



BUREAU
VERITAS

VERIFICATION REPORT

“ECO-ELTA” LLC

VERIFICATION OF THE
“RECONSTRUCTION OF THE ELECTRICITY
GRID OF THE “LUGANSK ENERGY
INTERCONNECTION” LLC. IN ORDER TO LOWER
THE ELECTRICITY TRANSPORTATION LOSSES”

INITIAL AND FIRST PERIODIC FOR 01/01/2008-31/12/2012

REPORT No. UKRAINE-VER/0910/2013

REVISION No. 01

BUREAU VERITAS CERTIFICATION

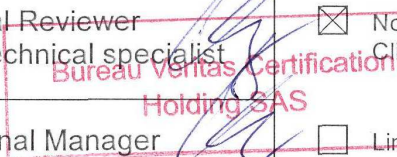


VERIFICATION REPORT “RECONSTRUCTION OF THE ELECTRICITY GRID OF THE “LUGANSK ENERGY INTERCONNECTION” LLC. IN ORDER TO LOWER THE ELECTRICITY TRANSPORTATION LOSSES”

Date of first issue: 01/04/2013	Organizational unit: Bureau Veritas Certification Holding SAS
Client: “Eco-Elta” LLC	Client ref.: Maksym Rogovoi

Summary:
 Bureau Veritas Certification has made the initial, 1st periodic verification of the “Reconstruction of the Electricity Grid of the “Lugansk Energy Interconnection” LLC. in order to lower the electricity transportation loses”, project of “Eco-Elta” LLC located in Luhansk 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 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 Independent 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 Action Requests, Forward Action Requests (CL, 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 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. The GHG emission reduction is calculated accurately and without material errors, omissions, or misstatements, and the ERUs issued totalize 6 497 805 tonnes of CO₂ equivalent for the monitoring period from 01/01/2008 to 31/12/2012 (1 314 803 tonnes of CO₂ equivalent for 01/01/2008-31/12/2008, 1 161 822 tonnes of CO₂ equivalent for 01/01/2009-31/12/2009, 1 284 182 tonnes of CO₂ equivalent for 01/01/2010-31/12/2010, 1 357 267 tonnes of CO₂ equivalent 01/01/2011-31/12/2011, 1 379 731 tonnes of CO₂ equivalent for 01/01/2012-31/12/2012).
 Our opinion relates to the project GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: Ukraine-ver/0910/2013	Subject Group: JI
Project title: “Reconstruction of the Electricity Grid of the “Lugansk Energy Interconnection” LLC. in order to lower the electricity transportation loses”	
Work carried out by: Vyacheslav Yeriomin – team leader, lead verifier Sergii Verteletskyi – team member, verifier	
Work reviewed by: Ivan Sokolov - Technical Reviewer Borys Kostykovskiy - Technical specialist	
Work approved by: Ivan Sokolov - Operational Manager	
Date of this revision: 05/04/2013	Rev. No.: 01
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1 INTRODUCTION

“Eco-Elta” LLC has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “Reconstruction of the Electricity Grid of the “Lugansk Energy Interconnection” LLC. in order to lower the electricity transportation losses” (hereafter called “the project”) at Luhansk 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.

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, 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 verification team consists of the following personnel:

Vyacheslav Yeriomin
Bureau Veritas Certification Team Leader, Climate Change Verifier

Sergii Verteletskyi
Bureau Veritas Certification Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer



Borys Kostykovskyi
Bureau Veritas Certification, technical specialist

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 "Eco-Elta LLC" and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), and/or Guidance on criteria for baseline setting and monitoring, Host party criteria, 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 version(s) 1.1 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 27/03/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of "Luhansk Energy Interconnection" LLC and "Eco-Elta" LLC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
“Luhansk Energy Interconnection” LLC	<ul style="list-style-type: none"> - Organizational structure - Responsibilities and authorities - Roles and responsibilities for data collection and processing - Installation of equipment - Data logging, archiving and reporting - Metering equipment control - Metering record keeping system, database - Training of personnel - Quality management procedures and technology - Internal audits and check-ups
CONSULTANT “Eco-Elta” LLC	<ul style="list-style-type: none"> - Monitoring plan - Monitoring report - Deviations from PDD - ERUs calculation model

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.

