



# VERIFICATION REPORT CEP CARBON EMISSIONS PARTNERS S.A.

## VERIFICATION OF THE JI PROJECT

MODERNIZATION AND TECHNICAL REEQUIPMENT OF PJSC  
«CENTRENERGO» TPP»

First periodic

for the period 01/01/2008 – 31/12/2011

REPORT No. UKRAINE-VER/0795/2012

REVISION No. 02

BUREAU VERITAS CERTIFICATION



VERIFICATION REPORT

Date of first issue: 15/11/2012	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 first periodic verification for the period from January 1, 2008 to December 31, 2011 of the "Modernization and technical reequipment of PJSC «Centrenergo» TPP» project of CEP CARBON EMISSIONS PARTNERS S.A., located in the Kyiv, Kharkiv and Donetsk regions, 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 6 982 770 tonnes of CO<sub>2</sub> equivalent for the monitoring period from 01/01/2008 to 31/12/2011.  
 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.: UKRAINE-ver/0795/2012	Subject Group: JI
Project title: Modernization and technical reequipment of PJSC «Centrenergo» TPP»	
Work carried out by: Oleg Skoblyk – Team Leader, Climate Change Lead Verifier Vladimir Kulish – Team Member, Climate Change Lead Verifier	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Vasiliy Kobzar – Technical expert	
Work approved by: Ivan Sokolov - Operational Manager	
Date of this revision: 19/11/2012	Rev. No.: 02
Number of pages: 26	

- No distribution without permission from the Client or responsible organizational unit
- Limited distribution
- Unrestricted distribution



<b>Table of Contents</b>		<b>Page</b>
1	INTRODUCTION .....	4
1.1	Objective	4
1.2	Scope	4
1.3	Verification team	4
2	METHODOLOGY .....	5
2.1	Review of documents	5
2.2	Follow-up Interviews	6
2.3	Resolution of Clarification, Corrective and Forward Action Requests	6
3	VERIFICATION CONCLUSIONS .....	7
3.1	Remaining issues and FARs from previous verifications	8
3.2	Project approval by Parties involved (90-91)	8
3.3	Project implementation (92-93)	8
3.4	Compliance of the monitoring plan with the monitoring methodology (94-98)	10
3.5	Revision of monitoring plan (99-100)	11
3.6	Data management (101)	11
3.7	Verification regarding programmes of activities (102-110)	12
4	VERIFICATION OPINION .....	12
5	REFERENCES .....	15
	APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL .....	18



## 1 INTRODUCTION

CEP CARBON EMISSIONS PARTNERS S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “Modernization and technical reequipping of PJSC «Centrenergo» TPP» (hereafter called “the project”) located in the Kyiv, Kharkiv and Donetsk regions, 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 December 31, 2011.

### 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.



### **1.3 Verification Team**

The determination team consists of the following personnel:

Oleg Skoblyk

Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

Vladimir Kulish

Bureau Veritas Certification Team Member, Climate Change Lead Verifier

This verification report was reviewed by:

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

Vasiliy Kobzar

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/0722/2012 as of 12/10/2012, Guidance on criteria for baseline setting and monitoring, Host party criteria, the Kyoto Protocol, Clarifications on 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 31/12/2011 version 01 of November 13, 2012 and version 02 of November 16, 2012 and the project as described in the determined PDD.

## 2.2 Follow-up Interviews

On 16/11/2012 Bureau Veritas Certification verification team conducted a visit to the project site (PJSC «Centrenerg») 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 PJSC «Centrenerg») were interviewed (see References). The main topics of the interviews are summarized in Table 1.

**Table 1 Interview topics**

Interviewed organization	Interview topics
PJSC «Centrenerg»)»	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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.

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 7 Corrective Action Requests and 3 Clarification Requests.



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

### **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 11:**

The Letters of Approval from parties involved are absent.

#### **Response**

The project obtained written approval from Ukraine (the Host country) on 13/11/2012 (Letter of Approval № 3408/23/7, issued by the State Environmental Investment Agency). The project was also approved by Switzerland, the country – buyer of GHG emission reductions (Letter of Approval № J294-0485, issued by the Federal Office for the Environment (FOEN) dated 24/10/2012).

