VERIFICATION REPORT
KHMELNYTSKOBLENERGO PJSC

VERIFICATION OF THE KHMELNYTSKOBLENERGO PJSC POWER DISTRIBUTION SYSTEM MODERNIZATION

SECOND PERIODIC FOR 01/01/2008-30/09/2012

REPORT NO. UKRAINE-VER/0202/2010

REVISION NO. 01

BUREAU VERITAS CERTIFICATION

Report No: UKRAINE-ver/0202/2010

VERIFICATION REPORT: KHMELNYTSKOBLENERGO PJSC POWER DISTRIBUTION SYSTEM MODERNIZATION

Date of first issue: 20/05/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: Khmelnytskoblenergo PJSC	Client ref.: Petro Lutsiv

Summary:
Bureau Veritas Certification has made the initial and 1st periodic verification of the "Khmelnytskoblenergo PJSC power distribution system modernization", project of Khmelnytskoblenergo PJSC located Khmelnyts city and Khmelnytsk Region, Ukraine and use 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 1411911 tonnes of CO2 equivalent for the monitoring period from 01/01/2008 to 30/09/2012 (305798 tonnes of CO2 equivalent for 01/01/2008-31/12/2008, 299708 tonnes of CO2 equivalent for 01/01/2009-31/12/2009, 289877 tonnes of CO2 equivalent for 01/01/2010-31/12/2010, 298356 tonnes of CO2 equivalent for 01/01/2011-31/12/2011, 218172 tonnes of CO2 equivalent for 01/01/2012-30/09/2012).

Report No.: Ukraine-ver/0202/2010	Subject Group: JI	
Project title: Khmelnytskoblenergo PJSC power distribution system modernization"		
Work carried out by: Oleg Skoblyk – Team Leader, Lead Verifier Vyacheslav Yeriomin – Team Member, Verifier		
Work reviewed by: Ivan Sokolov - Technical Reviewer Daniil Ukhanov – Technical specialist		☒ No distribution without permission from the Client or responsible organizational unit
Work approved by: Ivan Sokolov - Operational Manager		☐ Limited distribution
Date of this revision: 01/10/2012	Rev. No.: 03	Number of pages: 30
		☐ Unrestricted distribution

Bureau Veritas Certification Holding SAS

Table of Contents Page

1 INTRODUCTION 3
1.1 Objective 3
1.2 Scope 3
1.3 Verification Team 3

2 METHODOLOGY 4
2.1 Review of Documents 4
2.2 Follow-up Interviews 4
2.3 Resolution of Clarification, Corrective and Forward Action Requests 5

3 VERIFICATION CONCLUSIONS 6
3.1 Remaining issues and FARs from previous verifications 6
3.2 Project approval by Parties involved (90-91) 6
3.3 Project implementation (92-93) 6
3.4 Compliance of the monitoring plan with the monitoring methodology (94-98) 9
3.5 Revision of monitoring plan (99-100) 10
3.6 Data management (101) 12
3.7 Verification regarding programmes of activities (102-110) 13

4 VERIFICATION OPINION 13

5 REFERENCES 15

APPENDIX A: VERIFICATION PROTOCOL 29

1 INTRODUCTION

Khmelnytskoblenergo PJSC has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Khmelnytskoblenergo PJSC power distribution system modernization" (hereafter called "the project") at Khmelnytsk city and Khmelnytsk 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:

Oleg Skoblyk Bureau Veritas Certification	Team Leader, Climate Change Verifier
Vyacheslav Yeriomin Bureau Veritas Certification	Climate Change Verifier

This verification report was reviewed by:

Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

Daniil Ukhanov
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 Khmelnytskoblenergo PJSC and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), and 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) 03 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 07/09/2011 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 Khmelnytskoblenergo PJSC were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Khmelnytskoblenergo PJSC	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
CONSULTANT: "EES" Ltd	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;

(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 6 Corrective Action Requests, 0 Clarification Requests, and 0 Forward Action Requests.

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

3.1 Remaining issues and FARs from previous verifications

No FARs are pending from determination process provided by Bureau Veritas Certification Holding SAS

3.2 Project approval by Parties involved (90-91)

Written project approval by the Host Party has been issued by the State Environmental investment Agency of Ukraine (Letter of Approval #3144/23/7 dated 28/10/2011). Letter of Approval №DZKiOApek-4430-17/19916/11/MK of Sponsor Party issued by the Minister of Environment of Poland dated 04/05/2011.
The abovementioned written approval is unconditional.

