VERIFICATION REPORT VEMA S.A.

VERIFICATION OF THE

MODERNIZATION OF ELECTRIC POWER DISTRIBUTION SYSTEM AT OJSC "ODESAOBLENERGO"

THE SECOND PERIODIC
FOR THE PERIOD 01/01/2011 – 31/12/2011

REPORT NO. UKRAINE-VER/0483/2012
REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Date of first issue: 17/04/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: VEMA S.A.	Client ref.: Fabian Knodel

Summary:

Bureau Veritas Certification has made the second periodic verification of the "Modernization of electric power distribution system at OJSC "Odesaoblenergo", project of VEMA S.A., located in Odesa city and Odesa region, Ukraine and applying JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria (but for the crediting period) refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (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 emission reductions totalize 789 870 tonnes of CO_2 equivalent for the monitoring period from 01/01/2011 to 31/12/2011.
Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: UKRAINE-ver/0483/2012	Subject Group: JI	
Project title: "Modernization of electric power distribution system at OJSC "Odesaoblenergo"		
Work carried out by: Oleh Skoblyk - Team Leader, Lead Verifier Serhii Verteletskiy - Team member, Verifier Trainee Daniil Ukhanov - Technical Specialist		
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Viacheslav Yeromin – Technical Specialist		
Work approved by: Ivan Sokolov – Climate Change Operational Manager		
Date of this revision: 17/04/2012	Rev. No.: 01	Number of pages: 39

Bureau Veritas Certification Holding SAS

☒ No distribution without permission from the Client or responsible organizational unit

☐ Limited distribution

☐ Unrestricted distribution

Table of Contents *Page*

1 INTRODUCTION

VEMA S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Modernization of electric power distribution system at OJSC «Odesaoblenergo» (hereafter called "the project") located in Odesa city and Odesa 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, as well as the host country criteria.

The verification covers the period from January 1, 2011 to December 31, 2011.

1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity (AIE) 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:
Oleh Skoblyk
Bureau Veritas Certification Team Leader, Lead Verifier
Serhii Verteletskiy
Bureau Veritas Certification Team Member, Verifier Trainee

Daniil Ukhanov
Bureau Veritas Certification Technical Specialist

This verification report was reviewed by:
Ivan Sokolov
Bureau Veritas Certification Internal Technical Reviewer

Viacheslav Yeromin
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 VEMA S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Determination Report of this project issued by Bureau Veritas Certification Holding SAS, No. UKRAINE-det/0270/2011 dated01/07/2011, 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 for the period from 01/01/2011 to 31/12/2011 version 01 dated

January 26, 2012 and version 02 dated April 04, 2012 and the project as described in the determined PDD.

2.2 Follow-up Interviews

On 28/02/2012 Bureau Veritas Certification verification team conducted a visit to the project site and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of VEMA S.A. and OJSC «Odesaoblenergo» were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
OJSC «Odesaoblenergo»	➢ Organizational structure ➢ Responsibilities and authorities ➢ Personnel training ➢ Quality control procedures and technology ➢ Equipment use (records) ➢ Metering equipment control ➢ Metering record keeping system, database
Consultant: VEMA S.A.	➢ Baseline methodology ➢ Monitoring plan ➢ Monitoring report ➢ Deviations from the PDD

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 12 Corrective Action Requests and 3 Clarification Requests.

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

3.1. Remaining issues and FARs from previous verifications

There aren't any remaining CLs, CARs and FARs from previous verifications.

3.2 Project approval by Parties involved (90-91)

The project obtained approval from the Host party (Ukraine) - Letter of Approval No. 2484/23/7, dated 12/09/2011 issued by the State Environmental Investment Agency of Ukraine and written project approval from the party – buyer of emission reductions units (Switzerland) - Letter of Approval No. J294-0485 dated 28/06/2011 issued by the Federal Office for the Environment (FOEN) of Switzerland.
The abovementioned written approvals are unconditional.

The identified areas of concern as to the project approval by Parties involved, project participants response and BVC's conclusion are described in Appendix A to this report (refer to CAR 01).

3.3 Project implementation (92-93)

The project which is implemented at the Open Joint Stock Company «Odesaoblenergo» (hereinafter - OJSC «Odesaoblenergo»), provides for the implementation of the program on the technical improvement of electrical grids and equipment, advanced technologies implementation, the transition to a higher level of organization of transmission and distribution of electric energy. These activities are aimed at improvement of the reliability and efficiency of power distribution grids of OJSC «Odesaoblenergo». This, in turn, helps to reduce the amount of electricity that is lost during its transportation to the consumers of all forms of ownership, so the production of electricity at power plants decreases and thus GHG emissions into the atmosphere will decrease in comparison with the situation that would exist without the project implementation.

The project scenario provides for implementation of new energy efficient equipment and a set of organizational and technical measures aimed at reduction of process losses of electricity (hereinafter – PLE) in the course of electricity transmission. The project also provides for implementation of measures on development and improvement of methodological support of PLE reduction in the course of carrying out of licensed types of activity of electricity supply and transmission. These measures include modernization work and renewal work at the electricity grids as well as implementation of new energy efficient equipment; improvement of the reliability of electricity supply; introduction of automated system of electricity consumption commercial accounting (ASECCA) within the framework of the power supply company, ASECCA of consumers and sub-plants; implementation of a comprehensive Program of PLE reduction.

Implementation of project activities started in 2003, as specified in the determined PDD, version 02. However, emission reductions generated in 2003 were conservatively excluded from the calculation. Therefore, 01/01/2004 was taken as a starting date of the crediting period.
Project implementation status in the reporting period of 01/01/2011 – 31/12/2011 is provided in the Table 2 below.