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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 6 Corrective Action Requests, 2 Clarification Requests, and 0 Forward Action 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

There are no FARs available from the determination process, provided by Bureau Veritas Certification.

3.2 Project approval by Parties involved (90-91)

Written project approvals have been obtained from DFPs of Parties Involved. Letter of Approval # 3899/23/7 has been issued by State Environment Investment Agency of Ukraine 19/12/2012. Letter of Approval # DOPpek-4430-30/11550/13/MK/EBS has been issued by the Minister of Environmental protection of Poland 22/03/2013

The abovementioned written approval is unconditional.

Identified problem areas applicable to written project approvals, project participants responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR01)

3.3 Project implementation (92-93)

The activity for reduction of electricity losses in "Luhansk Energy Interconnection" LLC grids was started in 2003 year in frames of JI project. The project has been implemented during 2003-2012 years. List of measures, implemented during the monitoring period, is followed:

In 2008:

- 38 kilometers of the 35 – 110 kV wires replaced and 550 kilometers were repaired and 547 kilometers of the 0,4 – 10 kV wires replaced and 2 426 kilometers were repaired. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was



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replaced with the AS-240 wire; the M-120 wires were replaced with the AS-300/48 wires.

- 554 circuit breakers of 6 – 10 kV and 187 of 35 – 110 kV replaced.
- The complex repair of the 49 substations of 35 – 110 kV was implemented.
- The repair of the 422 transformers 6 – 10 kV and 1133 transformer substations of 6 – 10/0,4 kV was implemented.

In 2009:

- 30 kilometers of the 35 – 110 kV wires replaced and 792 kilometers were repaired. There were 253 kilometers of the 0,4 – 10 kV wires replaced and 1 567 kilometers were repaired. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire; the M-120 wires were replaced with the AS-300/48 wires.
- 619 circuit breakers of 6 – 10 kV and 216 of 35 – 110 kV replaced.
- The complex repair of the 38 substations of 35 – 110 kV was implemented.
- The repair of the 376 transformers 6 – 10 kV and 1157 transformer substations of 6 – 10/0,4 kV was implemented.

In 2010:

- 61 kilometers of the 35 – 110 kV wires replaced and 848 kilometers were repaired. There were 306 kilometers of the 0,4 – 10 kV wires replaced and 1443 kilometers were repaired. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire; the M-120 wires were replaced with the AS-300/48 wires.
- 664 circuit breakers of 6 – 10 kV and 179 of 35 – 110 kV replaced.
- The complex repair of the 35 substations of 35 – 110 kV was implemented.
- The repair of the 375 transformers 6 – 10 kV and 1081 transformer substations of 6 – 10/0,4 kV was implemented.

In 2011:

- There were 23 kilometers of the 35 – 110 kV wires replaced and 652 kilometers were repaired. There were 361 kilometers of the 0,4 – 10 kV wires replaced and 1127 kilometers were repaired. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire; the M-120 wires were replaced with the AS-300/48 wires.
- There were 655 circuit breakers of 6 – 10 kV and 185 of 35 – 110 kV replaced.
- The complex repair of the 36 substations of 35 – 110 kV was implemented.
- The repair of the 393 transformers 6 – 10 kV and 1157 transformer substations of 6 – 10/0,4 kV was implemented.

In 2012:

- There were 16,4 kilometers of the 35 – 110 kV wires replaced and 612 kilometers were repaired. There were 335 kilometers of the 0,4 – 10 kV wires replaced and 1138 kilometers were repaired. The AS-150 wire was replaced with the AS-185; the AS-70 and AS-95 wires were replaced with the AS-120 wire; AS-120 wire was replaced with the AS-240 wire; the M-120 wires were replaced with the AS-300/48 wires.

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- There were 686 circuit breakers of 6 – 10 kV and 194 of 35 – 110 kV replaced.
- The complex repair of the 51 substations of 35 – 110 kV was implemented.
- The repair of the 566 transformers 6 – 10 kV and 1067 transformer substations of 6 – 10/0,4 kV was implemented.

