data displaying on a central screen and on the computer of a production line.
- Installation of heat exchange equipment for utilization of steam-gas mixture heat and utilization of heated water in heating and ventilation systems;
- Installation of storage tanks for produced overcooled liquid carbon dioxide.

Due to the fact that the production technology of liquefied carbon dioxide is connected with large amount of excess heat that is released into the atmosphere, the project provides for its partial utilization by heat recuperators.

Starting date of the project is 01/04/2007, when "ICE "Tekhnogaz" LLC" started implementation of measures to reduce energy consumption within the framework of the Joint Implementation Project "Implementation of measures on reduction of energy consumption level and greenhouse gas emissions at "ICE "Tekhnogaz" LLC". Number of project measures in 2007 was not significant so the starting date of lifetime of the project is 01/01/2008.

This Monitoring Report presents emission reductions achieved during the period of 01/01/2008 - 30/06/2012. Status of the project activity implementation complies with the project plan included in the determined PDD version 02.

Table 2 Status of project implementation in the period from 01/01/2008 to 30/06/2012

Main stages of the project	Year				
Main stages of the project	2008	2009	2010	2011	2012*
1. Investment stage					
1.1 Implementation of new energy-efficient and energy-saving technological equipment involved into the production process.					



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The starting date of the crediting period has not changed and remains the date when the first emission reductions are expected to be generated, namely: January 1, 2008.

The monitoring system is in place.

Monitoring equipment, such as electric meters and heat meters, meets industry standards of Ukraine. All monitoring equipment is included in the detailed verification (calibration) plan and tested at intervals prescribed by the manufacturers of such equipment.

The identified areas of concern as to the project implementation, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 03).

# 3.4 Compliance of the monitoring plan with the monitoring methodology (94-98)



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The monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

For calculating the emission reductions, key factors such as total amount of natural gas consumed in historical period «j», amount of production in historical period «j», electricity consumption in historical period «j», amount of production in monitoring period «y», net calorific value of natural gas, carbon emission factor for natural gas combustion, carbon oxidation factor for natural gas combustion, indirect carbon dioxide emission factor for electricity consumption by consumers, total amount of thermal energy generated by the company, electricity consumption in monitoring period and factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating emission reductions are clearly identified, reliable and transparent.

Emission factors, including default emission factors, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The monitoring periods per component of the project are clearly specified in the monitoring report and do not overlap with those for which verifications were already deemed final in the past.

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 04 - CAR 06, CL 01).

#### 3.5 Revision of monitoring plan (99-100)

Not applicable.

#### 3.6 Data management (101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.



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The implementation of data collection procedures is in accordance with the monitoring plan provided in the PDD, including the quality control and quality assurance procedures.

The function of the monitoring equipment, including its calibration status, is in order.

According to the current Law "On metrology and metrological activity", all metering equipment in Ukraine shall meet the specified requirements of relevant standards and is subject to periodic calibration. Intercalibration periods are stated in Section B.1. of the MR.

The project complies with the legislative requirements relating to calibration and verification.

The evidence and records used for the monitoring are maintained in a traceable manner.

Operational and management structure to be applied by "ICE "Tekhnogaz" LLC for implementation of monitoring is given below.

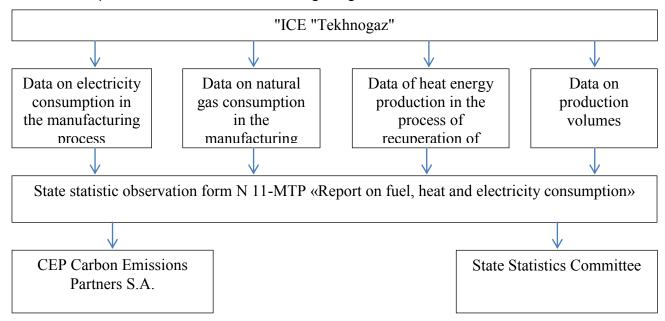


Figure 1 The operational and management structure of JIP

All necessary data concerning GHG emission reduction monitoring is archived in paper and/or electronic form and kept till the end of the crediting period and for two years after the latest transaction with emission reduction units.

The Monitoring Report version 02 provides sufficient information on duties assigned, responsibility and authorities concerning implementation and



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undertaking of monitoring procedures, including data management. The verification team confirms the efficiency of the existing management and operational systems and considers them appropriate for reliable project monitoring.

The identified areas of concern as to the data management, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 07, CAR 08, CL 02, CL 03).