Table 2 Status of project implementation during the monitoring period

No.	Measures	Number of units of work done in the period of 01/01/2011 – 31/12/2011					
		0.38kV	6kV	10kV	35kV	110kV	154kV
1	Implementation of new or reconstruction of existing wires of cable electricity transmission lines, km	18.095	11.31	35.785	-	-	-

2	Replacement of insulators of electricity transmission lines, units	11837	-	3380	5667	5807	-
3	Replacement of signal lamps with light emitting diodes, units	-	-	-	86	530	-
4	Implementation of reactive power compensation devices, kV	8423	950	5990	2580	-	-
5	Replacement of electricity meters, units	121146	227	474	82	18	4
6	Replacement of circuit breakers, units	-	51	-	7	11	-
7	Implementation of new or reconstruction of existing double-winding transformers, units	-	3	20	9	31	-
8	Implementation of new or reconstruction of existing wires of overhead electricity transmission lines, km	89.434	-	29.56	-	-	-

Status of project activity implementation during the monitoring period complies with the determined PDD version 02.

The verification team can confirm, through the visual inspection and document review that the JI project including data collecting and storage systems have been implemented according to the PDD.

The identified areas of concern as to the project implementation, project participants response and BVC's conclusion are described in Appendix A to this report (refer to CAR 02, CAR 03).

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

The monitoring occurred in accordance with the monitoring plan described 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 electricity losses due to absence of the introduction of new or reconstruction of existing wires of electricity transmission lines; electricity losses due to absence of the replacement of defected insulators of electricity transmission lines; electricity losses due to absence of the replacement of electricity meters; electricity losses due to absence of the implementation of reactive power compensation devices at consumer's site; electricity

losses due to absence of the replacement of oil switches with vacuum and sulphur hexafluoride switches; electricity losses due to absence of the replacement or reconstruction of existing electric motors of power transformers blower cooling, etc., 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.

Data sources used for calculating emission reductions such as appropriately calibrated measuring devices (electricity meters), special institutional reporting forms 1B-TVE DAEK, official data on carbon dioxide emission factors for the Ukrainian power grid, etc., are clearly identified, reliable and transparent.

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

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

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

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants response and BVC's conclusion are described in Appendix A to this report (refer to CAR 04, CAR 05, CAR 06, CAR 07, CAR 08, CAR 09, CL 01).

3.5 Revision of monitoring plan (99-100)

Not applicable.

3.6 Data management (101)

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

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

The project monitoring is conducted according to standard operational practices established at OJSC «Odesaoblenergo» within the framework of the existing data collection, accounting and reporting system. The scheme of data collection using the automated system of electricity consumption commercial accounting (ASECCA) within the framework of the energy supply company is provided in Figure 8 of the Monitoring Report. Scheme of data collection prior to implementation of the automated system of

electricity consumption commercial accounting (ASECCA) is shown in Figure 9 of the MR. Detailed operational and management structure of the project is presented in Figure 1 below.