3.3 Project implementation (92-93)

Project implementation status in the reporting period of 01/01/2008 – 30/09/2012, including the project milestones is provided in the following table

Table 1. Project implementation status

№	Name of activities	Measurement unit	2008 year	2009 year	2010 year	2011 year	30.09. 2012 year
1	2	3	4	5	6	7	8
1	Construction of unloading TS	pcs.	50	51	46	33	22
2	Replacement of overloaded and installation of additional power transformers	pcs.	80	87	86	90	57

3	Replacement of underloaded transformers	pcs.	53	56	60	59	40
4	Replacement of transformers with high losses, that has been operating more than 25	pcs.	58	38	51	60	56
5	Replacement of bare wire inputs by isolated wire inputs	pcs.	5038	5531	7664	6452	4584
6	Installation of boxes of outside accounting.	pcs.	4759	5701	7160	5828	4332
7	Installation of output points CTS	pcs.	2153	2901	1452	1668	1272
8	Bringing to proper conditions of grounding devices OL-10kV.	pcs.	656	326	213	677	179
9	Bringing to proper conditions of grounding devices OL-0,38kV	pcs.	669	687	846	1745	656
10	Bringing to proper conditions of grounding devices TS- 10/6/0,38kV	pcs.	702	740	936	622	910
11	Lift of contacts in bolt junctions TS 10/6/0,38kV	pcs.	3313	3514	3594	3412	3253
12			63040	59151	73493	90122	71556
13	Load transfer of phase in networks of 0,38kV	pcs.	2557	2213	2213	1955	1353
14	Replacement of power transformers in networks PS- 110/35kV	pcs.	0	0	0	0	0
15	Transformer disable in modes of small loads on two transformer SS of 110/35 kV.	pcs.	233	233	276	277	247
16	Transformer disable in modes of small load on two transformers TS/DS of 10/6kV	pcs.	442	574	613	627	557
17	Replacement of branches(inputs) from OL- 0,38 kV to buildings	pcs.	2855	2482	2031	2105	2037
18	Reducing of expanses on personal needs SS 110/35kV	pcs.	1380	1380	2052	382	432
19	Reducing of expanses on personal needs TS-DS	pcs.	840	874	1193	1089	599

	10/6/0,38kV						
20	Installation of new transformers at functioning TS-DS 10/0,38kV	pcs.	1	9	10	13	10
21	Replacement of switching devices in networks of 10-6-0,38kV	pcs.	274	215	239	370	302
22	Replacement of safety devices in networks of 10-6-0,38kV	pcs.	1557	1461	1873	2094	1469
23	Unloading of OL-10kV	pcs.	0	0	2	5	0
24	Unloading of OL-0,38kV	pcs.	4	18	7	2	0
25	Equalization of loads in phases	pcs.	7672	10674	8072	8994	5818
26	Replacement of overloaded transformers in networks of 110-35kV	pcs.	0	0	0	0	0
27	Installation of new transformers at functioning TS- DS in networks of 110-35kV	pcs.	0	0	0	0	0
28	Change of underloaded transformers in networks of 110-35kV	pcs.	1	0	0	0	0
29	Change of TS -10/0,38kV	pcs.	18	22	19	24	26
30	Replacement of worn-out oil switch devices by vacuum ones in networks of 110-35-10kV	pcs.	23	21	18	0	5
31	Repair of single-phase induction electricity meters	pcs.	21634	32626	17570	1052	18216
32	Repair of single-phase electronic electricity meters	pcs.	2254	5036	3935	8013	8359
33	Repair of three-phase induction electricity meters	pcs.	4239	4342	4486	4676	3121
34	Repair of three-phase electronic electricity meters	pcs.	92	211	437	284	318
35	Introduction of electricity meters with connection to SMART-system	pcs.	1396	2271	1932	3512	4644

36	Introduction of LEDCP and ASEAC at Company substations	pcs.	0	9	10	20	3
37	Introduction of LEDCP and ASEAC to users – juridical person	pcs.	34	8	39	20	21
38	Insulator replacement OL-110kV	pcs.	3322	1675	1615	1107	738
39	Insulator replacement OL-35kV	pcs.	1126	692	898	535	533
40	Optimization of mode operating of the main power supply network by voltage, coefficient of transformation and reactive power in networks of 110-35kV.	pcs.	0	0	18	18	18
41	Optimization of operating voltages in the power centers of radial electric networks of 110-35kV	pcs.	12	12	12	12	9

It was assessed by Bureau Veritas verification team during the site visit that the project has been implemented in accordance with the PDD regarding which the determination has been deemed final.

Since the determined PDD version 2.0 contains miscalculated ERUs for the period of 2008 – 2010 years, and the monitoring was conducted at the beginning of 2012, then according to Ltd «EES» there had been conducted calculations of ERUs for the year 30/09/2012 inclusive.

CAR01-CAR03 and their resolution/conclusion on project implementation concerning in the APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL.

