



VERIFICATION REPORT

CARBON MANAGEMENT COMPANY GMBH

VERIFICATION OF THE PROJECT POWER DISTRIBUTION SYSTEM MODERNIZATION OF PJSC «AES RIVNEOBLENERGO»

INITIAL AND FIRST PERIODIC
FOR THE PERIOD 01/01/2008 – 30/06/2012

REPORT No. UKRAINE-VER/0534/2012

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BUREAU VERITAS CERTIFICATION



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Client: Carbon Management Company GmbH	Client ref.: Alain Girardet

Summary:
Bureau Veritas Certification has made the initial and 1st periodic verification of the POWER DISTRIBUTION SYSTEM MODERNIZATION OF PJSC «AES RIVNEOBLENERGO» project of CARBON MANAGEMENT COMPANY GMBH located in Rivne 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 Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures. The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CR, CAR and FAR), presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. Installed equipment 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 954 021 tonnes of CO₂ equivalent for the monitoring period from 01/01/2008 to 30/06/2012.

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

Report No.: UKRAINE-ver/0534/2012	Subject Group: JI
Project title: Power distribution system modernization OF PJSC «AES RIVNEOBLENERGO»	
Work carried out by: Vyacheslav Yeriomin : Team Leader, Lead Verifier Vasiliy Kobzar: Team Member, Technical Specialist	
Work reviewed by: Ivan Sokolov – Internal Technical Reviewer Victoria Legka – Technical Specialist	
Work approved by: Ivan Sokolov – Operational Manager	
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1 INTRODUCTION

Carbon Management Company GMBH has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project Power distribution system modernization of PJSC «AES RIVNEOBLENERGO» (hereafter called “the project”) at Rivne 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

Vasiliy Kobzar



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Bureau Veritas Certification Technical Specialist

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification Internal Technical Reviewer

Victoria Legka
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 Carbon Management Company GmbH 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) 1.0 and 2.0 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 21/09/2012 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 Carbon Management Company GmbH and PJSC «AES Rivneoblenergo» were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
PJSC «AES Rivneoblenergo»	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 IT management Training of personnel Quality management procedures and technology Internal audits and check-ups
Carbon Management Company GMBH	Baseline methodology Monitoring plan Monitoring report Excel spreadsheets

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;



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(c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

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

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

3 VERIFICATION CONCLUSIONS

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

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

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 8 Corrective Action Requests and 1 Clarification Request.

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 were raised during determination.

3.2 Project approval by Parties involved (90-91)

Written project approval by the Ukraine #2757/23/7 dated 26/09/2012 has been issued by the State Environmental Investment Agency of Ukraine.

Written project approval #J294-0485 by Switzerland Designated Focal Point - Federal Department of the Environment, Transport, Energy and Communications of Switzerland dated 24/08/2012.

The abovementioned written approvals are unconditional.

The identified areas of concern as to the Project approval by Parties involved, project participants responses and Bureau Veritas Certification's



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conclusions are described in Appendix A to this report (refer to CAR 01, CAR 02).

3.3 Project implementation (92-93)

The main purpose of the Joint Implementation Project (hereinafter - JIP) implementation «Power distribution system modernization of PJSC «AES Rivneoblenergo» is the implementation of the program on the technical improvement of electrical networks and equipment, advanced technologies implementation, the transition to a higher level of organization, transmission and distribution of electric energy.

Implementation of the measures under the Project allows for improvement of the reliability and efficiency of distribution electrical grids of Public joint stock company «AES Rivneoblenergo» and this helps reduce the amount of electricity that is lost during transportation thereof to the consumers of all forms of ownership, so the production of electricity at thermal power plants decreases and correspondingly GHG emissions are reduced.

Implementation of project activities started in 2003, as provided for in the determined PDD, version 2.0. However, ERUs generated in 2003 are excluded from the calculation from a conservative standpoint. Therefore, 01/01/2004 was taken as the crediting period start date.

Project implementation status in the reporting period of 01/01/2008 – 30/06/2012, including the project milestones is provided in Table 1.