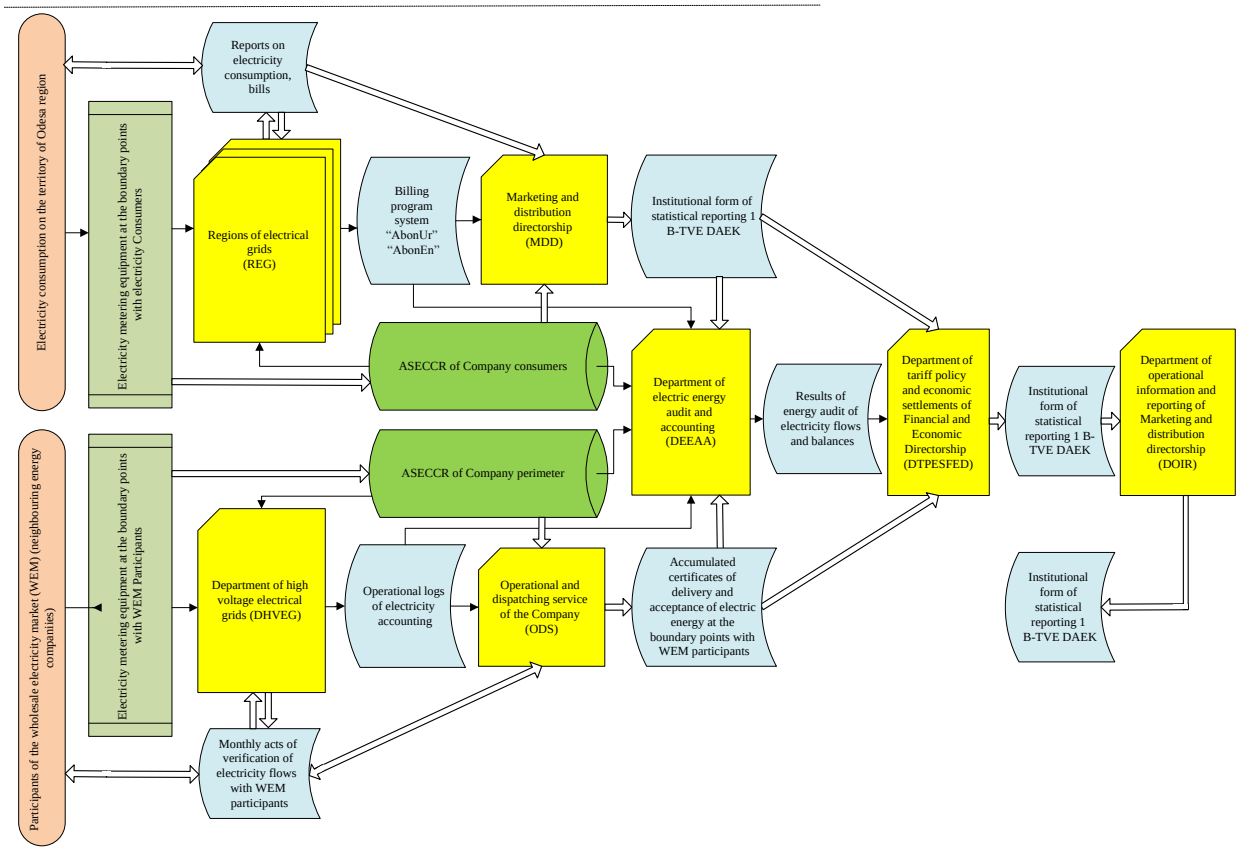

Figure 1 Scheme of project management operational structure

The functioning of the monitoring equipment, including its calibration status, is in order. The measurement equipment used for project monitoring is serviced, calibrated and maintained in accordance with the original manufacturer's instructions and industry standards; relevant records on measuring devices are kept as required. Staff of OJSC «Odesaoblenergo» regularly participate in scheduled inspections of electricity meters within the boundary of calculation accounting points joint with energy generating companies. List of measuring instruments used in the monitoring, is provided in Annex No. 3 to the Monitoring Report (Excel file).

The evidence and records used for the monitoring are maintained in a traceable manner. All necessary information for monitoring of GHGs emission reductions are stored in paper or/and electronic formats.

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

The Monitoring Report provides sufficient information on the assigned roles, responsibilities and authorities for implementation and maintenance of monitoring procedures including control of data. The verification team confirms effectiveness of the existing management and operational systems and finds them eligible for reliable project monitoring.

The identified areas of concern as to the data management, project participants response and BVC's conclusion are described in Appendix A to this report (refer to CAR 10, CAR 11, CAR 12, CL 02, CL 03).

3.7 Verification regarding programmes of activities (102-110)

Not applicable.

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the second periodic verification for the period from January 1, 2011 to December 31, 2011 of the "Modernization of electric power distribution system at OJSC "Odesaoblenergo" project, 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 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 management of VEMA S.A. 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 Plan indicated in the final PDD version 02. The development and maintenance of records and reporting procedures are 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 02, for the reporting period from 01/01/2011 to 31/12/2011 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 01/01/2011-31/12/2011

Baseline emissions	: 1 177 881	tonnes of CO_2 equivalent.
Project emissions	: 388 011	tonnes of CO_2 equivalent.
Emission Reductions	: 789 870	tonnes of CO_2 equivalent.

5 REFERENCES

Category 1 Documents:
Documents provided by the project participants that relate directly to the GHG components of the project.

/1/	Project Design Document of the JI project "Modernization of electric power distribution system at OJSC «Odesaoblenergo», version 02, dated June 30, 2011
/2/	Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC «Odesaoblenergo» for the period from 01/01/2011 to 31/12/2011 version 01 dated January 26, 2012
/3/	Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC «Odesaoblenergo» for the period from 01/01/2011 to 31/12/2011, version 02, dated April 04, 2012
/4/	Annex 1 to the Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2011 to 31/12/2011 "Implementation of new and reconstruction of existing elements of the electrical grid at substations"
/5/	Annex 2 to the Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2011 to 31/12/2011 "Quantity of installed electrical equipment units"
/6/	Annex 3 to the Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2011 to 31/12/2011 "List of metering devices"
/7/	Annex 4 to the Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2011 to 31/12/2011 "Calculation of GHG emission reductions"
/8/	Package of accompanying documents No. 1 to the Monitoring Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2011 to 31/12/2011
/9/	Determination Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo", No. UKRAINE-det/0270/2011 dated July 1, 2011 issued by Bureau Veritas Certification Holding SAS
/10/	Verification Report of the JI project "Modernization of electric power distribution system at OJSC "Odesaoblenergo" for the period from 01/01/2008 to 31/12/2010 No. UKRAINE-ver/0345/2011 dated September 20, 2011 issued by Bureau Veritas Certification Holding SAS
/11/	Letter of Approval #2484/23/7 dated 12/09/2011 issued by the State Environmental Investment Agency of Ukraine
/12/	Letter of Approval #J294-0485, issued by the Federal Office for the

	Environment (FOEN) of Switzerland dated 28/06/2011

Category 2 Documents:

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

/1/	"Guidance on criteria for baseline setting and monitoring", version 02, JISC
/2/	Order of the National Environmental Investment Agency of Ukraine (NEIA) No. 75 "On approval of carbon dioxide emission factors in 2011"
/3/	Departmental reporting form1B-TVE DAEK, Structure of balance of electricity and process losses of electricity in the course of electricity transmission in power grids of 154-038 kV of OJSC «Odesaoblenergo» Southern region in 2011, ths. kWh
/4/	Protocol of calibration of 3-phase electricity meters: serial number 57285622036, type TS76803 V
/5/	Protocol of calibration of 3-phase electricity meters: serial number 47054990, type Ts76803 V
/6/	Protocol of calibration of 3-phase electricity meters: serial number 47074741, type Ts76803 V
/7/	Protocol of calibration of 3-phase electricity meters: serial number 57285533212, type Ts76803 V
/8/	Protocol of calibration of 3-phase electricity meters: serial number 576285333075, type Ts76803 V
/9/	Protocol of calibration of 3-phase electricity meters: serial number 57285620422, type Ts76803 V
/10/	Protocol of calibration of 3-phase electricity meters: serial number 57285622165, type Ts76803 V
/11/	Protocol of calibration of 3-phase electricity meters: serial number 30020055, type Ts76803 V
/12/	Protocol of calibration of 3-phase electricity meters: serial number 30004494, type Ts76803 V
/13/	Protocol of calibration of 3-phase electricity meters: serial number 300148338, type TS76803 B
/14/	Protocol of calibration of 3-phase electricity meters: serial number 30037949, type Ts76803 V
/15/	Protocol of calibration of 3-phase electricity meters: serial number 47073628, type Ts76803 V
/16/	Protocol of calibration of 3-phase electricity meters: serial number48088318, type Ts76803 V
/17/	Protocol of calibration of 3-phase electricity meters: serial number 72013013, type Ts76803 V