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

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

For calculating the emission reductions or enhancements of net removals, key factors, 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.

The actual amount of emission reductions during the monitoring period differs from values that were indicated in the determinate PDD version 2.0, as a result of using of the differentiated approach to value ratio deterioration of electrical indexes of electrical equipment over time of KP for different billing periods (baseline and current years estimated) while monitoring plan performance, to take account of the effect of improving electrical performance of electrical equipment by introduced measures of TVE reduction and application of the calculated input for 2012.

Key monitoring activities are clearly described in the monitoring report and no deviations from monitoring algorithm were detected. The monitoring points including parameters monitored, monitoring equipment and information concerning its calibration interval are clearly described in the section B of the Monitoring Report and completely corresponds with determined PDD.

Data sources used to calculate emission reductions that i.e. reports according to departmental reporting forms by Ministry of Fuel and Energy of Ukraine (1B-TVE "The structure of electric power balance and technological loss of electric power for transmission in grids" (model 41971), " Electricity and power balance and calculation of technical and economic indexes "(model 8111), 46 energo" Electric power distribution and its calculation "(model 45912) yearly reports on investment programmes realisation are clearly identified, reliable and transparent.

Emission factor for electric energy transportation are selected by carefully balancing Accuracy and reasonableness, and appropriately justified of the choice. Values of Emission Factor for electric power transportation were accepted in compliance with State Environmental Investment Agency of Ukraine Orders.

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

CAR04 and its resolution/conclusion applicable to compliance of the monitoring plan with the monitoring methodology concerning in the APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

3.5 Revision of monitoring plan (99-100)

When calculating actual emission reductions during the monitoring period, following the principles of a conservative approach, for different billing periods (baseline and current years estimated):

a) coefficient value of electrical equipment deterioration index over time of KP_N for the base year N (N = 0) is taken equal to 1,25, as set out in accordance with Annex A "Report on the scientific and technical work"

Assessment of greenhouse gas emissions by technological losses reduction in the distribution networks of Ukraine "(final) under the contract №3/11 of 04.04.2011, the Institute of General Energy of the National Academy of Sciences of Ukraine" value of this ratio can be as high as thirty percent or more of passport values (KP ≥ 1,3) , that is in the beginning of the project implementation in electrical networks it is operated most of the electrical equipment with significant depreciation;
b) coefficient value of electrical equipment deterioration index over time of KP_{N+1} for the current calculated year t, which is the baseline (N = 0, t = 1) is taken equal to 1,15, since the measures implementation of TVE reduction in this year of project realization there has been replaced a part of electrical equipment with the highest level of depreciation;
c) coefficient value of electrical equipment deterioration index over time $KP_{N+t} = KP_{N+1} - 0,01 \cdot t$ for the next calculated years N + t (N = 0, t ≥ 2), ie the coefficient is reduced to 0,01 for each next year in comparison with the previous one, because the share of electrical equipment depreciation, which is operated in networks decreases due to the introduction of measures of TCE reduction;
d) If the calculated value of the coefficient $KP_{N+t} < 1,05$ of ongoing settlement years is N + t (N = 0, t ≥ 2), then for these years, it is taken equal to 1,05, since in electrical networks there will be operated a part of electrical equipment with depreciation.

The difference in the calculation of emissions before and after the change of the monitoring plan is presented in the table below

Year	Emission reduction to changes in the monitoring plan	Emission reduction after the change of the monitoring plan
	tCO2eq	tCO2eq
2008	256 864	305798
2009	250 141	299708
2010	240 446	289877
2011	249 061	298356
30.09.2012		218172
Total 2008-30.09.2012:	996 512	1411911

During the calculation of the actual amount of emission reductions over the monitoring period from 01/01/2012 to 30/09/2012 there was used a balance of payments of electric power for the year 2012 according to the 1B-TVE form, data reporting forms 67-energo as of September 30, 2012 and data on the number of residential consumers as of September 30, 2012. A balance of payments of electric power in 2012 prepared on the basis of the accounting balances of electricity for the months of the year 2012 in the 1B-TVE Form from January to September and balances of payments from October to December, 2012, which adopted the same as

reported balances from October to December, 2011 . The actual amount of emission reductions during the monitoring period from 01/01/2012 to 30/09/2012 is equal to 3/4 of the amount of emission reductions for the year 2012, calculated on the electricity balance of payments for the year 2012. The actual amount of emission reductions over the monitoring period from 01/10/2012 to 31/12/2012 for the future will be calculated as the difference between the actual number of emission reductions in 2012, calculated on the basis of the reporting 1B-TVE form for 2012, reporting form 67 -energo for 2012 and reporting data on the number of residential consumers in 2012, and actual amount of emission reductions over the monitoring period from 01/01/2012 to 30/09/2012.