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

The project was approved by the host Party (Ukraine) - the Letter of Approval No. 3408/23/7 dated 13/11/2012 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 24/10/2012 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).

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

The main purpose of the Joint Implementation Project (hereinafter - JIP) entitled "Modernization and technical reequipping of PJSC "Centrenerg" TPP" is reduction of greenhouse gas emissions by modernization of technological equipment used in the course of electricity generation at TPP.





Prior to the proposed project PJSC "Centrenergo" implemented only measures aimed at maintaining the main technological equipment in working order. Factors that hindered the modernization work:

1. Limited financing of existing system modernization work.
2. Underdeveloped regulatory base, which was unable to regulate the functionality for implementation of energy-efficient measures in the system of heat and electricity generation.

The project provides for the modernization of technological equipment based on the use of more efficient production technologies and equipment. As a result the project implementation will increase fuel consumption efficiency and will reduce greenhouse gas emissions compared to baseline scenario.

13/03/2000 – date when PJSC "Centrenergo" started implementation of project measures in introducing of modernization of technological equipment and improvement of its efficiency, reliability and safety rates.

This Monitoring Report presents emission reductions achieved during the period of 01/01/2008 – 31/12/2011. Status of the project activity implementation complies with the project plan included in the determined PDD version 02. Detailed information on the status of realization and main stages of implementation of the project activities is presented in Annex 2 of the MR.

The monitoring system is in place.

Monitoring equipment, such as natural gas 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 02, CAR 03, CL 01).

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

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 net caloric value of reference fuel, total amount of reference fuel combustion, total



amount of supplied electricity, coefficient of the carbon content in fuel "i", carbon oxidation factor in the course of fuel "i" combustion, percentage of fuel "i" from consumption of reference fuel 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 05, CL 02).

### **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.

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.

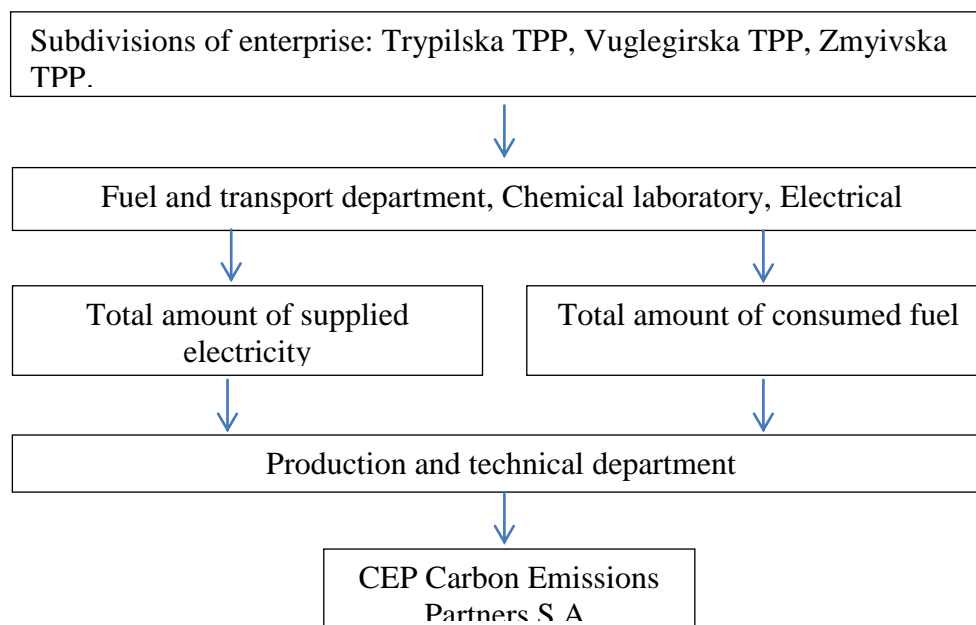
According to the current Law "On metrology and metrological activity", all metering equipment in Ukraine shall meet the specified requirements of relevant standards and is subject to periodic calibration. Intercalibration periods are stated in Annex 2 of the MR.

