VERIFICATION REPORT
SKHIDENERGO LLC

VERIFICATION OF THE RECONSTRUCTION OF THE UNITS AT THE STRUCTURE UNIT "LUHANSKAYA TPP" OF THE "SKHIDENERGO" LTD.

(THIRD PERIODIC FOR 01/04/2011-31/12/2011)

REPORT NO. UKRAINE-VER/0421/2012

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-ver/0421/2012

VERIFICATION REPORT "RECONSTRUCTION OF THE UNITS AT THE STRUCTURE UNIT "LUHANSKAYA TPP" OF THE "SKHIDENERGO" LTD"

Date of first issue:	Organizational unit:
02/03/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
"Skhidenergo" LLC	Oleksiy Zayats

Summary:

Bureau Veritas Certification has made the 3rd periodic verification of the "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd", JI Registration Reference Number UA1000206, project of "Skhidenergo" LLC located in Schastya town, Luhansk Region, Ukraine, and applying the 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 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 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 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 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 74973 tons of CO2eq for the monitoring period 01/04/2011-31/12/2011.

Report No.:	Subject Group:
Ukraine-ver/0421/2012	JI
Project title:	
Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd	
Work carried out by:	
Oleg Skoblyk – Team Leader, Lead verifier Vyacheslav Yeriomin – Team Member, Verifier	
Work reviewed by:	
Ivan Sokolov - Technical Reviewer Daniil Ukhanov – Technical Specialist	
Work approved by:	
Ivan Sokolov - Operational Manager	

Date of this revision:	Rev. No.:	Number of pages:
23/04/2012	01	29

Bureau Veritas Certification Holding SAS

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1 INTRODUCTION

"Skhidenergo" LLC has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd" (hereafter called "the project") at Schastya town, 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 and monitoring plan 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:

Oleg Skoblyk
Bureau Veritas Certification Team Leader, Climate Change Verifier

Vyacheslav Yeriomin
Bureau Veritas Certification Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Technical Reviewer

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 "Elta-Eco" LLC and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology (if applicable) 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 01/03/2012 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 "Skhidenergo" LLC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
"Skhidenergo" LLC	➢ 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 ➢ Training of personnel ➢ Quality management procedure and technology ➢ Internal audits and check-ups
CONSULTANT "Elta-Eco" LLC	➢ 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.

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 4 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

No FARs are available from previous verifications.

3.2 Project approval by Parties involved (90-91)

Written project approval by the Host Party has been issued by the National Environment investment Agency of Ukraine, Letter of Approval #752/23/07 dated 09/06/2010. Letter of Approval CFCarbonII/01/2010 dated 3/12/2010 has been issued by United Kingdom Department of Energy and Climate Change.
The abovementioned written approval is unconditional.

3.3 Project implementation (92-93)

The main goal of the project is reduction of specific fuel consumption per one MW of electricity supplied to the grid. Luhanska Thermal Power Plant supply heat energy to local consumers, project developer excludes thermal energy supply from the project for conservativeness.

Next works were provided on TPP's Units during the monitoring period:

Generating Unit № 9:

1) The replacement of the gas ducts and the pipeline turns;
2) The repairs of the screen pipes;

3) The repairs of the mill with the electric motor bearing replacement;
4) The replacement of the first air ducts at the burners;
5) The repairs of the boiler brickworks;
6) The dismantling and repairs of the boiler thermal insulation system;
7) The main oil pump repair at the turbine;
8) The circulating water ducts armouring at the turbine;
9) The anticorrosive coating of the deaerators inner surface of the electricity generator;

Generating Unit № 10:
1) The boiler unit brickwork thermal insulation;

Generating Unit № 11:
1) The replacement of the screen pipelines and ducts at the boiler;
2) The major overhaul and repair of the mill;
3) The boiler control group of the turns cleaning;
4) The repairs of the boiler brickworks;
5) The dismantling and repairs of the boiler thermal insulation system;
6) The overhaul and repairs of the steam pipelines of the turbine;
7) The repairs of the main oil pump of the turbine;
8) The repairs of the condensers of the turbine;
9) The dismantling and repairs of the generator thermal insulation system;;
10) The replacement of the gas cooler;