Bureau Veritas confirms that changes in monitoring plan based on Alteration#1 for "The methodology of technical power losses amount determination, in 0,38-150 kV power grids power supply company for the indirect carbon dioxide emissions estimation" is adequately justified and improves accuracy of the monitoring data.

3.6 Data management (101)

The detailed data management system has been implemented on Khmelnytskoblenergo PJSC to record and keeps required information. The monitored data flow for each parameter to be monitored is described in the section C.1 of the Monitoring Report. Operational information and reporting department is responsible to monitoring data preparation.

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

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

The function of the monitoring equipment, including its calibration status, is in order. Metering equipment involved in the project activity are periodically calibrated by State Enterprise "Khmelnytskstandartmetrologiya". Data on electric energy flow are periodically checked by Khmelnytskoblenergo PJSC.

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 data monitored and required for ERUs calculation will be kept during two years after last ERUs transfer.

CAR05, CAR06 and their resolution/conclusion applicable to data management concerning in APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

3.7 Verification regarding programmes of activities (102-110)

"Not applicable"

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the second periodic verification of the "Khmelnytskoblenergo PJSC power distribution system modernization" Project in Khmelnytsk City and Khmelnytsk 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 Khmelnytskoblenergo PJSC 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. 2.0. 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 03 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. For ease of calculation of emission reductions in the Excel file «XM-1BTWE-2008-30.09.2012-12-11-2012-Km=1-ok-KP-CO-MR-ENG.xls.», all the values with the quotient of one hundred are rounded to integers. Therefore, when summing the values of ERUs, which are listed in Tables of Monitoring Report there may be minor differences 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 30/09/2012

Baseline emissions	:1411911	tonnes of CO2 equivalent.
Project emissions	:0	tonnes of CO2 equivalent.
Emission Reductions	:1411911	tonnes of CO2 equivalent.
Emission Reductions (01/01/2008-31.12.2008)	:305798	tonnes of CO2 equivalent.
Emission Reductions (01/01/2009-31.12.2009)	:299708	tonnes of CO2 equivalent.
Emission Reductions (01/01/2010-31.12.2010)	: 289877	tonnes of CO2 equivalent.
Emission Reductions (01/01/2011-31.12.2011)	: 298356	tonnes of CO2 equivalent.
Emission Reductions (01/01/2012-30.09.2012)	: 218172	tonnes of CO2 equivalent.

5 REFERENCES

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

/1/ Project Design Document "Khmelnytskoblenergo PJSC power distribution system modernization" version 2.0 dated 29/08/2011
/2/ Monitoring report "Khmelnytskoblenergo PJSC power distribution system modernization" version 01 dated 29/09/2011
/3/ Monitoring report "Khmelnytskoblenergo PJSC power distribution system modernization" version 02 dated 31/01/2012
/4/ Monitoring report " power distribution system modernization" version 03 dated 01/10/2012
/5/ ERUs calculation Excel-file «XM-1BTWE-2008-30.09.2012-12-11-2012-Km=1-ok-KP-CO-MR-ENG.xls»
/6/ Letter of Approval #3144/23/7, issued by the State Environmental Investment Agency dated 28/10/2011
/7/ Letter of Approval #DZKiOApek-4430-17/19916/11/MK issued by the Minister of Environment of Poland dated 04/05/2011

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

1. Decree of Cabinet of Ministers of Ukraine #206, dated 22/02/2006
2. Joint Implementation Project Design Document Form, version 01
3. Guidelines for Users of the Joint Implementation Project Design Document Form/Version 04, JISC.
4. JISC Guidance on criteria for baseline setting and monitoring. Version 02.
5. "Combined tool to identify the baseline scenario and demonstrate additionality" (Version 03.0.0)
6. Glossary of Joint Implementation Terms, Version 03.
7. Decree #43 on approval of indexes of specific carbon dioxide emissions in the year 2010 issued by NEIA dated 28.03.2011.
8. Decree #62 on approval of indexes of specific carbon dioxide emissions in the year 2008 issued by NEIA dated 15.04.2011.
9. Decree #63 on approval of indexes of specific carbon dioxide emissions in the year 2009 issued by NEIA dated 15.04.2011.
10. Decree #75 on approval of indexes of specific carbon dioxide emissions in the year 2011 issued by NEIA dated 12.05.2011.
11. The methodology of technical power losses amount determination, in 0,38-150 kV

tension power grids power supply company for the indirect carbon dioxide emissions estimation