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.

Co-ordination of work of all departments and services of PJSC «Centrenergo» relating to the JI project is carried out by a Working Team (protocol #1 meeting of the Working Team on JI "Reduction of direct methane emissions by implementation of innovative repair methods at technological equipment of Public Joint Stock Company "National Joint Stock Company "Chornomornaftogaz" from 07/12/2005).

Operational structure and management structure, which is used to implement the project is given below:



**Figure 1 The operational and management structure of JIP**

The main source of data necessary for the operator to monitor and calculation GHG emission reductions to the project activity is a form Form №3-tech-TPP. The Ministry of Fuel and Energy of Ukraine "Technical and economic work indicators of equipment"

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 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 06, CAR 07, 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 December 31, 2011 of the "Modernization and technical reequipment of PJSC «Centrenergo» TPP» 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.

PJSC «Centrenergo» 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 PJSC «Centrenergo» 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 31/12/2011 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



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 31/12/2011 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 31/12/2011

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

Baseline emissions	:16 527 321 tonnes of CO2 equivalent.
Project emissions	:15 105 641 tonnes of CO2 equivalent.
Emission Reductions	: 1 421 680 tonnes of CO2 equivalent.

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

Baseline emissions	:15 074 356 tonnes of CO2 equivalent.
Project emissions	:13 484 982 tonnes of CO2 equivalent.
Emission Reductions	: 1 589 374 tonnes of CO2 equivalent.

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

Baseline emissions	:16 284 347 tonnes of CO2 equivalent.
Project emissions	:14 438 583 tonnes of CO2 equivalent.
Emission Reductions	: 1 845 764 tonnes of CO2 equivalent.

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

Baseline emissions	:16 859 830 tonnes of CO2 equivalent.
Project emissions	:14 733 878 tonnes of CO2 equivalent.
Emission Reductions	: 2 125 952 tonnes of CO2 equivalent.

Total in the period from 01/01/2008 to 31/12/2011

Baseline emissions	:64 745 854 tonnes of CO2 equivalent.
Project emissions	:57 763 084 tonnes of CO2 equivalent.
Emission Reductions	:6 982 770 tonnes of CO2 equivalent.



## 5 REFERENCES

### Category 1 Documents:

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

/1/	Monitoring Report of the JI project "Modernization and technical reequipment of PJSC «Centrenergo» TPP» for the period from 01/01/2008 to 31/12/2011 version 01 dated 13/11/2012
/2/	Monitoring Report of the JI project "Modernization and technical reequipment of PJSC «Centrenergo» TPP» for the period from 01/01/2008 to 31/12/2011 version 02 dated 16/11/2012
/3/	Annex 1. Calculation of GHG emission reductions under the project "Modernization and technical reequipment of PJSC «Centrenergo» TPP»
/4/	Annex 2. Implementation of project activities under the project "Modernization and technical reequipment of PJSC «Centrenergo» TPP»
/5/	Annex 3. List of measuring equipment under the project "Modernization and technical reequipment of PJSC «Centrenergo» TPP»
/6/	Project Design Document of the project "Modernization and technical reequipment of PJSC «Centrenergo» TPP», version 02 dated 08/10/2012
/7/	Determination Report of the project "Modernization and technical reequipment of PJSC «Centrenergo» TPP» No. UKRAINE-det/0722/2012 as of 12/10/2012 issued by Bureau Veritas Certification
/8/	Letter of Approval of the Joint Implementation project "Modernization and technical reequipment of PJSC «Centrenergo» TPP» # 3408/23/7 of 13/11/2012 issued by State Environmental Investment Agency of Ukraine
/9/	Letter of Approval of the JI project "Modernization and technical reequipment of PJSC «Centrenergo» TPP» # J294-0485 issued by the Federal Office for the Environment of Switzerland dated 24/10/2012

### Category 2 Documents:

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

/1/	Form 2 TP (air) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2008
-----	---