The difference between values of ERUs generated in 2012 year indicated in the PDD and in the Monitoring Report is explained in the next follow. Indicated in the PDD estimation for 2012 year is prognoses on the annual values for 2003-2011 years.

Identified problem areas applicable to project implementation status, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CL01, CL02)

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 prices on sold and bayed electric energy, availability of work power and finances, state politic in energetic branch, 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, such as state reporting form 1B-TVE, reports on performed works, statements on accepted-transmitted electric energy, 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.

Identified problem areas applicable to Compliance of the monitoring plan with the monitoring methodology, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR02)

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, including the quality control and quality assurance procedures. These procedures are mentioned in the section "References" of this report.

The function of the monitoring equipment, including its calibration status, is in order. Calibration of project measuring devices (mainly power meters at "Luhansk Energy Interconnection" LLC substations) are provided by accredited State Enterprises "Luhansk Scientific Production Center for the Standardization, Metrology and Certification", and the Manufacturer. "Luhansk Energy Interconnection" LLC installed automatized system for electric energy account, mentioned system is in work and calibrated in appropriate way.

The evidence and records used for the monitoring are maintained in a traceable manner. Based on electric energy acceptance-transmittance statements monthly and yearly state report forms 1B-TVE are used by project developer for emission reduction calculations.

The data collection and management system for the project is in accordance with the monitoring plan. The data collection system is described in the determined PDD and Monitoring Report, in work during the verification period, reliable and transparent.

Identified problem areas applicable to project data management, project participant's responses and Bureau Veritas Certification conclusions are listed in the Annex A of this Report (refer to CAR03- CAR06)

3.7 Verification regarding programmes of activities (102-110)

"Not applicable"

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the initial, 1st periodic verification of the project title Project in Luhansk Region, 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.

The management of "Eco-Elta" LLC is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring and Verification Plan indicated in the final PDD version 1.1. The development and maintenance of records and reporting procedures in

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accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report version 1.1 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. 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.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or 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, with a reasonable level of assurance, the following statement:

Reporting period: From 01/01/2008 to 31/12/2012

Baseline emissions	: 13 195 803	tonnes of CO ₂ equivalent.
Project emissions	: 6 697 998	tonnes of CO ₂ equivalent.
Emission Reductions	: 6 497 805	tonnes of CO ₂ equivalent.

From 01/01/2008 to 31/12/2008

Baseline emissions	: 2 677 656	tonnes of CO ₂ equivalent.
Project emissions	: 1 362 853	tonnes of CO ₂ equivalent.
Emission Reductions	: 1 314 803	tonnes of CO ₂ equivalent.

From 01/01/2009 to 31/12/2009

Baseline emissions	: 2 474 415	tonnes of CO ₂ equivalent.
Project emissions	: 1 312 593	tonnes of CO ₂ equivalent.
Emission Reductions	: 1 161 822	tonnes of CO ₂ equivalent.

From 01/01/2010 to 31/12/2010

Baseline emissions	: 2 651 159	tonnes of CO ₂ equivalent.
Project emissions	: 1 366 977	tonnes of CO ₂ equivalent.
Emission Reductions	: 1 284 182	tonnes of CO ₂ equivalent.

From 01/01/2011 to 31/12/2011

Baseline emissions	: 2 757 759	tonnes of CO ₂ equivalent.
Project emissions	: 1 400 492	tonnes of CO ₂ equivalent.
Emission Reductions	: 1 357 267	tonnes of CO ₂ equivalent.

From 01/01/2012 to 31/12/2012

Baseline emissions	: 2 634 814	tonnes of CO ₂ equivalent.
Project emissions	: 1 255 083	tonnes of CO ₂ equivalent.
Emission Reductions	: 1 379 731	tonnes of CO ₂ equivalent.

5 REFERENCES

Category 1 Documents:

Documents provided by Eco-Elta LLC that relate directly to the GHG components of the project.