Table 1. Project implementation status

No	Name of activities	Units	2008	2009	2010	2011	2012 (6 mnths)
1	Repairs of PL-0.4-10 kV	km	606.743	445.4	427.3	1988.07	478.5
2	Power transformers 6-10 kV overhauls	pcs	140	208	322	444	261
3	Repairs of PL-35-110 kV	km	266.64	201.7	221.4	174.74	133.2
4	Replacement of wires at PL-0.4-10 kV	km	204.078	152.69	174.677	192.46	98.1
5	Installation of isolated cables at PL-0.4-10 kV	km	2.2842	9.7	24.3	112.801	50.45
6	Replacement of meters with high accuracy meters and its installation in front of buildings	pcs	25389	34155	33971	35648	29272
7	Reconstruction and modernization of wrecked PL-0.4-10 kV	km	131.244	100.6	107.28	134.98	72.13
8	Replacement of worn-	pcs	20	25	31	38.00	16



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	out oil switches with vacuum ones						
9	Power transformers 35-110 kV overhauls	pcs	134	56	142	204	113
10	Replacement of insulators at PL-35-110 kV	pcs	1510	519	1367	1263	713
11	Introduction of ASKOE	pcs	0	3	0	0	1
12	Installation of RZ PA devices	pcs	60	32	3	22	9
13	Replacement of signal lamps with LED ones	pcs	60	75	93	114	79

Implementation of project measures is carried out according to the project plan.

The identified areas of concern as to the project implementation, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 03, CL 01).

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

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

For calculating the emission reductions, key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

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

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

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

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

3.5 Revision of monitoring plan (99-100)



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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. These procedures are mentioned in the section "References" of this report.

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

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

The data collection and management system for the project is in accordance with the monitoring plan.

The identified areas of concern as to the data management, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CARs 05 - 08).

3.7 Verification regarding programmes of activities (102-110)

Not applicable

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the initial and 1st periodic verification of the Power distribution system modernization of PJSC «AES RIVNEOBLENERGO» Carbon Management Company GmbH Rivne 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 Carbon Management Company GmbH is responsible for the preparation of the GHG emissions data and the reported GHG



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emissions reductions of the project on the basis set out within the project Monitoring Plan indicated in the final PDD version 2.0 dated 20/06/2012. 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 2.0 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 30/06/2012

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

Baseline emissions	: 177 077	tonnes of CO ₂ equivalent.
Project emissions	: 0	tonnes of CO ₂ equivalent.
Emission Reductions	: 177 077	tonnes of CO ₂ equivalent.

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

Baseline emissions	: 158 345	tonnes of CO ₂ equivalent.
Project emissions	: 0	tonnes of CO ₂ equivalent.
Emission Reductions	: 158 345	tonnes of CO ₂ equivalent.

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

Baseline emissions	: 156 240	tonnes of CO ₂ equivalent.
Project emissions	: 0	tonnes of CO ₂ equivalent.
Emission Reductions	: 156 240	tonnes of CO ₂ equivalent.

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

Baseline emissions	: 216 290	tonnes of CO ₂ equivalent.
Project emissions	: 0	tonnes of CO ₂ equivalent.
Emission Reductions	: 216 290	tonnes of CO ₂ equivalent.

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

Baseline emissions	: 246 069	tonnes of CO ₂ equivalent.
Project emissions	: 0	tonnes of CO ₂ equivalent.



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Emission Reductions : 246 069 tonnes of CO₂ equivalent.

Total for the monitoring period

Baseline emissions : 954 021 tonnes of CO₂ equivalent.

Project emissions : 0 tonnes of CO₂ equivalent.

Emission Reductions : 954 021 tonnes of CO₂ equivalent.



5 REFERENCES

Category 1 Documents:

Documents provided by Carbon Management Company GMBH that relate directly to the GHG components of the project.

- /1/ Project Design Document Power distribution system modernization of PJSC «AES RIVNEOBLENERGO» version 2.0 dated 20/06/2012
- /2/ Monitoring report for JI project Power distribution system modernization of PJSC «AES RIVNEOBLENERGO» version 1.0 dated 19/08/2012
- /3/ ERUs calculation excel file «20120405_ROE_MR001.xls»
- /4/ Monitoring report for JI project Power distribution system modernization of PJSC «AES RIVNEOBLENERGO» version 2.0 dated 28/09/2012
- /5/ ERUs calculation excel file «20120726_ROE_MR001 v02.xls»
- /6/ Letter of Approval №2757/23/7 dated 26/09/2012 issued by State Agency of ecological investments of Ukraine
- /7/ Letter of Approval J294-0485 dated 24/08/2012 issued by the Designated Focal Point of Switzerland

Category 2 Documents:

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

- /1/ License Series АГ # 500341 on power transfer to PJSC “AES Rivneoblenergo” local power grids, issued by Ukrainian Electricity Supervision Authority (decision on issuance # 730 dated 28/04/2011)
- /2/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2002
- /3/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2003
- /4/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2004
- /5/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2005
- /6/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2006
- /7/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2007
- /8/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2008
- /9/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2009
- /10/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2010
- /11/ Structure of power balance and TPL for transfer within “AES Rivneoblenergo” PJSC 154-0,38 kV power grid for 2011



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- /12/ Power commercial accounting balance sheet dated 01/12/2012 (devices calibration schedule)
- /13/ Order # 434 dated 11/06/2012 on storage of documents concerning JI project within Kyoto Protocol
- /14/ Agreement # 350-1 dated 29/03/2012 with Rivne Scientific and Production Centre for Standardization, Metrology and Certification on providing services of technical testing and analysis
- /15/ Agreement # 41-00329/12 dated 28/02/2012 with All-Ukrainian State Scientific and Production Centre for Standardization, Metrology and Certification (Ukrmetrteststandart SE) on providing services of measuring equipment calibration
- /16/ Agreement # 324/33 П dated 21/04/2011 with Lviv State Scientific and Production Centre for Standardization, Metrology and Certification State Enterprise (Lvivstandartmetrolohiia SE) on providing services of measuring equipment calibration
- /17/ Schedule of intersystem accounting between "AES Rivneoblenergo" PJSC and Ternopiloblenergo PJSC for 2012
- /18/ Schedule of intersystem accounting between "AES Rivneoblenergo" PJSC and Lvivoblenergo PJSC for 2012
- /19/ Schedule of intersystem accounting between "AES Rivneoblenergo" PJSC and Khmelnytskoblenergo PJSC for 2012
- /20/ Schedule of intersystem accounting between "AES Rivneoblenergo" PJSC and Volynoblenergo PJSC for 2012
- /21/ Certificate C8.119-2010 dated 17/06/2010 on state metrological attestation of automatic system for commercial accounting of power consumption
- /22/ List of technical characteristics of commercial power accounting units
- /23/ Passport on power meter type EA02RAL-C-4, # 01047058 (metrological attestation dated 28/05/2010)
- /24/ Calibration certificate # 9A/437 dated 25/05/2010 on power meter type EA02RAL-C-4, # 01047058
- /25/ Passport on current transducer type T-0,66, # 31556
- /26/ Calibration certificate # 9A/440 dated 25/05/2010 on current transducer type T-0,66-1-Y3, # 13735
- /27/ Passport-protocol on Mochulky 10/0,4 kV КТП-797 ПЛ-0,4 kV measuring unit
- /28/ Passport on power meter type EA02RAL-C-4, # 01065395 (metrological attestation dated 28/05/2010)
- /29/ Calibration certificate # 9A/437 dated 25/05/2010 on power meter type EA02RAL-C-4, # 01065395
- /30/ Passport-protocol on Mochulky 10/0,4 kV КТП-262 ПЛ-0,4 kV measuring unit
- /31/ Passport on power meter type EA02RAL-C-4, # 01065893 (metrological attestation dated 26/05/2010)
- /32/ Calibration certificate # 9A/429 dated 28/05/2010 on power meter type EA02RAL-C-4, # 01065893
- /33/ Passport-protocol on Derazhne 35/10 kV Hremiache ПЛ-10 kV measuring unit