Generating Unit № 13:
1) The replacement of the screen pipelines and ducts at the boiler;
2) The replacement of the DS-13 armor at the boiler;
3) The repairs of the DS rotor;
4) The repairs of the mill with the replacement of the Du-1300 compensators;
5) The dismantling and repairs of the boiler thermal insulation system;
6) The ultra-sound diagnostics of the pipeline turns of the turbine and their replacement and repairs where needed;
7) The replacement of the oil cooler of the steam electric heater B №1;
8) The replacement of the heating surface ISV-6;
9) The dismantling and repairs of the turbogenerator thermal insulation system;
10) The anticorrosion coating of the turbogenerator;

Generating Unit № 14:
1) The boiler screen pipelines, ducts and duct turns repair;
2) The trimming of the control groups of the turns at the non-heated zone of the boiler;
3) The boiler unit brickworks repairs;
4) The dismantling and repairs of the boiler thermal insulation system;
5) The repairs of the steam electric heater B;

6) The dismantling and repairs of the turbine thermal insulation system;
7) The anticorrosion coating of the turbogenerator;

Generating Unit № 15:
1) The boiler screen pipelines, ducts and duct turns repair and replacement;
2) The repairs of the 1-4 burners at the boiler;
3) The replacement of the exhaust burners cooling jumpers;
4) The boiler unit brickworks repairs;
5) The dismantling and repairs of the boiler thermal insulation system;
6) The replacement of the turbine bearing № 1;
7) The replacement of the oil shields of the turbine;
8) The repairs of the regulating valves №1 and 4;
9) The repairs of the main oil pump of the turbine;
10) The replacement of the exhaust valve of the high-pressure heater of the turbine;
11) The dismantling and repairs of the turbogenerator thermal insulation system;
12) The anticorrosion coating of the turbogenerator;

Mid repairs, capital and permanent repairs a common practice in Ukraine energetic industry. Time schedule of routine maintenance was provided by the project developer in the monitoring report. The Skhidenergo documents dividing project and routine repair works was provided to AIE and indicated in the section 5 REFERENCES in table Category 2 documents.

The difference between ERUs indicated in the determined PDD and in the Monitoring Report was explained in the next way: calculation of ERUs was made on factual data, which is different from annual data indicated in the PDD.

CAR01-02, CL01-02 and their resolutions/conclusions applicable to the project implementation status are listed in the APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL (Table 2) below

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 or enhancements of net removals, key factors, such as total electric energy output, quantity of each fuel

used in electricity production, emission factors, oxidation factors, net calorific values for each kind of fuel, 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 were taken into account, as appropriate.

Data sources used for calculating emission reductions or enhancements of net removals, such as TPPs statistic report 3-tech forms, laboratory reports on coal and heavy fuel oil NCV, reports of fuel-transport department 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 or enhancements of net removals is based on conservative assumptions and the most plausible scenarios in a transparent manner.

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, including the quality control and quality assurance procedures.

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

Power meters are within the calibration interval. During the monitoring period power meters were replaced by operating personnel of Luhanska TPP Electric Department and representatives of State Enterprise Luhansk State Centre of Standardization and Metrology. Replacement of power meters types A1R, CTK-3, EuroAlpha to power meters Actaris SL 7000 will improve applicability of automatic system for commercial accounting of power consumption of Skhidenergo LLC. Replacement of power meters is a part of automatic system for commercial accounting of power consumption updating, provided on Skhidenergo LLC TPPs (Zyevska, Luhanska, Kurakhovska) in 2011 year. Power meters are calibrated by Luhansk SCSM.

The commercial account of consumed coal is performed on wagon scales VVET-75. The amount of coal consumed in project frames is measured by coal belt scales Ramsey-14 production ##9430428, 9430429 installed between coal warehouse and coal mills. Ramsey-14 scales are calibrated by Production Measuring Laboratory of Luhanska TPP each quarter.