### 3.7 Verification regarding programmes of activities (102-110)

Not applicable.

#### 4 VERIFICATION OPINION

Bureau Veritas Certification has performed the first periodic verification for the period from January 1, 2008 to June 30, 2012 of the "Implementation of measures on reduction of energy consumption and greenhouse gas emissions at «ICE «Tekhnogaz» LLC project in Ukraine, which applies JI specific approach. The verification 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 verification consisted of the following three phases: i) desk review of the monitoring report against 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 verification report and opinion.

«ICE «Tekhnogaz» LLC» management is responsible for the preparation of data which serve as the basis for estimation of GHG emission reductions. CEP CARBON EMISSIONS PARTNERS S.A. provides «ICE «Tekhnogaz» LLC» with consultative support in the issues relating to organization of data collection and is responsible for developing the monitoring report based on the Project Monitoring Plan included in the final PDD version 02.

Bureau Veritas Certification verified the Project Monitoring Report version 02 for the reporting period from 01/01/2008 to 30/06/2012 as indicated below. Bureau Veritas Certification confirms that the project is implemented as per approved PDD version. Installed equipment being essential for generating emission reduction runs reliably and is calibrated



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appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Emission reductions achieved by the project for the period from 01/01/2008 to 30/06/2012 do not differ from the amount predicted for the same period in the determined PDD. This is explained by the fact that at the time of the PDD development all data were available for accurate calculation of GHG emission reductions of the project.

Bureau Veritas Certification can confirm that the GHG emission reduction is calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: From 01/01/2008 to 30/06/2012

In the period from 01/01/2008 to 31/12/2008

Baseline emissions :677 518 tonnes of CO2 equivalent. :155 180 :522 338 Project emissions tonnes of CO2 equivalent. tonnes of CO2 equivalent. Emission Reductions

In the period from 01/01/2009 to 31/12/2009

Baseline emissions :693 378 tonnes of CO2 equivalent. :156 871 :536 507 Project emissions tonnes of CO2 equivalent. Emission Reductions tonnes of CO2 equivalent.

In the period from 01/01/2010 to 31/12/2010

Baseline emissions :691 962 :157 850 tonnes of CO2 equivalent. tonnes of CO2 equivalent. Emission Reductions tonnes of CO2 equivalent. : 534 112

In the period from 01/01/2011 to 31/12/2011

Baseline emissions :701 513 Project emissions :158 598 tonnes of CO2 equivalent. tonnes of CO2 equivalent. Emission Reductions tonnes of CO2 equivalent. :542 915

In the period from 01/01/2012 to 30/06/2012

Baseline emissions :446 234 tonnes of CO2 equivalent. Project emissions :98 003 tonnes of CO2 equivalent. Emission Reductions :348 231 tonnes of CO2 equivalent.

Total in the period from 01/01/2008 to 30/06/2012

Baseline emissions :3 210 605 tonnes of CO2 equivalent. Project emissions :726 502 tonnes of CO2 equivalent.

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Emission Reductions :2 484 103 tonnes of CO2 equivalent.

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#### **5 REFERENCES**

#### **Category 1 Documents:**

Documents provided by the project participants that relate directly to the GHG components of the project.

	Monitoring Report of the JI project "Implementation of measures on		
/1/	reduction of energy consumption and greenhouse gas emissions at		
	«ICE «Tekhnogaz» LLC for the period from 01/01/2008 to		
	30/06/2012 version 01 dated 27/11/2012		
	Monitoring Report of the JI project "Implementation of measures on		
/2/	reduction of energy consumption and greenhouse gas emissions at «ICE «Tekhnogaz» LLC for the period from 01/01/2008 to		
	30/06/2012 version 02 dated 04/12/2012		
	Annex 1. Calculation of GHG emission reductions under the project		
/3/	"Implementation of measures on reduction of energy consumption		
	and greenhouse gas emissions at «ICE «Tekhnogaz» LLC"		
	Project Design Document of the project "Implementation of		
/4/	measures on reduction of energy consumption and greenhouse gas		
emissions at «ICE «Tekhnogaz» LLC, version 02 dated 08/11			
	Determination Report of the project "Implementation of measures on reduction of energy consumption and greenhouse gas		
/5/	emissions at «ICE «Tekhnogaz» LLC No. UKRAINE-det/0798/2012		
	as of 12/11/2012 issued by Bureau Veritas Certification		
	Letter of Approval of the Joint Implementation project		
101	"Implementation of measures on reduction of energy consumption		
/6/	and greenhouse gas emissions at «ICE «Tekhnogaz» LLC # 3712/23/7 of 03/12/2012 issued by State Environmental Investment		
	Agency of Ukraine		
	Letter of Approval of the JI project "Implementation of measures on		
/7/	reduction of energy consumption and greenhouse gas emissions at		
111	«ICE «Tekhnogaz» LLC # J294-0485 issued by the Federal Office		
	for the Environment of Switzerland dated 23/11/2012		