12. 1 section of tire 10kV
13. Service base PJSC "Khmelnytskoblenergo"
14. Academy of Energy of Ukraine. Certificate # 21, Lutsiv P.
15. Statement (passport) of technical examination of accounting units and inspection of electrical installation of consumers
16. Statement of revise between PJSC EK "Khmelnytskoblenergo" and PJSC ''Zhytomyroblenergo'' as for 01.10.2010
17. Statement of revise between PJSC EK "Khmelnytskoblenergo" and PJSC ''Ternopiloblenergo'' as for 01.10.2010
18. Statement of revise between PJSC EK "Khmelnytskoblenergo" and PJSC JSC ''Vinnytsaroblenergo'' as for 01.10.2010
19. Statement of revise between PJSC EK "Khmelnytskoblenergo" and PJSC EK ''Chernivtsioblenergo'' as for 01.10.2010
20. Statement of revise between PJSC EK "Khmelnytskoblenergo" and CJSC ''Rivneenergo'' as for 01.10.2010
21. Statement of indications revise of calculated meters in 24-00 h and calculation of received and transmitted electrical energy.
22. Balance of electrical and thermal energy and calculation of technical and economical indications for October 2010.
23. Group of modes ODS
24. Department of high-voltage power networks
25. State classification of goods and services ДК 016-97
26. State Committee of Ukraine for Energy Saving. Letter to deputy minister of fuel and energy of Ukraine
27. Diplomas and awards of PJSC "Khmelnytskoblenergo"
28. Dispatching room ODS
29. Contract # 1201 on electric energy supply to legal and physical persons - subjects of business activity of 29.12.2008
30. Annex # 10 to Contract #1201 of 29.12.2008, Order of calculations.
31. Annex # 7 to Contract #1201 of 29.12.2008. Calculation of electrical energy losses in the consumer's network 19.12.2008
32. Annex # 2 to Contract #1201 of 29.12.2008, List of places of installation of calculation accounting units
33. Annex # 3 to Contract #1201 of 29.12.2008. Schedule of readout and transfer of characteristics to Supplier in 2009.

34. Annex # 3 to the order #2 of 04.01.11. Conclusion on reached level of qualification
35. Annex # 5 to Contract #1201 of 29.12.2008. Statement of delimiting of balance independence of electric networks and parties' operational responsibility
36. Annex # 7 to Contract #1201 of 29.12.2008, Value of connected and permitted power for usage
37. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2001
38. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2002
39. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2003
40. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2004
41. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2005
42. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2006
43. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2007
44. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2008
45. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2009
46. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2010
47. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 2011
48. Departmental report 1Б-ТВЕ power grid Khmelnytskoblenergo PJSC for 30/06/2012
49. Form 67 energy for 2008
50. Form 67 energy for 2009
51. Form 67 energy for 2010
52. Form 67 energy for 2011
53. Form 67 energy for 30/06/2012
54. Form 68 energy for 2008
55. Form 68 energy for 2009
56. Form 68 energy for 2010
57. Form 68 energy for 2011
58. Form 68 energy for 30/06/2012
59. Log-book of tasks issue on analysis
60. Log-book of generation of electrical energy at TPP and HPP
61. Log-book of counters
62. Log-book of accounting of mono-phase electricity meters calibration

ЦРПО

63. Log-book of accounting of three-phase electricity meters calibration
64. Log-book of daily accounting of electrical energy at substations "Khmelnytskoblenergo" and adjacent EC. Started 01.05.2010
65. The task of the analysis
66. Collection of standard educational plans and programs for professional education of unemployed population.
67. Report on moving of single-phase meters in terms of state calibration for December 2010
68. Journal of certificate registration
69. Information on electrical energy consumer Bozhyskov I.G.
70. Information for consumers
71. Receipt of payment for electricity
72. State calibration room
73. Switching room
74. Control panel of system protection and substation automatics
75. Letter # 05-01/293 of 08.12.2010
76. License # 220545 on electrical energy transmitting to municipal (local) electrical networks.
77. License # 220546 on electrical energy supply by regular schedule
78. License # 516148
79. License # 548261 on design, mounting, technical maintenance of fire-extinguishing means and heating systems, assessment of fire-protection condition of objects
80. Electricity meter # 9413
81. Electricity meter # 9421
82. Electricity meter # 9422
83. Electricity meter # 9431
84. Electricity meter # 9432
85. Emergency electric car
86. Procedure of preparation of the balance of power structure in electric networks 0,38-150 kV. Analysis of its components and technology of electric power rationing
87. Module-1.2102M. Electronic electricity meter. Made in Ukraine
88. Educational and course room of PJSC "Khmelnytskoblenergo"