The amount of heavy fuel oil consumed by TPP is measured by measuring line three times each day; the daily consumption is recalculated into the mass units.

The natural gas consumption is measured by gas meter Flowtec-2, which is a property of gas Supply Company "Luhanskoblgaz" and calibrated by Ukrainian Centre for Standardization and Metrology in Luhansk Region.

The NCV of coal and heavy fuel oil is measured by TPPs Chemical Laboratory. The samples of coal and heavy fuel oil are analysed each five days. The examples of analysis protocols are provided to the verification team. The data on natural gas NCV is indicated in monthly certificates of gas supplying company.

Production Measuring Laboratory and Chemical Laboratory of Luhanska TPP are certified by SE Luhansk State Centre of Standardization and Metrology. Accreditation certificates is valid during the monitoring period was provided to the verification team.

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

The difference between emissions of CO2 indicated in the 2-tp form and emission reduction calculations is explained by amount of fuel used for electricity production in project activity not include amount of fuel used for thermal energy supply.

The data collection and management system for the project is in accordance with the monitoring plan. The data flow scheme provided in the monitoring report is objective and functional.

CAR03, CAR04 and their resolutions/conclusions applicable to the project data management are listed in the APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL (Table 2) below.

3.7 Verification regarding programmes of activities (102-110)

"Not applicable"

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 3rd periodic verification of the "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd" Project in Schastye town, Luhansk Region, Ukraine, which applies the 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 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 "Skhidenergo" 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 2.2.1. The development and maintenance of records and reporting procedures in 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. The key difference between the estimates and the actual values is that the average fuel consumption per 1 unit of produced energy is much higher than anticipated. In 2011 the value was 0.4298 ton of equivalent fuel per 1 MW compared to 0.4093 ton of equivalent fuel per 1 MW that was estimated at the time of PDD completion. Since non-modernised blocks continue to operate, the average fuel consumption is higher than anticipated

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 01/04/2011 to 31/12/2011

Baseline emissions	: 4041302	tonnes of CO2 equivalents.
Project emissions	: 3966329	tonnes of CO2 equivalents.
Emission Reductions	: 74973	tonnes of CO2 equivalents.

5 REFERENCES

Category 1 Documents:
Documents provided by "Elta-Eco" LLC that relate directly to the GHG components of the project.

/1/ Project Design Document "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd" version 2.2.1 dated 12/02/2010
/2/ Monitoring Report "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd" version 1.0 dated 28/02/2012
/3/ Monitoring Report "Reconstruction of the units at the Structure Unit "Luhanskaya TPP" of the "Skhidenergo" Ltd" version 1.1 dated 08/04/2012
/4/ ERUs calculation model Excel file "calculations _Reconstruction of the units at the Structure Unit _Luhanskaya TPP_of the_Skhidenergo_ ltd._ (01.04-31.12.2011).xls"
/5/ Letter of Approval #752/23/07 issued by National Environmental Investment Agency of Ukraine dated 09/06/2010
/6/ Letter of Approval CFCarbonII/01/2010 issued by the UK Department of Energy and Climate Change 03/12/2010

Category 2 Documents:
Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/ Report on fuel, heat and electric energy consumption, form 11mtp for 2011
/2/ Report on fuel, heat and electric energy consumption, form 11mtp for first half year 2011
/3/ Form 2tp water consumption for 1 quarter 2011
/4/ Form 2tp water consumption for 2 quarter 2011
/5/ Form 2tp water consumption for 3 quarter 2011
/6/ Form 2tp water consumption for 4 quarter 2011
/7/ Form 6-tp Report on TPPs work for 2011 year
/8/ Form 2tp air protection for 1 quarter 2011
/9/ Form 2tp air protection for 2 quarter 2011
/10/ Form 2tp air protection for 3 quarter 2011
/11/ Form 2tp air protection for 2011 year
/12/ Form 3-tech for December 2011
/13/ Form 3-tech for November 2011
/14/ Form 3-tech for October 2011
/15/ Form 3-tech for September 2011
/16/ Form 3-tech for August 2011
/17/ Form 3-tech for July 2011
/18/ Form 3-tech for June 2011
/19/ Form 3-tech for May 2011
/20/ Form 3-tech for April 2011
/21/ Form 3-tech for March 2011
/22/ Protocol #67 on coal sampling analysis for 01-05/12/2011