/18/	Protocol of calibration of 3-phase electricity meters: serial number 3552194, type Ts76803 V
/19/	Protocol of calibration of 3-phase electricity meters: serial number 3481143, type Ts76803 V
/20/	Protocol of calibration of 3-phase electricity meters: serial number 71032133, type Ts76803 V
/21/	Protocol of calibration of 3-phase electricity meters: serial number 72000382, type Ts76803 V
/22/	Protocol of calibration of 3-phase electricity meters: serial number 49014361, type Ts76803 V
/23/	Protocol of calibration of 3-phase electricity meters: serial number 45100375, type Ts76803 V
/24/	Protocol of calibration of 3-phase electricity meters: serial number 40010384, type Ts76803 V
/25/	Protocol of calibration of 3-phase electricity meters: serial number 53845701070, type Ts76803 V
/26/	Protocol of calibration of 3-phase electricity meters: serial number 57265535898, type Ts76803 V
/27/	Protocol of calibration of 3-phase electricity meters: serial number 45068301, type Ts76803 V
/28/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 153859 type SA4-195
/29/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 045274 type SA4-195
/30/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 081623 type SA4-195
/31/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 088112 type SA4-195
/32/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 116889 type SA4-195
/33/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 641527 type SA4-11678
/34/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 442526 type SA4-11678
/35/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 785575 type SA4-11678
/36/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number543376 type SA4-11678
/37/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 002485 type SA4-199

/38/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 471113 type SA4-11678
/39/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 730120 type SA4-11678
/40/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 640553 type SA4-11678
/41/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 443768 type SA4-11678
/42/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 726991 type SA4-11678
/43/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 964658 type SA4-11678
/44/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 000225 type SA4-199
/45/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 791490 type SA4-11678
/46/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 641545 type SA4-11678
/47/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 494068 type SA4-11678
/48/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 415195 type SA4-11678
/49/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 422755 type SA4-11678
/50/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 247216 type SA4-11678
/51/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 012144 type SA4-199
/52/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 013392 type SA4-195
/53/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number015484 type SA4-195
/54/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 122660 type SA4-195
/55/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 123424 type SA4-195
/56/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number111000 type SA4-195
/57/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 226334 type SA4U-116724

/58/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 838574 typeSA4U-116724
/59/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 128244 type SA4U-116724
/60/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 446933 type SA4U-116724
/61/	Logbook for calibration protocols of 3-phase inductive electricity meters: serial number 638822 type SA4U-116724
/62/	Technical passport of the high-voltage calculation and measuring complex dated October 20, 2011 (technical testing: PS Arkadiia, details of connection: cell. 24 KRUK A.K. k.2)
/63/	Technical passport of the high-voltage calculation and measuring complex dated October 20, 2011 (certification, technical testing: PS Arkadiia – new ZRU-10kV, details of connection: cell. 8 RP Arkadiiskyi k.2)
/64/	Technical passport of the high-voltage calculation and measuring complex dated October 20, 2011 (certification, technical testing: PS Arkadiia – new ZRU-10kV, details of connection: cell. 6 TP 6039)
/65/	Technical passport of the high-voltage calculation and measuring complex dated April 2, 2011 (certification, technical testing: TP-1215, RU-10kV, details of connection: Input 10 kV)
/66/	Technical passport of the high-voltage calculation and measuring complex dated April 3, 2011 (technical testing: PS Sakhzavod 35/10 kV, details of connection: cell. 14. Railway)
/67/	Technical passport of the high-voltage calculation and measuring complex dated April 4, 2011 (technical testing: RP Komarova, RU-10 kV, details of connection: 10TsRP ATP)
/68/	Technical passport of the high-voltage calculation and measuring complex dated March 27, 2011 (certification, technical testing: RP 1, RU-6kV, details of connection: cell. 6 Chudo city)
/69/	Technical passport of the high-voltage calculation and measuring complex dated September 30, 2011 (certification, technical testing: RP 8, ZRU-10kV, details of connection: Input No. 2 cab. K. TP 1099)
/70/	Technical passport of the high-voltage calculation and measuring complex dated November 28, 2011 (certification, technical testing: PS MIZ, ZRU-10kV, details of connection: cell. 24 V-10 Tavriia)
/71/	Technical passport of the high-voltage calculation and measuring complex dated August 17, 2011 (certification, technical testing: TP-1100, RU-10kV, details of connection: Input 10kV)
/72/	Technical passport of the high-voltage calculation and measuring complex dated July 19, 2011 (certification, technical testing: PS Stepna, details of