## VERIFICATION REPORT

/2/	Form 2 TP (air) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2009
/3/	Form 2 TP (air) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2010
/4/	Form 2 TP (air) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2011
/5/	Form 2 TP (water) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2008
/6/	Form 2 TP (water) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2009
/7/	Form 2 TP (water) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2010
/8/	Form 2 TP (water) Trypilska TPP, Vuglegirska TPP, Zmyivska TPP 2011
/9/	Acceptance of construction works Trypilska TPP dated 2008
/10/	Acceptance of construction works Trypilska TPP dated 2010
/11/	Acceptance of construction works Trypilska TPP dated 2011
/12/	Acceptance of construction works Zmyivska TPP dated 2008
/13/	Acceptance of construction works Zmyivska TPP dated 2009
/14/	Acceptance of construction works Zmyivska TPP dated 2010
/15/	Acceptance of construction works Zmyivska TPP dated 2011
/16/	Schedule of verification of measuring equipment Trypilska TPP, Vuglegirska TPP, Zmyivska TPP
/17/	Photo of measuring equipment
/18/	Photo of modernized equipment

**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.

	<b>Name</b>	<b>Organization</b>	<b>Position</b>
/1/	Trofimenko Y.I.	PJSC «Centrenerg»	Investment projects and capital construction Director
/2/	Kozemko O.M.	PJSC «Centrenerg»	Technical Director
/3/	Oksinec Y.A.	PJSC «Centrenerg»	Head of production department
/4/	Erofeev I.M.	PJSC «Centrenerg»	Chief of fuel and transportation services
/5/	Pankov S.V.	PJSC «Centrenerg»	Chief Engineer Vuglegirska TPP



## VERIFICATION REPORT

/6/	Salimon M.P.	PJSC «Centrenergo»	Chief Engineer Trypilska TPP
/7/	Chumachenko O.M.	PJSC «Centrenergo»	Chief Engineer Zmyivska TPP
/8/	Palamarchuk D.O.	LLC «CEP»	CEP CARBON EMISSIONS PARTNERS S.A. Consultant





## 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
<b>Project approvals by Parties involved</b>				
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?	The project has been approved by both the Host party (Ukraine) and the other Party involved (Switzerland). The Letters of Approval were issued by NFPs of the Parties involved. Two Letters of Approval were available at the beginning of the first verification of the project. <b>CAR 01.</b> The date when The Letters of Approval was issued by the Host party (Ukraine) that is stated in Section A.2 is incorrect. Please, make necessary corrections.	<b>CAR 01</b>	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
<b>Project implementation</b>				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been	Yes, the project has been implemented in accordance with the PDD, which is listed on the UNFCCC JI website.	<b>CAR 02</b> <b>CAR 03</b> <b>CL 01</b>	OK OK OK



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	deemed final and is so listed on the UNFCCC JI website?	<p><b>CAR 02.</b> Please, state the sectoral scope in the MR.</p> <p><b>CAR 03.</b> Please indicate in Section A.5 the full title of approved CDM methodologies similar to the proposed project.</p> <p><b>CL 01.</b> Please, provide a reference to approved CDM methodologies similar to the proposed project.</p>		
93	What is the status of operation of the project during the monitoring period?	<p>Starting date of the project is 13/03/2000 – date when PJSC «Centrengo» started implementation of project measures in introducing of modernization of technological equipment and improvement of its efficiency, reliability and safety rates.</p> <p>The Project has been operational for the whole monitoring period, which is 01/01/2008-31/12/2011.</p>	OK	OK
<b>Compliance with monitoring plan</b>				
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?	<p><b>CL 02.</b> Please provide a clarification whether any changes in deviations from the registered PDD took place.</p>	<b>CL 02</b>	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?	<p>Yes, all relevant key factors were taken into account, as appropriate.</p>	OK	OK

## VERIFICATION REPORT

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. <b>CAR 04.</b> In Section B.2. of the MR data source for $OXID_{p,tp,i}^y$ parameter is incorrect. Please, provide the correct information. <b>CAR 05.</b> In Table 3 and 4 Section B.2.2. Provide information on sources of data for the monitoring parameters.	<b>CAR 04</b> <b>CAR 05</b>	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
<b>Applicable to JI SSC projects only</b>				
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	Not applicable	Not applicable	Not applicable