- /1/ Project Design Document "The Reconstruction of the Electricity Grid of the "Lugansk Energy Interconnection" LLC. in order to lower the electricity transportation losses" version 1.1 dated 25/10/2012
- /2/ Monitoring Report "The Reconstruction of the Electricity Grid of the "Lugansk Energy Interconnection" LLC. in order to lower the electricity transportation losses" version 1.0 dated 27/03/2013
- /3/ Monitoring Report "The Reconstruction of the Electricity Grid of the "Lugansk Energy Interconnection" LLC. in order to lower the electricity transportation losses" version 1.1 dated 04/04/2013
- /4/ Emission Reduction Calculation Excel-file "LuhOblEnergoERU.xls"
- /5/ Letter of Approval # 3899/23/7 issued by State Environment investment Agency of Ukraine 19/12/2012
- /6/ Letter of Approval #DOPpek-4430-30/11550/13/MK/EBS issued by Ministry of Environment protection of Poland

Category 2 Documents:

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

- /1/ Electricity balance and losses in "LEO" LLC in 2005 year (1B-TRE form)
- /2/ Electricity balance and losses in "LEO" LLC in 2004 year (1B-TRE form)
- /3/ Electricity balance and losses in "LEO" LLC in 2003 year (1B-TRE form)
- /4/ Electricity balance and losses in "LEO" LLC in 2002 year (1B-TRE form)
- /5/ Electricity balance and losses in "LEO" LLC in 2011 year (1B-TRE form)
- /6/ Electricity balance and losses in "LEO" LLC in 2010 year (1B-TRE form)
- /7/ Electricity balance and losses in "LEO" LLC in 2009 year (1B-TRE form)
- /8/ Electricity balance and losses in "LEO" LLC in 2008 year (1B-TRE form)
- /9/ Electricity balance and losses in "LEO" LLC in 2007 year (1B-TRE form)
- /10/ Electricity balance and losses in "LEO" LLC in 2006 year (1B-TRE form)
- /11/ Order#199 dated 17/07/2012 On investment program confirmation
- /12/ Annex #1 for contract # Y-222-04/384-42-204 dated 05/05/2004. Measuring equipment periodical calibration and examination time schedule for 2004 year.
- /13/ Annex #1 to additional agreement #1 for contract #Y-222-04/384-42-204 dated 05/05/2004. Measuring equipment periodical calibration and examination time schedule for 2004 year.
- /14/ Annex #3 for contract # Y-222-04/384-42-204. Measuring equipment periodical calibration and examination time schedule for 2005 year.
- /15/ Annex #1 for contract #Y-42659-2006/y-22-06. Measuring equipment periodical calibration and examination time schedule for 2006 year.
- /16/ Annex #1 to additional agreement #1 for contract #42659-2006/y-22-06 dated 01/04/2006. Measuring equipment periodical calibration and examination time