	connection: cell.8 Tomato Factory-2)
/73/	Technical passport of the high-voltage calculation and measuring complex dated February 29, 2011 (certification, technical testing: TP-1004, RU-10kV, details of connection: Input 10 kV)
/74/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction of PL-0,4kV from TP-479 Starosillia village in Saratskyi REM) dated 13/12/2011
/75/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction of PL-6kV from TP-32 with the use of an uninsulated wire in Izmail city, Izmailskyi REM) dated 24/11/2011
/76/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction of PL-10kV pr. «Shabo» B-Dnistrovskyi REM
/77/	Certificate No. 1/8 dated 30/12/2011 on acceptance of work performed in December in period 16/12-30/12/2011 (installation of zh/b supports, assembly of z/z descents No. 4,7,10,13,16,15,22,51,54,57,62,67,76,73)
/78/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 No.740 at Lenina Str. In Nerubaiske village) dated 27/02/2012 No. 70
/79/	Certificate No. 205/01 on acceptance of work performed on 11,13,24-01/2012 (installation of PN blocks, commutation 0,4kV)
/80/	Certificate No. 211/12 on acceptance of work performed on 21,23,24,28,30-12/2011 (Assembly of tower substation, contour of grounding, protection device 10kV)
/81/	Certificate No. 211/12 on acceptance of work performed on 21,23,24,28,30-12/2011 (Installation of additional supports, charge neutralizers RVO-10, PN blocks, Assembly of disconnector, output 0,4kV TP)
/82/	Certificate No. 223/12 on acceptance of work performed on 21,26,30-12/2011 (Assembly of tower substation, contour of grounding, protection device 10kV)
/83/	Certificate No. 224/12 on acceptance of work performed on 21,26,30-12/2011 (Assembly of disconnector, support insulators 10kV, installation of charge neutralizers RVO-10, PN blocks replacement)
/84/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 No. 817 at Kirova Str. in Nerubaiske village) dated 27/02/2012 No. 70
/85/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging TP 630 kVA at Romashkova Str. of Southern RES) dated 30/11/2010 No. 471
/86/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP-121 Lisky

	village, Stepanova-Zabolotnoho Str., Kominternivskyi region) dated 27/12/2011 No. 613
/87/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (Assembly of transformer SchTP-122, Liski village, Bocharova-Zabolotnoho, Kominternivskyi REM) dated 27/12/2011No. 613
/88/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (Assembly of transformer SchTP-121 Lisky village, Stepanova-Zabolotnoho Str., Kominternivskyi region) dated 27/12/2011 No.613
/89/	Certificate No. 32 dated 21/11/2011 on acceptance of work performed on 14th,15th,16th,18th, 21st of November 2011 (installation of supports, insulators, assembly of wire A35)
/90/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 at Sadova Str. in Maiaki village, Biliaiskyi REM) dated 27/02/2012 No.70
/91/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction ZRP-10 KV PS «Taiirovo» (equipment 10 kV PS 110/10 kV “Taiirovo”) dated 10/10/2011 No. 460
/92/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of SchTP 10/0,4 kV in Lubashyvka urban village, Lubashyvskyi REM) dated 20/12/2011 No. 248
/93/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of SchTP 10/0,4 kV in Troitske village, Lubashyvskyi region, Lubashyvskyi REM) dated 20/12/2011 No. 248
/94/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (assembly of transformer at SchTP-10/0,4 kV, Strukovo village, Mykolaivskyi region, Mykolaivskyi REM) dated 30/12/2011 No. 255
/95/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP-121, Lisky village, Stepanova-Zabolotnoho Str., Komynternivskyi REM) dated 27/12/2011 No. 613
/96/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging KTP-482, Fontanka village, Pohranychna Str, Komynternivskyi REM) dated 02/12/2011 No. 563
/97/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 at Sadova Str., in Maiaky village, Biliaivskyi REM) dated 27/02/2012 No. 70
/98/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 No.

	817 at Kirova Str. in Nerubaiske village, Biliaivskyi REM) dated 27/02/2012 No. 70
/99/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 No.740 at Lenina Str. in Nerubaiske village, Biliaivskyi REM) dated 27/02/2012 No. 70
/100/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (installation of discharging TP 10/0,4 kV at Nahornaia Str. in Tatarbuniari village, Tatarbuniarskyi REM)
/101/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of SchTP 6/0,4 250 kVA No. 6120 Kotliarevskoho Str., Pivnichnyi REM) dated 14/10/2011 No. 466
/102/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging SchTP 10/0,4 kV at Maiaki Str., reconstruction of PL 10, PL 0,4 kV from TP 433 and TP 477 in Kiliia city, Kiliiskyi REM)
/103/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (installation of discharging TP 10/0,4kV at Kirova Str. in Artsiz city, Artsizskyi REM)
/104/	Protocol No. 27 on testing of power cable line of high voltage of rectified current dated 29/02/2012
/105/	Certificate No. 22 on works performed in February 2012 (laying and testing of cable)
/106/	Protocol No. 193-C on testing of power cable line of high voltage of rectified current dated 06/02/2012
/107/	Protocol No. 4 on testing of power cable line of high voltage of rectified current dated 05/02/2012
/108/	Protocol No. 24 on testing of power cable line of high voltage of rectified current dated 17/02/2012
/109/	Certificate No. 41 dated 29/11/2011 on acceptance of works performed on 14/11/2011 (Visual check of PL, replacement of supports)
/110/	Certificate No. 42 dated 29/11/2011 on acceptance of works performed on 14/11/2011 (Visual check of PL, replacement of supports)
/111/	Certificate No. 43 dated 29/11/2011 on acceptance of works performed on 16/11/2011 (Installation of shields MTP, assembly of commutation)
/112/	Certificate No. 52 on acceptance of works performed on 23/11/2011 (replacement of supports, assembly of wire, replacement of charge neutralizers, insulators)
/113/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction of PL-0,4kV TP-416 Kiliia city,