89. Order # 2 of 04.01.2011 on training
90. Order # 3 of 04.01.2011 on appointment the commission on examination in ECR of Company
91. Order # 4 of 04.01.2011 on enrolment for education
92. Order # 766 of 17.12.2010 on appointment the commission on examination in ECR of Company
93. Order # 778 of 23.12.2010 on appointment the commission on examination in ECR of Company
94. Single-line diagram of electrical networks
95. Single-line diagram of electrical equipment
96. Single-line diagram of commutation
97. Single-line diagram of electrical energy supply
98. Single-line diagram of electrical energy supply
99. Single-line diagram of electrical energy supply
100. Single-line diagram of electrical energy supply
101. Operational journal of daily accounting electricity consumption of REN
102. Operational journal of daily accounting electricity consumption on HPdPEM
103. Operational room of ACKOE
104. Panel of protection of transformer T1
105. Panel of protection of transformer # T1
106. Passport. Electricity meters, three-phases, electrical, multifunctional ET.
107. List of substations of PJSC "Khmelnytskoblenergo"
108. Plan of course education in educational and course room of PJSC EK "Khmelnytskoblenergo" for 2008.
109. Plan of course education in educational and course room of PJSC EK "Khmelnytskoblenergo" for 2008.
110. Plan of course education in educational and course room of PJSC EK "Khmelnytskoblenergo" for 2009.
111. Plan of course education in educational and course room of PJSC EK "Khmelnytskoblenergo" for 2010.
112. Plan of course education in educational and course room of PJSC EK "Khmelnytskoblenergo" for 2011.
113. Notice to the payment # 357927 of 07.12.2010 for November 2010.

114. Notice # 14/22
115. Notice # 2/3
116. Notice of electrical energy consumption for December 2010
117. Notice of electrical energy consumption, personal payment 415131
118. Complex transformer substation, type - КТП1М-250/10/0,4-92-У1, # 1080648
119. Regulation on operational-dispatching service PJSC "Khmelnytskoblenergo"
120. Regulation on operational-dispatching service PJSC "Khmelnytskoblenergo" # 03-02-П-02-2007
121. Job description # 03-02-ПІ-02-2007 of deputy head of operational-dispatching service Babiy C.E.
122. Job description of deputy head of ODS
123. Certificate # 260, Matviuik V.M., Head of shop. Date of issue 27.03.2009
124. Rules of electrical energy use as for 07.05.2010
125. The program of vocational and practical training of regular maintenance of electrical substations of 4 group of skills
126. Continuation of protocol # 21 of initial calibration of electronic electricity meters of type Module-1.2102M
127. Protocol # 21 of initial calibration of electronic electricity meters of type Module-1.2102M
128. Report on electric energy delivery for October 2010 # 1701-2099
129. List of indications of electricity meters of consumers, 27.12.2010
130. Calculation scheme according to scheme in Annex 5
131. Certificate on working skills giving
132. Sector for task preparing for linear controllers
133. Server
134. Service centre of working with subscribers
135. Substation system ASKOE
136. Metrology service
137. List of duty electricians on substation maintenance
138. Stand for examination and repair of electronic electricity meters
139. Stand of repair of inductive electricity meter
140. Structural scheme of central point АСКОЕ

141. Scheme of electrical networks of south direction (control room)
142. Scheme of networks 110-35 kV (south direction). Scheme of normal mode for 2009-2010
143. Scheme of networks 110-35 kV (south direction). Scheme of normal mode for 2010-2011
144. Scheme of networks 110-35 kV (north direction). Scheme of normal mode for 2009-2010
145. Scheme of primary connections
146. Tables and diagrams of ACKOE
147. Standard educational plans and programs for course vocational education of workers.
148. Standard educational plans and programs for vocational education of workers.
149. Transformer # 803351
150. Form # 46. Net power output of electric power calculations for it with cumulative
151. Photo of control hall of south direction of Khmelnytskoblenergo
152. Photo of garbage of old transformers
153. Photo of transformer substation T1
154. Photo, server room of service centre PJSC "Khmelnytskoblenergo"
155. Central point of ASKOE of PJSC "Khmelnytskoblenergo". Server support of database and
156. Daily report for 06.01.2010
157. Effective issuing of electric power and its accounting for 2008
158. Effective issuing of electric power and its accounting for 2009
159. Sample of Statement on electricity meter exchange
160. Agreement #10/07-07 on electricity meters repair dated 09/07/2010
161. Certificate series B #005887 of conformity of measurement devices to the approved type #UA-MI/2-3300-2010 dated 08.06.2010
162. Certificate series B #004584 of conformity of measurement devices to the approved type #UA-MI/2-2418-2007 dated 26.11.2007
163. Agreement #09/05-15 for meters repair dated 25.05.2009
164. Additional arrangement #2 dated 04.01.2011 to the agreement #09/05-15 dated 25.05.2009
165. Agreement #10/08-03 for meters repair dated 09.08.2010