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- schedule for 2006 year.
- /17/ Annex #5 to additional agreement #1 for contract #42659-2006/y-22-06. Measuring equipment periodical calibration and examination time schedule for 2007 year.
 - /18/ Annex #7 to additional agreement #1 for contract #42659-2006/y-22-06. Measuring equipment periodical calibration and examination time schedule for December 2007 year.
 - /19/ Annex #8 to additional agreement #1 for contract #42659-2006/y-22-06. Measuring equipment periodical calibration and examination time schedule for 2008 year.
 - /20/ Measuring devices list, which must be calibrated in 2008 year
 - /21/ Annex #1 to contract #42332-2007. Measuring equipment periodical calibration and examination time schedule for 2007 year.
 - /22/ Annex #1 to contract #2-232-07. Measuring equipment periodical calibration and examination time schedule for 2007 year in Lysychansk branch.
 - /23/ Measuring devices list, which must be calibrated in 2008 year in Lysychansk branch
 - /24/ Measuring devices list, which must be calibrated in 2009 year
 - /25/ Annex #3 to contract # Y-42-09/48172-2009 dated 4.01.2010. Measuring equipment periodical calibration and examination time schedule for 2010 year.
 - /26/ Annex #1 for additional agreement #4 for 03/04/2010. List of regulation documentation for measuring equipment
 - /27/ Annex #2 for additional agreement #4 for 03/04/2010. Contract work prices
 - /28/ Annex #3 to contract # Y-42-09/48172-2009 dated 03/02/2009. Measuring equipment periodical calibration and examination time schedule for 2010 year.
 - /29/ Annex #3 for additional agreement #6 to contract # Y-42-09/48172-2009 dated 03/02/2009. Measuring equipment periodical calibration and examination time schedule for 2010 year.
 - /30/ Annex #4 for additional agreement #7 to contract # Y-42-09/48172-2009 dated 03/02/2009. Measuring equipment periodical calibration and examination time schedule for 2011 year.
 - /31/ Annex #3 for additional agreement #10 to contract # Y-42-09/48172-2009 dated 03/02/2009. Measuring equipment periodical calibration and examination time schedule for 2011-January-February 2012.
 - /32/ Annex to contract #48031-2009/4-10-09 ated 13/02/2009. Measuring equipment periodical calibration and examination time schedule for 2009 year.
 - /33/ Annex #1 for contract # №4066/Y-55-12 dated 13/02/2012. Measuring equipment periodical calibration and examination time schedule for 2012 year.
 - /34/ Statement on availability of conditions for measuring devices repairs. Dated 12/03/2009
 - /35/ Statement #899/4 on work standard three phase power meter CE6808 valid till 01/12/2012
 - /36/ Statement #899/4 on work standard calibration device CY6800I/3R #63017 valid till 23/12/2012
 - /37/ Statement on acceptance-transmittance KL0000187/2 dated 28/04/2011 aerial line 0,4 kV from TS-148 L-4
 - /38/ Statement on acceptance-transmittance KL0000557/2 dated 29/11/2011 aerial



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- line 6 kV Substation Znamya Kommunizma – TS-110
- /39/ Statement on acceptance-transmittance KL0000557/2 dated 29/11/2011 aerial line 6 kV Substation Znamya Kommunizma – TS-110
 - /40/ Statement on acceptance-transmittance dated 01/02/2011 aerial line 0.4 kV from TS-728 retrofit with wires SIP usage
 - /41/ Statement on acceptance-transmittance dated 08/2011 aerial line 0.4 kV from Box transformation substation-2709 retrofit
 - /42/ Statement on acceptance-transmittance dated 07/2011 aerial line 0.4 kV from Box transformation substation-3604 retrofit
 - /43/ Bill #4026 dated 14/05/2004 for consumed electricity for 10/04/2004-10/05/2004
 - /44/ Report on active electric energy usage for 14/04/2004-13/05/2004
 - /45/ Bill #69-K dated 27/01/2004 for consumed active electricity, calculations of reactive energy flows for January 2005 RMSE "Luhanskvoda"
 - /46/ Bill #936 dated 25/01/2006 for consumed electricity for 25/12/2005-25/01/2006
 - /47/ Report on active electric energy usage for 14/04/13/05/2004
 - /48/ Bill #143ks/2 for consumed electricity in February 2007
 - /49/ Report on active electric energy usage for 14/04/13/05/2004 business owner Okhtin S.P.
 - /50/ Bill #143ks/11/1 dated 25/11/2006 for consumed electricity in February 2007
 - /51/ Report on active electric energy usage in October 2008 business owner Okhtin S.P.
 - /52/ Bill #143ks/11/1 dated 20/11/2009 for consumed electricity in January 2009
 - /53/ Report on active electric energy usage by JSC "Stakhanovskyi ferro alloy plant" for 01/12/2009-01/01/2010
 - /54/ Report on active electric energy usage by JSC "Stakhanovskyi ferro alloy plant" for 01/12/2010-01/01/2011
 - /55/ Report on active electric energy usage by JSC "Stakhanovskyi ferro alloy plant" for 01/12/2011-01/01/2012
 - /56/ Report on active electric energy usage by JSC "Stakhanovskyi ferro alloy plant" in 01/10/2012-01/11/2012
 - /57/ Certificate #139 of electric inspection service controller Novikova O.B.
 - /58/ Certificate #1542 dated 10/12/2009 of ORBP foreman Klopov R.V.
 - /59/ Certificate #12789 dated 19/07/2012 of metering equipment exploitation group foreman Omelchenko E.N.
 - /60/ Certificate #196 dated 04/03/2010 of ORBP foreman Cherepakhin V.P.
 - /61/ Certificate #8781 dated 01/07/2009 of foreman Hlukhoverya T.G.
 - /62/ Certificate #7981 dated 09/09/2008 of air lines production department foreman Donchenko V.N.
 - /63/ Certificate #412 dated 12/09/2011 of head foreman Ivankov O.P.
 - /64/ Certificate #36/185 dated 01/02/2005 of Vres head foreman Kunakov V.N.
 - /65/ Certificate #41082 dated 19/07/2012 of foreman Ushakov S.N.
 - /66/ Certificate #7779 dated 03/08/2008 of air lines repair wireman Byelyh P.V.
 - /67/ Certificate #45081 dated 18/02/2005 of relay service wireman Lapchenko S.N.
 - /68/ Passport and calibration certificate on power meter LZQM111.02-534 prod. #64837, calibrated 02/08/2005
 - /69/ Passport and calibration certificate on power meter LO-3T5-1M1 prod. #150,