	Kiliiskyi REM) dated 29/07/2011 No. 343
/114/	Certificate No. 208/12 on acceptance of works performed on 21,23,26,27,29,30/12/2011 (installation of supports, assembly of matt substation, contour of grounding)
/115/	Certificateon commissioning of power distribution grid facilities issued by working technical commission No. 151 (construction of SchTP-10/0,4 kV at Stepanova Str. Balta city, Baltskyi REM) dated 15/12/2011
/116/	Certificate on commi sioning of power distribution grid facilities issued by working technical commission (construction of SchTP-10/0,4 kV in Osinivka village, Shyriaevskyi REM) dated 25/11/2011 No. 217
/117/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of equipment of SchTP-10/0,4 kV at Mikhailivska Str., Shyriaevo urban village, Shyriaevskyi REM) dated 25/11/2011 No. 216
/118/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of SchTP-10/0,4 kV in Savran urban village, Savranskyi REM) dated 20/12/2011 No.248
/119/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of equipment of SchTP-10/0,4 kV in Soltanivka village, Lubashivskyi region, Lubashivskyi REM) dated 05/12/2011 No. 230
/120/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of equipment of SchTP-10/0,4 kV at Budennogo Str., Lubashivka urban village, Lubashivskyi REM)
/121/	Protocol No. 10-C on testing of the power cable line of high voltage of rectified current dated 15/02/2012 (RP Komarova, PS Tairovo)
/122/	Protocol No. 9-C on testing of the power cable line of high voltage of rectified current dated 13/02/2012 (RP Proletarskyi, PS Chumka k2)
/123/	Protocol No. 21-C on testing of the power cable line of high voltage of rectified current dated 08/02/2012 (RP Universitetskyi, PS Chumka k2)
/124/	Certificate No. 131/12 on works performed dated December 26, 2011 (replacement of supports, wire, insulators, dismantling of wire, insulators)
/125/	Certificate No. 132/12 on works performed dated December 29, 2011 in period from December 11 to 29, 2011 (replacement of supports, wire, insulators, dismantling of wire, insulators)
/126/	Certificate No. 129/12 on works performed dated December 21, 2011(replacement of supports, wire, insulators, dismantling of wire, insulators)
/127/	Certificate No. 128/12 on works performed dated December 29, 2011 in period from December 1 to 29 (replacement of supports, wire, insulators, dismantling of wire, insulators)

/128/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 192 (reconstruction of PL-10 kV pr. SMA from PS 35/10kV «Shabo», B.-Dnistrovskyi REM)
/129/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (reconstruction of PL-0,4kV from TP-542, Rozdilianskyi REM) dated 31/01/12
/130/	Certificate No.1/8 on works performed dated 30/12/2011 in period 15/12-30/12/2011 (replacement of supports, wire, insulators, dismantling of wire, insulators)
/131/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging TP 10/0,4 kV at T.Shevchenka Str., reconstruction of PL 10 pr. Horod, PL 0,4 kV from TP-407, TP-441 and RP-2 in Kiliia city, Kiliiskyi REM) dated 30/01/2012
/132/	Certificate No. 4 on works performed in period November-December 2011 dated 08/12/2011 (replacement of supports, wire, insulators, dismantling of wire, insulators)
/133/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 166 (reconstruction of PL-0,4 kV FNo.3 TP-193, Ovidiopolskyi REM) dated 09/12/2011
/134/	Certificate No. 4 on acceptance of works performed dated November 23, 2011 (KR PL-0,4kV from TPNo. 193 prNo.3)
/135/	Certificate No. 56 on acceptance of works performed dated November 23, 2011 (KR PL-0,4kV from TPNo. 193 prNo.3)
/136/	Certificate on acceptance of works performed dated December 20, 2011 (KR PL-0,4kV from TPNo. 193 prNo.3)
/137/	Certificate No. 57 on acceptance of works performed dated November 23, 2011 (TO PL-0,4kV from TPNo. 193 prNo.3)
/138/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 167 (reconstruction of PD-10KV F. Molodizhnyi, Ovidiopolskyi REM) dated 09/12/2011
/139/	Certificate No. 54 on acceptance of works performed dated November 23, 2011 (TO PL-10 kV Molodizhnyi)
/140/	Certificate No. 53 on acceptance of works performed dated November 23, 2011 (KR PL-10 kV Molodizhnyi feeder)
/141/	Certificate No. 209/12 on acceptance of works performed on 21,23,26,27,29,30/12/2011 (assembly of RVO, disconnectors, protection devices, commutations 0.4kV, output 0,4 kV TP)
/142/	Certificate on commissioning of power distribution grid facilities issued by working technical commission (construction of discharging TP 10/0,4 kV at Maiaki Str., reconstruction of PL 10, PL 0,4 kV from TP 433 and TP 477 in

	Kiliia city, Kiliiskyi REM)
/143/	Certificate No. 31 on acceptance of works performed dated 28/11/2011 in period November 28, 2011 (TO PL-0,4 kV from TP No. 182)
/144/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 138 (reconstruction of equipment 10 kV PS 110/10 kV «Tairovo») dated 10/11/2011
/145/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 164 (reconstruction of PS 110/10 kV «Tairovo» 1-st stage (1-st line); 2-nd stage (1-line); reconstruction of VRP-110 kV «Tairovo», reconstruction of ZPK PS «Tairovo», reconstruction of ZPR-10kV PS «Tairovo», reconstructin of power transformer 2T TRDN-63000-110/10, reconstruction of building ZRU PS 110/10 kV «Tairovo», assembly of transformers for company's own needs and grounded reactors, construction of reactor PS 110\10 kV «Tairovo») dated 10/12/2011
/146/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 146 (reconstruction of equipment of PS 110 kV «Kirovska») dated 28/12/2011
/147/	Certificate on commissioning of power distribution grid facilities issued by working technical commission No. 187 (reconstruction of transformer PS 110/10 kV «Temp» (2-nd line), equipment PS 110 kV «Temp») dated 30/12/2011