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- /34/ Passport on power meter type EA02RAL-C-4, # 01047020 (metrological attestation dated 26/05/2010)
- /35/ Calibration certificate # 9A/433 dated 28/05/2010 on power meter type EA02RAL-C-4, # 01047020
- /36/ Passport-protocol on Derazhne 35/10 kV Tsuman ПЛ-10 kV measuring unit
- /37/ Passport on power meter type EA02RAL-C-4, # 01042834 (metrological attestation dated 26/05/2010)
- /38/ Calibration certificate # 9A/434 dated 28/05/2010 on power meter type EA02RAL-C-4, # 01042834
- /39/ Passport-protocol on Ostrozhets 35/10 kV Lutsk ПЛ-10 kV measuring unit
- /40/ Passport on power meter type EA02RAL-C-4, # 01065391 (metrological attestation dated 2nd quarter 2012)
- /41/ Passport on power meter type EA02RAL-C-4, # 01065387 (metrological attestation dated 2nd quarter 2012)
- /42/ Passport-protocol on Kutyn 110/10 kV Liubeshiv ПЛ-110 kV measuring unit
- /43/ Passport on power meter type EA02RAL-C-4, # 01047059 (metrological attestation dated 26/05/2010)
- /44/ Calibration certificate # 9A/434 dated 28/05/2010 on power meter type EA02RAL-C-4, # 01047059
- /45/ Passport-protocol on Netishyn 110/10 kV Kraiiv ПЛ-110 kV measuring unit
- /46/ Passport on power meter type EA02RAL-C-4, # 01047014 (metrological attestation dated 2nd quarter 2010)
- /47/ Passport-protocol on Ostroh 110/10 kV Miakoty ПЛ-110 kV measuring unit
- /48/ Passport on power meter type EA02RAL-C-4, # 01047023 (metrological attestation dated 2nd quarter 2010)
- /49/ Passport-protocol on Kutynka 35/10 kV Pererosle ПЛ-35 kV measuring unit
- /50/ Passport on power meter type EA02RAL-C-4, # 01047053 (metrological attestation dated 2nd quarter 2010)
- /51/ Passport-protocol on Myliatyn 35/10 kV Holovli ПЛ-35 kV measuring unit
- /52/ Passport on power meter type EA02RAL-C-4, # 01042838 (metrological attestation dated 2nd quarter 2010)
- /53/ Passport-protocol on Korets 35/10 kV Murakhiv ПЛ-35 kV measuring unit
- /54/ Passport on power meter type EA02RAL-C-4, # 01037505 (metrological attestation dated 2nd quarter 2007)
- /55/ Passport-protocol on Krupets 35/10 kV Biliavtsi ПЛ-35 kV measuring unit
- /56/ Passport on power meter type EA02RAL-C-4, # 01047061 (metrological attestation dated 2nd quarter 2010)
- /57/ Passport-protocol on Zelenyi Dub 10/0,4 kV ТП-191 ПЛ-0,4 kV measuring unit
- /58/ The list of measuring equipment which is in operation and to be



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- calibrated in 2012
- /59/ The list of measuring equipment which is in operation and to be calibrated in 2011
 - /60/ Statement on flow amount between Lvivska Zaliznytsia STFO and "AES Rivneoblenergo" PJSC for 01-31 December 2011
 - /61/ Investment programme of "AES Rivneoblenergo" OJSC for the period 2003-2007
 - /62/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for the period from 01/12/2001 to 31/12/2002
 - /63/ Investment programme of "AES Rivneoblenergo" OJSC for the period 2003
 - /64/ Investment programme of "AES Rivneoblenergo" OJSC for the period 2004
 - /65/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2004
 - /66/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2005
 - /67/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2005 (covering the period till 2009)
 - /68/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2005 (covering the period for 2009)
 - /69/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2006 (covering the period till 2010)
 - /70/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2007 (covering the period till 2011)
 - /71/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2008 (covering the period for 2012)
 - /72/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2008 (covering the period till 2012)
 - /73/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2008
 - /74/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2009
 - /75/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2010 (covering the period till 2014)
 - /76/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2010
 - /77/ Report on implementation of "AES Rivneoblenergo" OJSC investment development programme for 2011
 - /78/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2011 (covering the period till 2015)
 - /79/ Investment plan of "AES Rivneoblenergo" OJSC for the period 2012 (covering the period till 2016)
 - /80/ Development programme of 35-110 kV power grids and decision on 0,4-(6)10 kV power grids rehabilitation for 2007-2011, "AES Rivneoblenergo" OJSC