#### **Category 2 Documents:**

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

		<b>,</b>
	/1/	Fuel, heat and power consumption report, January-December 2008
		(form No. 11-MTP)
ſ	/2/	Fuel, heat and power consumption report, January-December 2009
		(form No. 11-MTP)
ſ	/3/	Fuel, heat and power consumption report, January-December 2010
		(form No. 11-MTP)



(form No. 11-MTP)  /5/ Fuel, heat and power consumption report, January-June (form No. 11-MTP)  /6/ The act of fixed assets commissioning №766/1 dated 27/06/2008  /7/ The act of fixed assets commissioning №749/1 dated 27/06/2008  /8/ The act of fixed assets commissioning №759/1 dated 27/06/2008  /9/ The act of fixed assets commissioning №758/1 dated 27/06/2008  /10/ The act of fixed assets commissioning №750/1 dated 27/06/2008  /11/ The act of fixed assets commissioning №514/1 dated 14/09/2011  /12/ The act of fixed assets commissioning №305/1 dated 15/03/2010  /13/ The act of fixed assets commissioning №215/1 dated 15/03/2010  /14/ The act of fixed assets commissioning №214/1 dated 15/03/2010  /15/ The act of fixed assets commissioning №214/1 dated 15/03/2010  /16/ The act of fixed assets commissioning №214/1 dated 15/03/2010  /16/ The act of fixed assets commissioning №214/1 dated 15/03/2010	2012
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79/ The act of fixed assets commissioning №758/1 dated 27/06/2008  710/ The act of fixed assets commissioning №750/1 dated 27/06/2008  711/ The act of fixed assets commissioning №514/1 dated 14/09/2011  712/ The act of fixed assets commissioning №305/1 dated 15/03/2010  713/ The act of fixed assets commissioning №215/1 dated 15/03/2010  714/ The act of fixed assets commissioning №304/1 dated 15/03/2010  715/ The act of fixed assets commissioning №214/1 dated 15/03/2010	
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/15/ The act of fixed assets commissioning №214/1 dated 15/03/2010	
/16/ The act of fixed assets commissioning №501/1 dated 16/04/2009	
/17/ The act of fixed assets commissioning №465/1 dated 16/04/2009	
/18/ The act of fixed assets commissioning №461/1 dated 16/04/2009	
/19/ The act of fixed assets commissioning №543/1 dated 16/04/2009	
/20/ The act of fixed assets commissioning №542/1 dated 16/04/2009	
/21/ The act of fixed assets commissioning №482/1 dated 30/11/2007	
/22/ The act of fixed assets commissioning №479/1 dated 30/11/2007	
/23/ The act of fixed assets commissioning №456/1 dated 30/11/2007	
/24/ The act of fixed assets commissioning №471/1 dated 30/11/2007	
/25/ The act of fixed assets commissioning №472/1 dated 30/11/2007	
/26/ The act of fixed assets commissioning №462/1 dated 30/11/2007	
/27/ The act of fixed assets commissioning №463/1 dated 30/11/2007	
/28/ The act of fixed assets commissioning №466/1 dated 30/11/2007	
/29/ The act of fixed assets commissioning №465/1 dated 30/11/2007	
/30/ The act of fixed assets commissioning №467/1 dated 30/11/2007	
/31/ The act of fixed assets commissioning №214/1 dated 22/02/2012	



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/32/	The act of fixed assets commissioning №162/1 dated 22/02/2012
/33/	The act of fixed assets commissioning №158/1 dated 22/02/2012
/34/	The act of fixed assets commissioning №157/1 dated 22/02/2012
/35/	The act of fixed assets commissioning №156/1 dated 22/02/2012
/36/	The act of fixed assets commissioning №751/1 dated 27/06/2008
/37/	The act of fixed assets commissioning №748/1 dated 27/06/2008
/38/	List of measuring devices that are in operation and are under calibration 2012.
/39/	List of measuring devices that are in operation and are under calibration 2011.
/40/	Photos of equipment of production lines of two carbon dioxide departments of "ICE "Tekhnogaz" LLC"