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?			
<b>Applicable to bundled JI SSC projects only</b>				
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
<b>Revision of monitoring plan</b>				
<b>Applicable only if monitoring plan is revised by project participant</b>				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	Not applicable.	Not applicable	Not applicable
99 (b)	Does the proposed revision improve the	Not applicable	Not	Not



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?		applicable	applicable
<b>Data management</b>				
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. <b>CAR 06.</b> Please, provide information on storage of monitoring data of the project. <b>CAR 07.</b> The incorrect information about another project is provided in Section C.3. of the MR.	<b>CAR 06</b> <b>CAR 07</b>	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.	OK	OK
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 system for the project in accordance with the monitoring plan?	The data collection and management system for the 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. <b>CL 03.</b> Please, check the numbering of Tables in the	OK	OK



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		MR.		
<b>Verification regarding programs of activities (additional elements for assessment)</b>				
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
<b>Applicable to sample-based approach only</b>				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs	Not applicable	Not applicable	Not applicable



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<p>identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as:</p> <ul style="list-style-type: none"> <li>- The types of JPAs;</li> <li>- The complexity of the applicable technologies and/or measures used;</li> <li>- The geographical location of each JPA;</li> <li>- The amounts of expected emission reductions of the JPAs being verified;</li> <li>- The number of JPAs for which emission reductions are being verified;</li> <li>- The length of monitoring periods of the JPAs being verified; and</li> <li>- The samples selected for prior verifications, if any?</li> </ul>			
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	Not applicable	Not applicable	Not applicable



## VERIFICATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?			
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> The date when The Letters of Approval was issued by the Host party (Ukraine) that is stated in Section A.2 is incorrect. Please, make necessary corrections.	90	The project obtained written approval from Ukraine (the Host country) on 13/11/2012 (Letter of Approval № 3408/23/7, issued by the State Environmental Investment Agency).	CAR 01 is closed as necessary corrections were made in the MR version 02.
<b>CAR 02.</b> Please, state the sectoral scope in the MR.	92	Sectoral scope 2 – Energy industry (renewable / nonrenewable energy resources).	CAR 02 is closed as necessary corrections were made in the MR version 02.
<b>CAR 03.</b> Please indicate in Section A.5 the full title of approved CDM methodologies similar to the proposed project.	92	Necessary corrections were made.	CAR 03 is closed as necessary corrections were made.
<b>CAR 04.</b> In Section B.2. of the MR data source for $OXID_{p,tpp,i}^y$ parameter is incorrect. Please, provide the correct information.	95(b)	“National inventory report of anthropogenic greenhouse gas emissions by sources and removals by sinks in Ukraine in 1990-2010”	CAR 04 is closed as necessary corrections were made.
<b>CAR 05.</b> In Table 3 and 4 Section B.2.2. Provide information on sources of data for the monitoring parameters.	95 (b)	Necessary information was provided.	CAR 05 is closed as necessary corrections were made.
<b>CAR 06.</b> Please, provide information on storage of monitoring data of the project.	101 (a)	The primary monitoring data necessary for calculating GHG emission reductions	CAR 06 is closed as necessary corrections were made.



## VERIFICATION REPORT

		will be stored in separate sections of the company during the crediting period and at least two years since the last transfer of ERUs in the project.	
<b>CAR 07.</b> The incorrect information about another project is provided in Section C.3. of the MR.	101 (a)	from 01/01/2008 to 31/12/2011	CAR 07 is closed as necessary corrections were made.
<b>CL 01.</b> Please, provide a reference to approved CDM methodologies similar to the proposed project.	92	Necessary reference was provided	CL 01 was closed as necessary reference was provided.
<b>CL 02.</b> Please provide a clarification whether any changes in deviations from the registered PDD took place.	94	There aren't any deviations from or changes in the registered PDD.	CL 02 is closed as necessary information was provided.
<b>CL 03.</b> Please, check the numbering of Tables in the MR.	101 (d)	Necessary correction were made.	CL 03 is closed as necessary information was provided.