Persons interviewed:

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

	Name	Organization	Position
/1/	Baklanov V.	OJSC «Odesaoblenergo»	Deputy commercial director
/2/	Holinko M.	OJSC «Odesaoblenergo»	Head of pofidernic analysis service
/3/	Hetmanov V.	OJSC «Odesaoblenergo»	Technical director
/4/	Yurchenko Yu.	OJSC «Odesaoblenergo»	Commercial director
/5/	Reshetniak S.	OJSC «Odesaoblenergo»	Head of Sub-stations Service
/6/	Honcharuk V.	OJSC «Odesaoblenergo»	Deputy technical director

/7/	Boiarchuk V.	OJSC «Odesaoblenergo»	Head of team of operation and technical control central service
/8/	Palamarchuk D.	“CEP” LLC	Consultant of VEMA S.A.

APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

JI 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 NFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	The project has been approved by both parties. The Letters of Approval were presented to the verification team. **CAR 01.** The name of the institution that issued the Letter of Approval from Ukraine is incorrect. Please, make necessary corrections.	**CAR 01**	OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional.	OK	OK
Project 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?	Yes, the project has been implemented in accordance with the PDD, which is listed on the UNFCCC JI website. The project scenario provides for implementation of new energy efficient equipment and a set of organizational and technical measures aimed at reduction of process losses of electricity. 65.19 km of cable line wire, 26 691 insulators,	**CAR 02** **CAR 03**	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		616 signal lamps, 121 951 electricity meters, 69 circuit breakers, 63 double-winding transformers, 118 994 km of wire of overhead electricity transmission lines were implemented or reconstructed in the period from 01/01/2011 to 31/12/2011. Detailed information is provided in Annex 2 to the MR. **CAR 02.** Please, in Section A.6 of the MR (Table 1) provide information about implementation of reactive power compensation devices. **CAR 03.** In Section A.3. of the MR, the list of activities planned under the project according to the determined PDD is not comprehensive. Please, state all activities planned under the project.		
93	What is the status of operation of the project during the monitoring period?	The Project was operational during the whole monitoring period, which is from 01/01/2011 to 31/12/2011.	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 was carried out 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. **CAR 04.** In Section A.5.1. of the MR it is stated that the dynamic baseline for this project was chosen according to a specific approach based on the requirements specified in paragraph 9 (a)	**CAR 04** **CAR 05**	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		of the Guidance on criteria for baseline setting and monitoring, version 03, while in the final determined version of the PDD the Guidance Version 02 was used. **CAR 05.** Please, in Section A.5.2. of the MR, provide a brief description of application of the methodology.		
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 calculating the emission reductions, key factors, such as electricity losses due to absence of the introduction of new or reconstruction of existing wires of electricity transmission lines; electricity losses due to absence of the replacement of defected insulators of electricity transmission lines; electricity losses due to absence of the replacement of electricity meters; electricity losses due to absence of the implementation of reactive power compensation devices at consumer's site; electricity losses due to absence of the replacement of oil switches with vacuum and sulphur hexafluoride switches; electricity losses due to absence of the replacement or reconstruction of existing electric motors of power transformers blower cooling, etc., 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.	OK	OK
95 (b)	Are data sources used for calculating	Yes, data sources used for calculating	**CAR 06**	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emission reductions or enhancements of net removals clearly identified, reliable and transparent?	emission reductions or enhancements of net removals are clearly identified, reliable and transparent. **CAR 06.** The name of CO_2 emission factor in Sections B and D of the MR is not in accordance with the NEIA Order No. 75. Please, make necessary corrections. **CAR 07.** In Table 3 of Section B.2.1., data units are not specified for all parameters. Please, provide relevant information. **CAR 08.** In Table 4 of Section B.2.2., frequency of records for parameter $R^{P}_{\phi n,y,tran(2),i}$ is not stated. Please, add necessary information to the table.	**CAR 07** **CAR 08**	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	Yes, emission factors, including default emission factors, that were used for calculating the emission reductions or enhancements of net removals, were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	Calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner. **CAR 09.** Please, in Section E.4. specify that GHG emission reductions are calculated as the difference between baseline and project emissions. **CL 01.** Please, state the estimates of GHG emission reductions in tonnes of CO_2 equivalent.	**CAR 09** **CL 01**	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?	N/a	N/a	N/a
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?	N/a	N/a	N/a
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	N/a	N/a	N/a
98	If the monitoring is based on a monitoring plan that provides for overlapping	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
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?	N/a	N/a	N/a
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	N/a	N/a	N/a
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?	**CAR 10.** Please, provide explanation regarding Figure 8 in the MR. **CL 02**. Please, provide information on collection of data from meters at sub-stations that were not equipped with ASECCA.	**CAR 10** **CL 02**	OK OK
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	Yes, the function of the monitoring equipment, including its calibration status is in order. **CAR 11.** Please, provide information on the involvement of third parties.	**CAR 11** **CAR 12**	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR 12. In Table 2 of the MR calibration interval is not stated for all equipment. Please, provide information regarding calibration interval for all equipment.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Yes, the evidence 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 monitoring plan?	The data collection and management system of the project is in accordance with the monitoring plan. The Verification team confirms the effectiveness of existing management system and operating system and considers them to be suitable for reliable monitoring of the project. **CL 03.** Please check the numbering of tables and Figures in the MR.	**CL 03**	OK
Verification regarding programs of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/a	N/a	N/a
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/a	N/a	N/a
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/a	N/a	N/a
104	Does the monitoring period not overlap with previous monitoring periods?	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/a	N/a	N/a
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI Project. 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 periods of the JPAs being verified; and	N/a	N/a	N/a