166. Agreement #09/04 for meters repair dated 30.04.2007
167. Additional arrangement #2 dated 29.12.2009 to the agreement #09/04 dated 30.04.2007
168. Agreement #1/09 for meters repair dated 28.01.2009
169. Agreement #19/05-12 for meters repair dated 29.05.2009
170. Agreement #09/03-28 for meters repair dated 27.03.2009
171. Agreement #311 for performance of standardization, certification, metrology and service providing activities dated 09.02.2010
172. Additional arrangement about modification and addition to the agreement #311 dated 09.02.2010
173. Plan of three-phase electricity meters repair for 2009
174. Plan of three-phase electricity meters repair and replacement for 2010
175. Plan of one-phase electricity meters repair for 2011
176. Plan of three-phase electricity meters repair for 2011
177. Plan of one-phase electricity meters repair and replacement for 2011
178. List of measurement devices that are in operation and should be verified in 2009
179. List of measurement devices that are in operation and should be verified in 2010
180. Statement on validation of estimation meters data for 24-00 hour and calculation of quantity of received, supplied electric power on the line of balance accessory between Wholesale Market and PJSC "EC Khmelnytskoblenergo" for September 2010
181. Statement of validation between PJSC "Khmelnytskoblenergo" and PJSC "Chernivtsioblenergo" for 01.10.2010
182. Statement of validation between PJSC "Khmelnytskoblenergo" and PJSC "Ternopiloblenergo" for 01.10.2010
183. Statement of validation between PJSC "Khmelnytskoblenergo" and PJSC "Zhytomyroblenergo" for 01.10.2010
184. Statement of validation between PJSC "Khmelnytskoblenergo" and PJSC "Rivneenergo" for 01.10.2010
185. Statement of validation between PJSC "Khmelnytskoblenergo" and PJSC "SC Vinnytsiaoblenergo" for 01.10.2010
186. Certificate of reception and sale. Electronic electricity meter. Module 1.2102
187. Electronic electricity meters. Module-1. Passport АМАФ.411152.001 ПС. 2010

188. Plan of electricity meters replacement on PJSC "Khmelnytskoblenergo" for 2009
189. Permit #6811252 dated 07/09/2011 for waste allocation in 2011, valid from 01/01/2011 till 31/12/2011, issued by Khmelnytskyi Region State Environmental Protection Office
190. Permit #6810157 dated 01/07/2009 for waste allocation in 2010, valid from 01/01/2010 till 31/12/2010, issued by Khmelnytskyi Region State Environmental Protection Office
191. Extract from Decision dated 10/06/2010 #664 on providing the permits on hazardous wastes handling objects operation
192. Conclusion #39 dated 25/03/2010 of sanitary and epidemiological expertise, issued by Khmelnytskyi Region Sanitary and Epidemiological Office
193. Conclusion #187 dated 29/06/2010 of sanitary and epidemiological expertise, issued by Khmelnytskyi Region Sanitary and Epidemiological Office
194. Calculation of production wastes at PJSC energy supply company “Khmelnytskoblenergo” for 2011
195. Project on limits for waste allocation in 2011 at PJSC energy supply company “Khmelnytskoblenergo”
196. Statement dated 01/06/2010 on environmental protection legislation requirements observance
197. Order #83 dated 09/02/2010 on appointment of personnel responsible for environmental protection
198. Order #640 dated 06/10/2009 on appointment of personnel responsible for environmental protection
199. Certificate AA#171147 from Ukrainian Enterprises and Organizations State Register (EDRPOU), issued by State Office of Statistics in Khmelnytskyi Region
200. Information on standard permissible wastes amount at PJSC energy supply company “Khmelnytskoblenergo”
201. Information on specific parameters wastes at PJSC energy supply company “Khmelnytskoblenergo” for 2009
202. Information on wastes removing and utilization units and facilities availability at PJSC energy supply company “Khmelnytskoblenergo”
203. Information on amounts of wastes that are used as recycled resources and their formation, accumulation, consumption and supply at PJSC energy supply company “Khmelnytskoblenergo”
204. Information on availability of specifically designated according to the legislation places or objects for wastes deposits at PJSC energy supply company “Khmelnytskoblenergo”
205. Report on fulfillment of planned actions in the sphere of wastes utilization for 2010 at PJSC energy supply company Khmelnytskoblenergo”
206. Environmental protection programme dated 09/12/2009 at PJSC energy supply company “Khmelnytskoblenergo” for 2010
207. Request on issuing the permit for wastes allocation