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- /81/ Photo-reconstructed packaged transformer substation КТП-583, fabrication # 1717
- /82/ Photo-new power meter # 2732968 installed on the building face as per activity "Replacement of power meter by high level of accuracy and installation on the building face"
- /83/ Form # 1-wastes (annual). Wastes handling for 2011
- /84/ Form # 1-wastes (annual). Wastes handling for 2010
- /85/ Form # 1-wastes (annual). Wastes handling for 2009
- /86/ Form # 1-wastes (annual). Wastes handling for 2008
- /87/ Form # 1-wastes (annual). Wastes handling for 2007
- /88/ Form # 1-wastes (annual). Wastes handling for 2006
- /89/ Inventory report on pollutants emission, "AES Rivneoblenergo" OJSC, production sites 1-28 (issued in 2008)
- /90/ Declaration on the beginning of construction works dated 04/08/2011. Reconstruction КЛ-10kV from ТП-279 to ЗТП-311 in Rivne city, code ДК 2224.1, level of difficulty - II
- /91/ Expert opinion on safety and conformity of the project design to regulations "647.11.56-40.10.5 dated 16/08/2011 on working project "Reconstruction КЛ-10kV from Volodymyrets ПС 35/10kV to ТП-449 (Volodymyrets district)"
- /92/ Declaration on the beginning of construction works dated 04/08/2011. Reconstruction КЛ-10kV in Volodymyrets from ПСТ 35/10kV unit # 27 to ТП-449 (Shevchenko, Chornovola, Hrushevskoho streets, Haharina lane)" Rivne region, code ДК 2224.1, level of difficulty - I
- /93/ Construction cost balance of "Reconstruction КЛ-10kV КЛ-10kV to Volodymyrets substation ТП-449 in Volodymyrets town
- /94/ Training schedule for engineer and technical personnel for 2012
- /95/ Training schedule for personnel for 2012
- /96/ Vocational education schedule for personnel of other qualifications and work in state educational bodies for 2012
- /97/ Training schedule for engineer and technical personnel for 2011
- /98/ Training schedule for personnel for 2011
- /99/ Prospective plan of specialists and top management training, "AES Rivneoblenergo" CJSC for 2011-2015
- /100/ Prospective plan of personnel training, "AES Rivneoblenergo" CJSC for 2011-2015
- /101/ Protocol # 45 dated 25/05/2012 on qualification exam passing for personnel conducting works from lift platform
- /102/ Protocol # 39 dated 11/05/2012 on qualification exam passing for personnel responsible for safe lift platform operation
- /103/ Protocol # 13 dated 06/05/2012 on commission session on conducting credits for students of PM-041, PM-042 groups, issued by the National Technical University of Ukraine "Kyiv Polytechnic Institute", Centre of Managers and Specialists Training, Ministry of Energy and Coal Industry of Ukraine
- /104/ Order # 453 dated 16/11/2011 on distribution network operation fitter training
- /105/ Training plan on distribution network operation fitter vocational



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- education for the period 21/11/2011-29/12/2011
- /106, License Series AB # 586188 on providing educational services on vocational training complying with retraining and vocational training requirements
 - /107, Technical instruction AAHC.466452.322 on automatic system for commercial accounting of power consumption AAHC.466452.322 T3 modernization
 - /108, Letter # 03/42-1144 dated 25/05/2010 on agreement of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Enerhorynok State Enterprise
 - /109, Agreement dated 19/06/2009 of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Ukrenerho State Enterprise
 - /110, Agreement dated 30/09/2009 of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Lvivolenerho OJSC
 - /111, Agreement dated 01/06/2009 of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Volynoblenerho OJSC
 - /112, Agreement dated 16/06/2009 of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Zhytomyroblenergo OJSC
 - /113, Agreement of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Khmelnytskoblenerho OJSC
 - /114, Agreement dated 10/11/2009 of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Enerhoatom State Enterprise
 - /115, Agreement of technical instruction and proposal on automatic system for commercial accounting of power consumption construction issued by Ternopilolenerho OJSC
 - /116, Statement #1 dated 25.08.2010 made as a result of the commission for the introduction of ASCAPC by CJSC " AES Rivneoblenergo" within the Wholesale Energy Market of Ukraine (WPM) in commercial operation
 - /117, Certificate # C8.119-2010 dated 17/06/2010 on state metrological attestation automatic system for commercial accounting of power consumption of "AES Rivneoblenergo" CJSC
 - /118, Certificate on introduction of the amendments to the Register of Automatic System for Commercial Accounting of Power Consumption "AES Rivneoblenergo" CJSC ASCAPC, valid from 11/01/2011 to 30/06/2011
 - /119, Statement test the readiness ASCAPC to the formation of data for calculation dated 05/06/2011
 - /120, Agreement on transfer of non-exclusive rights to use the software ASCAPC (license agreement) dated 02/12/2005
 - /121, Photo– generator of report - ASCAPC
 - /122, Certificate #588611 AA from the USREOU (Unified State Register



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of Enterprises and Organizations of Ukraine)
/123/ Certificate on introduction of the amendments to the Register of Automatic System for Commercial Accounting of Power Consumption "AES Rivneoblenergo" CJSC ASCAPC, valid from 01/07/2011 to 30/06/2014