/23/ Protocol #66 on coal sampling analysis for 26-30/11/2011
/24/ Protocol #59 on coal sampling analysis for 21-25/10/2011
/25/ Protocol #51 on coal sampling analysis for 11-15/09/2011
/26/ Protocol #44 on coal sampling analysis for 06-10/08/2011
/27/ Protocol #40 on coal sampling analysis for 16-20/07/2011
/28/ Protocol #35 on coal sampling analysis for 21-25/06/2011
/29/ Protocol #28 on coal sampling analysis for 16-20/05/2011
/30/ Protocol #20 on coal sampling analysis for 06-10/04/2011
/31/ Protocol #14 on coal sampling analysis for 06-10/03/2011
/32/ Natural gas characteristics for March 2011
/33/ Natural gas characteristics for April 2011
/34/ Natural gas characteristics for May 2011
/35/ Natural gas characteristics for June 2011
/36/ Natural gas characteristics for July 2011
/37/ Natural gas characteristics for August 2011
/38/ Natural gas characteristics for September 2011
/39/ Natural gas characteristics for October 2011
/40/ Natural gas characteristics for November 2011
/41/ Natural gas characteristics for December 2011
/42/ Technical act 18sg on fact natural gas consumption for June 2011
/43/ Technical act 36sg on fact natural gas consumption for July 2011
/44/ Technical act on fact natural gas consumption for August 2011
/45/ Technical act 37sg on fact natural gas consumption for September 2011
/46/ Technical acts 36sg and 37sg on fact natural gas consumption for October 2011
/47/ Technical act 101sg on fact natural gas consumption for November 2011
/48/ Technical act 141sg on fact natural gas consumption for December 2011
/49/ Technical act on fact natural gas consumption for January 2011
/50/ Technical act 36sg on fact natural gas consumption for February 2011
/51/ Technical act 36sg on fact natural gas consumption for March 2011
/52/ Technical act 24sg on fact natural gas consumption for April 2011
/53/ Technical act 18sg on fact natural gas consumption for May 2011
/54/ Protocol #144 dated 15/04/2010 power plant equipment modernization and repair current and future schedule approval and correction by a special commission
/55/ Power meter SL7000 #53105797 connection Kommunarska2 dupl.
/56/ Power meter SL7000 #53105795 connection Kommunarska2 main.
/57/ Power meter SL7000 #53105790 connection Mikhaylovka2 main.
/58/ Power meter SL7000 #53105792 connection Mikhaylovka2 dupl.
/59/ Power meter SL7000 #53105788 connection Mikhaylovka1 main.
/60/ Power meter SL7000 #53105789 connection Mikhaylovka1 dupl.
/61/ Power meter SL7000 #53112309 connection Schastya dupl.
/62/ Power meter SL7000 #53102288 connection Schastya main
/63/ Power meter SL7000 #53112300 connection Petrovska main
/64/ Power meter SL7000 #53102307 connection Petrovska dupl
/65/ Power meter SL7000 #53112900 connection Kirova dupl
/66/ Power meter SL7000 #53112259 connection Kirova main