#### Persons interviewed:

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

	Name	Organization	Position	
/1/	Koval A.M.	«ICE «Tekhnogaz» LLC»	Acting Director	
/2/	Shmonyak M.P.	«ICE «Tekhnogaz» LLC»	Chief Engineer	
/3/	Osadchuk V.A.	«ICE «Tekhnogaz» LLC»	Chief of carbon dioxide department and gas station	
/4/	Tihy V.A.	«ICE «Tekhnogaz» LLC»	Head of electro-mechanical site	
/5/	Shevchenko I.M.	«ICE «Tekhnogaz» LLC»	Head of measurement laboratory	
/6/	Palamarchuk D. O.	LLC "CEP"	CEP CARBON EMISSIONS PARTNERS S.A. Consultant	



**VERIFICATION REPORT** 

#### APPENDIX A: PROJECT VERIFICATION PROTOCOL

#### **BUREAU VERITAS CERTIFICATION HOLDING SAS**

#### **VERIFICATION PROTOCOL**

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project appre	ovals by Parties involved			
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	party (Úkraine) and the other Party involved (Switzerland). The Letters of Approval were issued by	CAR 01 CAR 02	OK OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
Project imple				01/
92	Has the project been implemented in	Yes, the project has been implemented in	CAR 03	OK



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	accordance with the PDD, which is listed on the UNFCCC JI website.  CAR 03. The version of the determined PDD is incorrect in Section A.6. of the MR.		
93	What is the status of operation of the project during the monitoring period?	Starting date of the project is 01/04/2007, when «ICE «Tekhnogaz» LLC» started implementation of measures within the framework of the Joint Implementation Project. Number of project measures in 2007 was not significant so the starting date of lifetime of the project is 01/01/2008.  The Project has been operational for the whole monitoring period, which is 01/01/2008-30/06/2012.	OK	OK
	with monitoring plan			
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	There aren't any changes in or deviations from the registered PDD.	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) of the DVM, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	Yes, all relevant key factors were taken into account, as appropriate.	OK	OK



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent.  CAR 04. The national inventory report of anthropogenic greenhouse gas emissions by sources and removals by sinks in Ukraine for 1990-2009 is stated as the data source for parameters in Tables 4 and 5 of the MR. But the Inventory for 1990-2010 shall be used.  CAR 05. Provide information on sources of data for the stated monitoring parameters in Sections B.2.1. and B.2.2.  CAR 06. Please, check description of indexes after formulae. Make the appropriate corrections.  CL 01. Please, provide a reference to AM0068 methodology in Section A.5.1 of the MR.	CAR 04 CAR 05 CAR 06 CL 01	OK OK OK OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Yes, emission factors, including default emission factors, that are used for calculating the emission reductions or enhancements of net removals, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	Calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.	OK	OK



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Applicable to	o JI SSC projects only			
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis?  If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	Not applicable	Not applicable	Not applicable
Applicable to	o bundled JI SSC projects only			
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	Not applicable	Not applicable	Not applicable
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	Not applicable	Not applicable	Not applicable
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report?  Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?	Not applicable	Not applicable	Not applicable



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitoring plan only if monitoring plan is revised by proje	ect participant		
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?		Not applicable	Not applicable
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	Not applicable	Not applicable	Not applicable
Data manag	ement			
101 (a)	Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	The implementation of data collection procedures, including the quality control and quality assurance procedures, is in accordance with the monitoring plan.  CAR 07. Please, provide information on storage of monitoring data of the project.  CAR 08. Monitoring period is incorrect in Section B.4.	CAR 07 CAR 08	OK OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Yes, the function of the monitoring equipment, including its calibration status is in order.  CL 02. Please, provide calibration certificates of metering devises used under the project.	CL 02	ОК
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records used for the monitoring maintained are in a traceable manner.	OK	OK
101 (d)	Is the data collection and management	The data collection and management system for the	CL 03	OK



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	system for the project in accordance with the monitoring plan?	project is in accordance with the monitoring plan. The verification team confirms the effectiveness of the existing management and operating systems and considers them suitable for reliable monitoring of the project.  CL 03. Please, check the numbering of Tables and Figures in the MR.		
Verification	regarding programs of activities (addition	nal elements for assessment)		
102	Is any JPA that has not been added to the JI PoA not verified?	Not applicable	Not applicable	Not applicable
103	Is the verification based on the monitoring reports of all JPAs to be verified?	Not applicable	Not applicable	Not applicable
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	Not applicable	Not applicable	Not applicable
104	Does the monitoring period not overlap with previous monitoring periods?	Not applicable	Not applicable	Not applicable
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	Not applicable	Not applicable	Not applicable