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- calibrated 04/08/2004
- /70/ Passport and calibration certificate on power meter LEO prod. #00006303, 09/11/2004
 - /71/ Passport and calibration certificate on power meter SOE-5020 prod. #0017029.
 - /72/ Passport and calibration certificate on power meter SOLO prod. #001269, April 2004
 - /73/ Passport and calibration certificate on power meter CE6803V prod. #49095056, October 2004
 - /74/ Passport and calibration certificate on power meter CE6803B prod. #4n109357, calibrated November 2004
 - /75/ Passport and calibration certificate on power meter CE6803B prod. #40029454, calibrated November 2004
 - /76/ Passport and calibration certificate on power meter ET3A557N8MT prod. #40029454, calibrated November 2004
 - /77/ Passport and calibration certificate on power meter Energiya-9 type STK1-10 prod. #0291, calibrated 29/12/2004
 - /78/ Passport and calibration certificate on power meter ST-EP prod. #000858, calibrated 12/07/2005
 - /79/ Passport and calibration certificate on power meter ACE-5000 prod. #27666, calibrated 16/11/2005
 - /80/ Passport and calibration certificate on power meter EMS 134.31.4 prod. #236663, calibrated 10/01/2005
 - /81/ Passport and calibration certificate on power meter Energiya-9 prod. #49470, calibrated 07/12/2005
 - /82/ Passport and calibration certificate on power meter CE6803V prod. #5n801782, calibrated November 2005
 - /83/ Passport and calibration certificate on power meter Meridian SOE-1.02.2 prod. #0333200, calibrated 16/12/2005
 - /84/ Passport and calibration certificate on power meter SO-EA09, calibrated 14/03/2005
 - /85/ Passport and calibration certificate on power meter CE6811 prod. #1656295, calibrated June 2005
 - /86/ Passport and calibration certificate on power meter Mercuriy 230 AR-03 prod. #00421534, calibrated 03/07/2005
 - /87/ Passport and calibration certificate on power meter NIK2012 prod. #0012647, calibrated 13/10/2006
 - /88/ Passport and calibration certificate on power meter NIK2301 prod. #000010, calibrated 05/09/2006
 - /89/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #64570, calibrated 04/2006
 - /90/ Passport and calibration certificate on power meter CE6807B prod. #62080960, calibrated February 2006
 - /91/ Passport and calibration certificate on power meter CE6811 prod. #68817811, calibrated August 2006
 - /92/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #34486