/67/ Power meter SL7000 #53112264 connection Kosiora dupl
/68/ Power meter SL7000 #53112262 connection Kosiora main
/69/ Power meter SL7000 #53112270 connection Poliv main
/70/ Power meter SL7000 #53112271 connection Poliv dupl
/71/ Power meter SL7000 #53112280 connection Novo-Aidarska main
/72/ Power meter SL7000 #53112252 connection Luhanska main
/73/ Power meter SL7000 #53112266 connection OVV-110 main
/74/ Power meter SL7000 #53112256 connection OVV-110 duplicate
/75/ Power meter SL7000 #53112253 connection Luhanska duplicate
/76/ Power meter SL7000 #53112254 connection Novo-Aidarska dupl
/77/ Power meter SL7000 #53112258 connection Novo-Aidarska NPS duplicate
/78/ Power meter SL7000 #53112257 connection Novo-Aidarska NPS main
/79/ Statement on power meters replacement dated 24/06/2011 connections Novoaydarska main and duplicate
/80/ Statement on power meters replacement dated 24/06/2011 connections Kirova, Petrovska, OVV main and duplicate
/81/ Statement on power meters replacement dated 24/06/2011 connections Novoaydarska NPS, Polyv main and duplicate
/82/ Statement on power meters replacement dated 24/06/2011 connections Kosiora, Schastya, Luhanska main and duplicate
/83/ Statement on power meters replacement dated 05/06/2011 connections Kommunarska-2, Mikhailivka-2 main
/84/ Statement on power meters replacement dated 06/07/2011 connections Kirova-1, Kirova-2, Lysychanska, Peremoha duplicate
/85/ Statement on power meters replacement dated 06/07/2011 connections Kommunarska-1, Mikhailivka-3, Mikhailivka-4, Yivileina duplicate
/86/ Statement on power meters replacement dated 05/07/2011 connections OVV-220, Mikhailivka-1 duplicate
/87/ Statement on power meters replacement dated 14/07/2011 connections Kommunarska-1, Mikhailivka-4, Peremoha main
/88/ Statement on power meters replacement dated 13/07/2011 connection Mikhailivka-3 main
/89/ Statement on power meters replacement dated 12/07/2011 connections Kirova-1, Kirova-2, Lysychanska, Yivileina main
/90/ Statement on power meters replacement dated 11/07/2011 connections OVV-220, Mikhailivka-1 main
/91/ Statement on power meters replacement dated 06/07/2011 connections Kirova-1, Kirova-2, Lysychanska, Peremoha duplicate
/92/ Statement on power meters replacement dated 06/07/2011 connections Kommunarska-1, Mikhailivka-3, Mikhailivka-4, Yivileina duplicate
/93/ Statement on power meters replacement dated 05/07/2011 connections Kommunarska-2, Mikhailivka-2 main and duplicate
/94/ Statement on power meters replacement dated 05/07/2011 connections OVV-220, Mikhailivka-1 dupl.
/95/ Statement on power meters replacement dated 11/07/2011 connections Sysoevo-220 KV, ShSOVV-2 main ad duplicate
/96/ Statement on power meters replacement dated 15/12/2011 connections

Sysoevo-220 KV main and dupl.

/97/ Statement on power meters replacement dated 10/08/2011 connection Socis main and duplicate

/98/ Statement on power meters replacement dated 08/08/2011 connection DSK

/99/ Statement on power meters replacement dated 02/08/2011 connection EYuM

/100/ Statement on power meters replacement dated 01/08/2011 connections ATP, ABZ

/101/ Statement on power meters replacement dated 08/08/2011 connection Sand pit

/102/ Statement on power meters replacement dated 22/07/2011 connection Baza ORSa

/103/ Annex to certificate #Pb306/2010 dated 24/12/2010 Luhanska TPP chemical laboratory cope of attestation

/104/ Passport on wagon coal tenzometric scales VVET-75 prod#8

/105/ Passport of power meter SL7000 #53112268 connection "Baza ORSa" and #53112272

/106/ Passport of power meter SL7000 #53112306 connection "EYiM" and #53112298 connection DSK

/107/ Passport of power meter SL7000 #53112286 connection ABZ and #53112289 connection ATC

/108/ Passport of power meter SL7000 #53112273 connection Socis

/109/ Passport of power meter SL7000 #53112288 connection Schastya and #53112259 connection Kirova

/110/ Passport of power meter SL7000 #53112257 connection Novoaidarska NPS and #53112289 connection Petrovska main

/111/ Passport of power meter SL7000 #53112266 connection OVV-110 main and #53112270 connection Poliv main