Paragraph Check Item	Initial finding	Draft Conclusion	Final Conclusion
Does the sampling plan prepared by AIE:  (a) Describe its sample selection, takinto account that:  (i) For each verification that uses sample-based approach, the same selection shall be sufficied representative of the JPAs in the PoA such extrapolation to all JF identified for that verification reasonable, taking into accordifferences among the characterist of JPAs, such as:  — The types of JPAs; — The complexity of the applicate technologies and/or measures used technologies and/or measures used JPA; — The amounts of expected emission reductions of the JPAs being verifications of the JPAs for who will be applied to the properties of JPAs and the properties of JPAs are the properties of JPAs for who will be applied to the properties of JPAs are the properties of JPAs for who will be applied to the properties of JPAs and the properties of JPAs for who will be applied to the properties of JPAs are the	the Not applicable  ing  a a ple ntly JI PAs is unt tics  ble d; ach ion ed; ich ing a of	Not applicable	Not applicable



DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	Not applicable	Not applicable	Not applicable
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	Not applicable	Not applicable	Not applicable
109	Is the sampling plan available for submission to the secretariat for the JISC's ex ante assessment? (Optional)	Not applicable	Not applicable	Not applicable
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?	Not applicable	Not applicable	Not applicable



#### VERIFICATION REPORT

#### Table 2. Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<b>CAR 01.</b> Please, provide detailed information on the Letters of Approval issued by the parties involved in the monitoring report.	90	The project obtained approval from Ukraine (Letter of Approval #3712/23/7 dated 03/12/2012, issued by the State Environmental Investment Agency of Ukraine). The project was also approved by the Federal Office for the Environment (FOEN) of Switzerland (Letter of Approval No. J294-0485 dated 23/11/2012).	CAR 01 is closed as necessary corrections were made in the MR version 02.
<b>CAR 02.</b> Please, state the data relating to determination stage of the project in Section A.2. of the MR.	90	Joint Implementation Project (JIP) "Implementation of measures on reduction of energy consumption and greenhouse gas emissions at "ICE "Tekhnogaz" LLC" was determined by Bureau Veritas Certification, Determination report #UKRAINE-det/0798/2012 dated 12/11/2012	corrections were made in the MR
<b>CAR 03.</b> The version of the determined PDD is incorrect in Section A.6. of the MR.	92	PDD version 02.	CAR 03 is closed as necessary corrections were made.



<b>CAR 04</b> . The national inventory report of anthropogenic greenhouse gas emissions by sources and removals by sinks in Ukraine for 1990-2009 is stated as the data source for parameters in Tables 4 and 5 of the MR. But the Inventory for 1990-2010 shall be used.	95(b)	The national inventory report of anthropogenic greenhouse gas emissions by sources and removals by sinks in Ukraine for 1990-2010	CAR 04 is closed as necessary corrections were made.
<b>CAR 05</b> . Provide information on sources of data for the stated monitoring parameters in Sections B.2.1. and B.2.2.	95 (b)	Necessary information was provided.	CAR 05 is closed as necessary corrections were made.
<b>CAR 06</b> . Please, check description of indexes after formulae. Make the appropriate corrections.	101 (b)	Indexes descriptions were checked. Necessary corrections were made.	CAR 06 is closed as necessary corrections were made.
CAR 07. Please, provide information on storage of monitoring data of the project.	101 (a)	All data on the project "Implementation of measures on reduction of energy consumption and greenhouse gas emissions at «ICE «Tekhnogaz» LLC "will be stored at «ICE «Tekhnogaz» LLC» throughout the crediting period and at least for two years since the last transfer of ERUs in the project.	CAR 07 is closed as necessary corrections were made.
<b>CAR 08</b> . Monitoring period is incorrect in Section B.4.	101 (a)	from 01/01/2008 to 30/06/2012	CAR 08 is closed as necessary corrections were made.
<b>CL 01.</b> Please, provide a reference to AM0068 methodology in Section A.5.1 of the MR.	95 (b)	Necessary reference was provided	CL 01 was closed as necessary reference was provided.



<b>CL 02.</b> Please, provide calibration certificates of metering devises used under the project.	95 (b)	Necessary acts were provided	CL 02 is closed as necessary information was provided.
<b>CL 03.</b> Please, check the numbering of Tables and Figures in the MR.	101 (d)	Relevant corrections were made	CL 03 is closed as necessary changes were made.