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	− 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?	N/a	N/a	N/a
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?	N/a	N/a	N/a
109	Is the sampling plan available for submission to the secretariat for the JISC.s ex ante assessment? (Optional)	N/a	N/a	N/a
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?	N/a	N/a	N/a

TABLE 2 RESOLUTION OF CLARIFICATION AND CORRECTIVE ACTION REQUESTS

Clarification and corrective action requests issued by the verification team	Ref to checklist question in Table 1	Summary of project participant's response	Verification team conclusion
CAR 01. The name of the institution that issued the Letter of Approval from Ukraine is incorrect. Please, make necessary corrections.	90	The Letter of Approval from Ukraine was issued by the State Environmental Investment Agency of Ukraine. Relevant corrections were made in Section A.2. of the MR.	The issue is closed based on necessary corrections made.
CAR 02. Please, in Section A.6 of the MR (Table 1) provide information about implementation of reactive power compensation devices.	92	Information about implementation of reactive power compensation devices was provided in Table 1 of the MR and in Annex 2.	The issue is closed based on provision of relevant information.

CAR 03. In Section A.3. of the MR, the list of activities planned under the project according to the determined PDD is not comprehensive. Please, state all activities planned under the project.	92	The list of the measures is provided below: - modernization works and implementation of new energy efficient equipment; - improvement of the reliability of electricity supply; - introduction of automated system of electricity consumption commercial accounting (ASECCA) within the framework of the power supply company, ASECCA of consumers and sub-plants; - implementation of a comprehensive Program of PLE reduction.	The issue is closed based on provision of necessary information in the MR version 02.
CAR 04. In Section A.5.1. of the MR it is stated that the dynamic baseline for this project was chosen according to a specific approach based on the requirements specified in paragraph 9 (a) of the Guidance on criteria for baseline setting and monitoring, version 03, while in the final determined version of the PDD the Guidance Version 02 was used.	94	Necessary corrections were made in the latest version of the MR.	Necessary corrections were made in the MR version 02. The issue is closed.

CAR 05. Please, in Section A.5.2. of the MR, provide a brief description of application of the methodology.	94	The proposed methodology, that is based on the JI specific approach, takes into consideration reduction of electricity losses, achieved by means of the implementation of each individual project measure. At the same time the calculation of losses in the baseline scenario is actually performed with consideration of the state of the electrical grid before implementation of such measure. Thus, the application of the developed methodology for calculating emissions in the baseline scenario actually leads to their underestimation by taking into account the effect of energy saving measures implemented earlier, which is conservative.	The issue is closed based on provision of relevant information.
CAR 06. The name of CO_2 emission factor in Sections B and D of the MR is not in accordance with the NEIA Order No. 75. Please, make necessary corrections.	95 (b)	EF – carbon dioxide emission factor related to power losses in the course of power transmission to local power grids.	The issue is closed based on necessary changes made.
CAR 07. In Table 3 of Section B.2.1., data units are not specified for all parameters. Please, provide relevant information.	95 (b)	Information regarding data units for parameters in Table 3 of Section B.2.1. is provided for all parameters.	The issue is closed based on provision of relevant information.
CAR 08. In Table 4 of Section B.2.2., frequency of records for parameter $R^{P}_{\phi n,y,tran(2),i}$ is not stated. Please, add necessary information to the table.	95 (b)	Parameter $R^{P}_{\phi n,y,tran(2),i}$ is recorded annually. Relevant information is provided in Section B.2.2.	The issue is closed based on necessary changes made.

CAR 09. Please, in Section E.4. specify that GHG emission reductions are calculated as the difference between baseline and project emissions.	95 (d)	GHG emission reductions resulting from the project implementation are calculated as the difference between baseline and project emissions. Relevant information is presented in Section E.4 of the MR version 02.	The issue is closed based on provision of necessary information.
CAR 10. Please, provide explanation regarding Figure 8 in the MR.	101 (a)	Figure 8 of the MR shows the scheme of data collection by means of the automated system of electricity consumption commercial accounting (ASECCA) within the framework of the energy supply company.	The issue is closed based on provision of necessary information.
CAR 11. Please, provide information on the involvement of third parties.	101 (a)	Odesa centre for standardization, metrology and certification was involved in calibration/verification of metering devices. Relevant information is stated in Section C.3. of the MR.	The issue is closed based on information provided in the MR version 02.
CAR 12. In Table 2 of the MR calibration interval is not stated for all equipment. Please, provide information regarding calibration interval for all equipment.	101 (b)	Refer to Table 2 of the MR and Annex 3 to the latest version of the MR.	Information was provided, the issue is closed.
CL 01. Please, state the estimates of GHG emission reductions in tonnes of CO_2 equivalent.	101 (a)	The estimates of GHG emission reductions resulting from the project activities are provided in tonnes of CO_2 equivalent	The issue is closed based on necessary corrections made.

CL 02. Please, provide information on collection of data from meters at sub-stations that were not equipped with ASECCA.	101 (a)	At sub-stations not equipped with ASECCA, in the monitoring period, data collection was mainly performed manually by on-duty personnel; then the data were transferred by phone to the head office of the energy system (hereinafter - the ES) for further calculations. For more information, see. Figure 9 in the MR "Scheme of data collection through operational information complex (OIC)"	The issue is closed based on provided information.
CL 03. Please check the numbering of tables and Figures in the MR.	101 (d)	The numbering of Tables and Figures was reviewed. Appropriate corrections were made in the latest version of the MR.	The issue is closed based on changes made.