/112/ Passport of power meter SL7000 #53112262 connection Kosiora and #53112252 connection Luhanska

/113/ Passport of power meter SL7000 #53112280 connection Novoaidarska

/114/ Passport of power meter SL7000 #53105817 connection Yivileina and #53105771 connection OVV-220

/115/ Passport of power meter SL7000 #53105777 connection Kirova-2 and #53105778 connection Lysychanska

/116/ Passport of power meter SL7000 #53105795 connection Kommunarska-2 main and #53105785 connection Kirova-1 main

/117/ Passport of power meter SL7000 #53105790 connection Mykhailovka-2 main and #53105788 connection Mykhailovka -1 main

/118/ Passport of power meter SL7000 #53105816 connection Mykhailovka-4 main and #53105798 connection Mykhailovka -4 main

/119/ Passport of power meter EA #01198748, 01198730 connection Kirova-1

/120/ Passport of power meter EA #01198743 connection Komunarska-2 and #01198719 connection Komunarska-1

/121/ Passport of power meter EA #01198736 connection OVV-220 and #01198717 connection Juvileina

/122/ Passport of power meter EA #01198746 connection Lysychanska and #01198723 connection Peremoha

/123/ Passport of power meter EA #01198727 connection Mykhailivka-2 and

#01198738 connection Mykhailivka-1

/124/ Passport of power meter EA #01198720 connection Mykhailivka-3 and #01198725 connection Mykhailivka-4

/125/ Passport of power meter EA #01198740 connection Kosiora and #01198718 connection Schastya

/126/ Passport of power meter EA #01198729 connection Luhanska and #01198729 connection Poliv

/127/ Passport of power meter EA #01198739 connection OVV-110 and #01198741 connection Petrovska

/128/ Passport of power meter EA #01198735 connection Novoaidarska NPS and #01198745 connection Kirova

/129/ Passport of power meter EA #01198744 connection Novoaidarska

/130/ Statement on acceptance of power meter Enerhiya-9 #36044, 36094

/131/ Statement on acceptance of power meter Enerhiya-9 #36047, 36093

/132/ Statement on acceptance of power meter Enerhiya-9 #36094, 36094

/133/ Statement on acceptance of power meter Enerhiya-9 #36045

/134/ Statement on attestation # Pb306/2010 of Luhanska TPP chemical laboratory dated 24/12/2010

/135/ Certificate #644 dated 27/04/2011 on scales Ramsey-14 #09430428 state metrological attestation

/136/ Ramsey-14 coal belt scales #09430429 technical passport

/137/ Ramsey-14 coal belt scales #09430428 technical passport

/138/ Form#1 wastes for 2011 year

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/ O. N. Maslov – Head of Technical-Production Department

/2/ D. N Buimirskiy – Vice-Head of Ecology Department

/3/ B. D. Safonov – Head of Repairs Planning and Preparation Department

/4/ E. V. Aheenkova – Head of Chemical Laboratory

/5/ A.S. Laktionov – Head Engineer-Technologist of Heat Automatic and Measuring Department

/6/ V. A. Staritskaya – 4-grade wireman of Electric Department

/7/ M.I. Rohovoy – representative of "Elta-Eco" LLC

APPENDIX A: COMPANY PROJECT 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 has been approved by the Host Party (Letter of Approval #752/23/07 issued by National Environmental Investment Agency of Ukraine dated 09/06/2010) and the Sponsor Party (Letter of Approval CFCarbonII/01/2010 issued by the UK Department of Energy and Climate Change 3.12.2010)	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	All the written 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?	*CAR01* Also please explain difference between: - value of electric energy supplied to the grid and specific fuel rate in ERUs calculations and 11-mtp form - ERUs value indicated in the PDD and in the Monitoring Report - values of CO2 indicated in the monitoring	CAR01 CL01	