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/	Ivan Vasyliiev	Thermal technical engineer PJSC "AES Rivneoblenergo"
/2/	Oleksandr Kovtianiuk	PJSC "AES Rivneoblenergo" Production and Technical Service engineer
/3/	Oleksii Myroniuk	Head of PJSC "AES Rivneoblenergo" Capital Construction Department
/4/	Yurii Chechel	Head of PJSC "AES Rivneoblenergo" Power Balance Analysis Department
/5/	Pavlo Chupryna	Head of PJSC "AES Rivneoblenergo" Power Meters Operation and Metrology Department
/6/	Volodymyr Mariuk	Head of PJSC "AES Rivneoblenergo" Training Department
/7/	Denys Rzhanov	Carbon Management Company GmbH Technical Director



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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?	<p><u>Corrective Action Request (CAR) 01.</u> Please provide the Letter of Approval issued by the DFPs and specify its numbers and dates in the MR.</p> <p><u>Corrective Action Request (CAR) 02</u> Please specify ITL of the project in the MR.</p>	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	See CAR 01 above	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?	<p>Project is implemented in accordance with the PDD, determination of which is deemed to be final</p> <p><u>Clarification Request (CL) 01</u> Please provide information about the status of the project, broken down by year</p>	OK	OK
93	What is the status of operation of the project during the monitoring period?	<p><u>Corrective Action Request (CAR) 03</u> Please correct the length of the monitoring period</p>	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?	Yes, the monitoring occurs in accordance with the monitoring plan included in the PDD.	OK	OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) above, influencing the baseline emissions or net	Yes, all relevant key factors were taken into account, as appropriate.	OK	OK



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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	Data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent	OK	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Corrective Action Request (CAR) 04 For parameter GEF_y please indicate source of date	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?	Yes, the calculation of emission reductions based on conservative assumptions and the most plausible 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 – Not applicable				
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?	Yes, the implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures.	OK	OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, in order?	Corrective Action Request (CAR) 05 Please provide passport and calibration certificate that is the evidence of measuring accuracy in monitoring period for electric power meters. Corrective Action Request (CAR) 06	OK	OK


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DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Please specify the calibration interval for electric power meters. Corrective Action Request (CAR) 07 Please provide procedures in the event of emergencies and procedures to identify and eliminate fails at JSC "NPP Rivneoblenergo." Corrective Action Request (CAR) 08 Please check the numeration of all tables in the Monitoring Report		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records used for the monitoring maintained are in a traceable manner	OK	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The data collection and management system for the project is in accordance with the monitoring plan	OK	OK
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
Corrective Action Request (CAR) 01. Please provide the Letter of Approval issued by the DFPs and specify its numbers and dates in the MR.	90	Letters of Approval issued by the DFP were provided.	Issue is closed



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<u>Corrective Action Request (CAR) 02</u> Please specify ITL of the project in the MR.	90	Corresponding information was added to the MR. See MR version 2.0	Issue is closed
<u>Clarification Request (CL) 01</u> Please provide information about the status of the project, broken down by year	92	Table added in MR. See MR version 2.0	Issue is closed
<u>Corrective Action Request (CAR) 03</u> Please correct the length of the monitoring period	93	Length of crediting period was corrected. See MR version 2.0	Issue is closed
<u>Corrective Action Request (CAR) 04</u> For parameter GEF_y please indicate source of date	95 (c)	Source of data is corrected See MR version 2.0	Issue is closed
<u>Corrective Action Request (CAR) 05</u> Please provide passport and calibration certificate that is the evidence of measuring accuracy in monitoring period for electric power meters	101 (b)	Passports for electric power meters and passport-protocols measuring complexes provided verifiers. See supporting file passport.zip	Issue is closed
<u>Corrective Action Request (CAR) 06</u> Please specify the calibration interval for electric power meters.	101 (b)	In the table "Measuring equipment involved in the monitoring project," added column with information about the calibration interval for electric power meters. See MR version 2.0	Issue is closed
<u>Corrective Action Request (CAR) 07</u> Please provide the documental evidences of personnel training for every year of the monitoring period.	101 (b)	Corresponding information was added to the MR. See MR version 2.0	Issue is closed
<u>Corrective Action Request (CAR) 08</u> Please check the numeration of all tables in the Monitoring Report	101 (b)	Corrected. See MR version 2.0	Issue is closed