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- /93/ Passport and calibration certificate on power meter CE6807B prod. #68126655, calibrated October 2006
- /94/ Passport and calibration certificate on power meter NP-06 TD ME.3F.TxPD-U prod. #565134, calibrated December 2007
- /95/ Passport and calibration certificate on power meter NIK2102 prod. #0108927, calibrated 01/11/2007
- /96/ Passport and calibration certificate on power meter NIK2301 prod. #0108927, calibrated 26/03/2007
- /97/ Passport and calibration certificate on power meter CO-6CC prod. #00506, calibrated 13/05/2007
- /98/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #166408 calibrated 01/2007
- /99/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #34486 calibrated 02/2007
- /100/ Passport and calibration certificate on power meter NP-06 TD MME.1F.1SM-U
- /101/ Passport and calibration certificate on power meter NP-06 TD MME.3FD.SMxPD-U
- /102/ Passport and calibration certificate on power meter Kaskad-3.10/2.0-11 prod. #000394
- /103/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #166408 calibrated 01/2008
- /104/ Passport and calibration certificate on power meter LZQJ-XC prod. #3436959 calibrated IV quarter of 2008
- /105/ Passport and calibration certificate on power meter NP-06 TD MME.3FD.SMxPD-U calibrated 03/07/2010
- /106/ Passport and calibration certificate on power meter Mercuriy 201 prod. #09583829, calibrated 22/11/2010
- /107/ Passport and calibration certificate on power meter Energiya-9 CTK1-10K5 prod. #154073 calibrated 12/2010
- /108/ Passport and calibration certificate on power meter MTX prod. #191110 4th quarter of 2010
- /109/ Passport and calibration certificate on power meter ST-EA05D prod. #027145 2nd quarter of 2010
- /110/ Passport and calibration certificate on power meter NIK2301 prod. #0100806, calibrated 22/04/2011
- /111/ Passport and calibration certificate on power meter NIK2102 prod. #3513175, calibrated 26/09/2011
- /112/ Passport and calibration certificate on power meter LZQM prod. #910435 calibrated 01/03/2011
- /113/ Passport and calibration certificate on power meters LEO (136 things) calibrated 15/12/2011
- /114/ Passport and calibration certificate on power meter ET3B6E8HLM8-20 prod. #41710 calibrated 02/02/2011
- /115/ Passport and calibration certificate on power meter ET3B6E8HLM8-20 prod. #44066 calibrated 3rd quarter 2011
- /116/ Passport and calibration certificate on power meter CE201S7145-1AZ prod. #009307047394901 calibrated 03/08/2011

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- /117/ Passport and calibration certificate on power meter CE302S33745 prod. #006901046393178 calibrated 04/07/2011
- /118/ Passport and calibration certificate on power meter ST-EA08D
- /119/ Passport and calibration certificate on power meter COEA09M2 prod. #402776, calibrated 3rd quarter 2011
- /120/ Passport and calibration certificate on power meter LZQJ-XC prod. #3749264, calibrated 17.08.2012
- /121/ Passport and calibration certificate on power meter NIK2301 prod. #0802169, calibrated 20/09/2012
- /122/ Passport and calibration certificate on power meter NIK2301 prod. #0168575, calibrated 16/08/2012
- /123/ Passport and calibration certificate on power meter NIK2301 prod. #4689667, calibrated 04/04/2012
- /124/ Passport and calibration certificate on power meter CE101 S6 145 M6 prod. #007789053019176, calibrated 06/02/2012
- /125/ Passport and calibration certificate on power meter COEA09M2 prod. #541611
- /126/ Passport and calibration certificate on power meter ST-EA08D? calibrated 18/01/2012
- /127/ Passport and calibration certificate on power meter CE6807B prod. #009131054003948, calibrated 1st quarter 2012
- /128/ Passport and calibration certificate on power meter CE6807B prod. #201101001699, calibrated 12.01.2012

Persons interviewed:

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

- /1/ Oleksiy Oleksandrovych Bepalov – Director of "Luhansk Energy Interconnection" LLC
- /2/ Denys Sergioyvych Beletskyi – head of "Luhansk Energy Interconnection" LLC planning-technical department
- /3/ Maksym Ivanovych Rogovoi – representative of "Eco-Elta" LLC

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APPENDIX A: VERIFICATION PROTOCOL