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		report and in the 2tp form *CL01* The 6-tp form indicates that capacity of Luhanska TPP has been dropped from 1425000 to 1363100 KW during 2011 year. Please explain reasons of capacity reduction and add in the Monitoring Report data on each Block capacity changes took place during the monitoring period *CL02* The permanent repairs, mid repairs, capital repairs are common practice on Ukraine power plants. Please indicate in the Monitoring Report data on repair periods for each Block	CL02	
93	What is the status of operation of the project during the monitoring period?	The project was in operation during whole monitoring period. Project measures was implemented during monitoring period are described in the monitoring report	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	The monitoring was occurred in accordance with the monitoring plan included in the determined PDD	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	final and is so listed on the UNFCCC JI website?			
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?	For the calculating emission reduction, key factors influencing the baseline emission and the activity level of the project and the risks associated with the project has been taken into account		
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	The data sources used for calculating emission reductions are clearly identified, reliable and transparent	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	The emission factors for fossil fuels and electricity production are in line with National GHG Inventory Report	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	appropriately justified of the choice?			
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 calculations of emission reduction are based on conservative assumptions and the most plausible future scenarios in a transparent manner	OK	OK
Applicable to 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 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	Not applicable	Not	Not

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?		applicable	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
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 during the monitoring period	OK	OK
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the	See section 99(a) of this protocol	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	original monitoring plan without changing conformity with the relevant rules and regulations for the 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 described in the monitoring plan		
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	*CAR02* Please provide in the monitoring report data on power meters calibration and replacement with name of power connection covering whole monitoring period	CAR02	
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records used for the monitoring are maintained in a traceable manner	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the	*CAR03* Please note in the monitoring report that the data collected and required for ERUs	CAR03	

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitoring plan?	calculation will be kept two years after the last ERUs transfer with reference on relevant order of Vostokenergo		
Verification regarding programmes of activities (additional 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
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE:	Not applicable	Not applicabl	Not applicabl

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(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 identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: − The types of JPAs; − The complexity of the applicable technologies and/or measures used; − The geographical location of each JPA; − The amounts of expected emission reductions of the JPAs being verified; − The number of JPAs for which emission reductions are being verified; − The length of monitoring		e	e

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	periods of the JPAs being verified; and − The samples selected for prior verifications, if any?			
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 ex ante assessment? (Optional)	Not applicable	Not applicable	Not applicable

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
CAR01 Also please explain difference between: - value of electric energy supplied to the grid and specific fuel rate in ERUs calculations and 11-mtp form - ERUs value indicated in the PDD and in the Monitoring Report - values of CO2 indicated in the monitoring report and in the 2tp form	92	1. The calculations were made on the monthly basis and the 11-mtp form is an annual one, so there could be the difference. 2. Explanation is provided in the section A.8 of the Monitoring Report The CO2 calculation in the 2-tp form covers all the fuel combusted at the TPP and the ERUs calculation covers only the fuel consumption for the electricity production (the heat is excluded)	The issues are closed based on explanations provided by the project developer
CAR02 Please provide in the monitoring report data on power meters calibration and replacement with name of power connection covering whole monitoring period	101(b)	The data on power meters are provided in the chapter B.2.1	The provided information is found adequate. The issue is closed.

CAR03 Please note in the monitoring report that the data collected and required for ERUs calculation will be kept two years after the last ERUs transfer with reference on relevant order of Vostokenergo	101(d)	Relevant order is mentioned in the section B of the Monitoring Report	The issue is closed.
CL01 The 6-tp form indicates that capacity of Luhanska TPP has been dropped from 1425000 to 1363100 KW during the 2011 year. Please explain reasons of capacity reduction and add in the Monitoring Report data on each Block capacity changes took place during the monitoring period	92	Clarification on power units remarking is provided in the section A.3 of the Monitoring Report	The issue is closed based on information, provided by the project developer
CL02 The permanent repairs, mid repairs, capital repairs are common practice on Ukraine power plants. Please indicate in the Monitoring Report data on repair periods for each Block	92	Information on Luhanska TPP repair campaign is added in the Section A.3 of the Monitoring Report	The issue is closed based on information, provided by the project developer