VERIFICATION PROTOCOL

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 approvals 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?	The project written approvals were obtained from the both parties involved. Letter of Approval #3899/23/7 issued by State Environment investment Agency of Ukraine 19/12/2012 and Letter of Approval #DOPpek-4430-30/11550/13/MK/EBS issued by Ministry of Environment protection of Poland 22/03/2013 <u>CAR01</u> Please correctly indicate name of Poland DFP	CAR01	OK
91	Are all the written project approvals by Parties involved unconditional?	The abovementioned project approvals are unconditional	OK	OK
Project implementation				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The Project has been implemented in accordance with the determined PDD. <u>CL01</u> Please explain relations between Dutch enterprise Carbontrade N.V. indicated as project participant and Poland as project Participant <u>CL02</u> Please explain difference between values of ERUs	CL01 CL02	OK OK


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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		indicated in the PDD and in the monitoring report for 2012 year		
93	What is the status of operation of the project during the monitoring period?	The project was in operation during the monitoring period	OK	OK
Compliance 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?	The monitoring was provided in accordance with the determined PDD, which is available at JI UNFCCC web-site <u>CAR02</u> Please use the latest version 7.0.0 of the “Tool for the demonstration and assessment of additionality”	CAR02	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) above, 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?	The key factors listed in 23 (b) (i)-(vii) influencing the baseline emissions and activity level of the project are taken into account in appropriate way	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	The data sources, such as state reporting form 1B-TVE used for calculating emission reductions are clearly identified, reliable and transparent	OK	OK


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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	The emission factor for electricity transportation at Ukrainian grids is in line with the National GHG Inventory Report for 1990-2010 years and orders of Ukrainian DFP	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?	The calculation of emission reductions are based on conservative assumptions and most plausible future scenarios in a transparent manner	OK	OK
Applicable to JI SSC projects only_Not applicable				
Applicable to bundled JI SSC projects only_Not applicable				
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	The monitoring plan has not been revised by project participants during the monitoring period	OK	OK
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	Not applicable	OK	OK


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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	establishment of monitoring plans?			
Data management				
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 is in accordance with the monitoring plan contained in the determined PDD	OK	OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	The function of the monitoring equipment, including its calibration status is in order <u>CAR03</u> Please add data on project electricity meters <u>CAR04</u> Please add correct name of state enterprise that provides calibration of “Luhansk Energy Interconnection” LLC automatic measuring system	CAR03 CAR04	OK OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records are used in a transparent manner	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	<u>CAR05</u> Please clearly describe data collection and management system for the Project <u>CAR06</u> Please note that data monitored and required for emission reductions calculation will be kept two years after the last transfer and provide reference	CAR05 CAR06	OK OK



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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		on relevant order issued by “Luhansk Energy Interconnection” LLC		
Verification regarding programmes of activities (additional elements for assessment)_Not applicable				
Applicable to sample-based approach only_Not applicable				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarification and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<u>CAR01</u> Please correctly indicate name of Poland DFP	90	corrected	The issue is closed
<u>CAR02</u> Please use the latest version 7.0.0 of the “Tool for the demonstration and assessment of additionality”	94	corrected	The issue is closed
<u>CAR03</u> Please add data on project electricity meters	101(b)	The full list of the meters with the dates of the installations and the calibrations was provided to the AIE.	The issue is closed


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<u>CAR04</u> Please add correct name of state enterprise that provides calibration of “Luhansk Energy Interconnection” LLC automatic measuring system	101(b)	Done	The issue is closed
<u>CAR05</u> Please clearly describe data collection and management system for the Project	101(d)	See sections B and B.2.2	The issue is closed
<u>CAR06</u> Please note that data monitored and required for emission reductions calculation will be kept two years after the last transfer and provide reference on relevant order issued by “Luhansk Energy Interconnection” LLC	101(d)	See sections B and B.2.2	The issue is closed
<u>CL01</u> Please explain relations between Dutch enterprise Carbontrade N.V. indicated as project participant and Poland as project Participant	92	The LoA was issued by Poland as the potential buyer for the ERUs was a Polish company. But the project owner have decided to change the buyer, so the Project participants are different from the ones in the PDD.	The issue is closed
<u>CL02</u> Please explain difference between values of ERUs indicated in the PDD and in the monitoring report for 2012 year	92	In the PDD the value for 2012 was calculated using the planed data and the Monitoring Report uses the actual data for the year.	The issue is closed

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