208. Data on produced wastes composition and characteristics and level of their hazard for environment and human health
209. Contract #3557 dated 29/12/2009 on providing the services of everyday wastes removal
210. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for August 2010
211. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for July 2010
212. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for June 2010
213. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for May 2010
214. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for April 2010
215. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for March 2010
216. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for February 2010
217. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for January 2010
218. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for December 2010
219. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for November 2010
220. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for October 2010
221. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company “Khmelnytskoblenergo” for September 2010
222. Energy supply, distribution and technological consumption at PJSC energy supply company “Khmelnytskoblenergo” for 2010, monthly data
223. Energy supply, distribution and technological consumption at PJSC energy supply company “Khmelnytskoblenergo” for the period 2001 - 2010
224. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company

"Khmelnytskoblenergo" 2008

225. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company "Khmelnytskoblenergo" for 12 months 2009
226. Power and heat energy balance with technical and economical parameters calculation (model 8111) at PJSC energy supply company "Khmelnytskoblenergo" for 12 months 2010
227. Official instructions and regulations #06-02-ПІ-01-2009 dated 30/04/2009 of environmental protection and fire safety service environmental protection engineer Anton Tomusiak
228. Official instructions and regulations #06-02-ПІ-01-2009 dated 08/11/2010 of environmental protection and fire safety service technician Liudmyla Prokopchuk
229. Objectives of environmental protection and fire safety executive director for 2011
230. Permit #6810100000-450 on air pollutant emissions by stationary sources, issued to PJSC energy supply company "Khmelnytskoblenergo" by Ministry of Environmental Protection of Ukraine
231. Permit #6810100000-451 on air pollutant emissions by stationary sources, issued to PJSC energy supply company "Khmelnytskoblenergo" by Ministry of Environmental Protection of Ukraine
232. Regime card of wastes formation, handling and utilization, registration #391, dated 07/04/2010
233. Technical passport on wastes. Fluorescent lamps and wastes that contain mercury. 7710.3.1.26
234. Technical passport on wastes. Engine, transmission and other corrupt or consumed oils. 6000.2.8.10
235. Technical passport on wastes. Wasted and consumed batteries and accumulators. 6000.2.9.08
236. Technical passport on wastes. Wasted, consumed, faulty and dirty tyres. 6000.2.9.03
237. Passport on wastes storage location. Fluorescent lamps and wastes that contain mercury.
238. Passport on wastes storage location. Engine, transmission and other corrupt or consumed oils.
239. Passport on wastes storage location. Wasted and consumed batteries and accumulators.
240. Passport on wastes storage location. Wasted, consumed, faulty and dirty tyres.
241. Passport on wastes. Consumed fluorescent lamps.
242. Passport on wastes. Consumed oils and engine oils.
243. Passport on wastes. Consumed lead batteries.
244. Passport on wastes. Consumed tyres.
245. Information on wastes handling operations for 2010
246. Supply contract #10/10-35 dated 12/10/2010

247. Contract #13/02-09 dated 20/02/2009 on proving the hazardous wastes handling services
248. Agreement #10/05-18 dated 12/05/2010
249. Letter #06/02-117 dated 12/01/2010 concerning the Report on water consumption for 4th quarter 2009
250. Report dated 11/01/2010 on water consumption for 4th quarter 2009
251. Expenses report on environment protection and ecological fees for 2009
252. Expenses report on environment protection and ecological fees for 2008
253. Report dated 19/01/2009 on formation, handling and utilization of I-III hazard levels wastes for 2008
254. Report dated 06/01/2011 on water consumption for 4th quarter 2010
255. Letter #07/02-155 dated 15/01/2010 concerning the Report on formation, handling and utilization of I-III hazard levels wastes for 2009
256. Report dated 18/01/2010 on formation, handling and utilization of I-III hazard levels wastes for 2009
257. Note on the amount of toxic wastes and deposits for 2009 according to SMiT
258. Note on fluorescent lamps handing over for further utilization, issued by Kyiv Regional Centre of Hazardous Wastes Handling
259. Note on accumulation batteries handing over for further utilization, issued by Kyiv Regional Centre of Hazardous Wastes Handling
260. Statement #HO-0000042 on work handing-acceptance (service providing)
261. Statement #HO-0000035 on work handing-acceptance (service providing)
262. Statement #HO-0000020 on work handing-acceptance (service providing)
263. Statement #HO-0000013 on work handing-acceptance (service providing)
264. Statement on work acceptance-transmitting
265. Statement #HO-0000004 on work handing-acceptance (service providing)
266. Statement #HO-0000003 on work handing-acceptance (service providing)
267. Information on transformers' acceptance to repair at Medzhybizh Central Repair Shop
268. Agreement #03-18/10 dated 30/02/2010
269. Invoice-request #126 dated 19/04/2010
270. Invoice-request #298 dated 21/08/2010
271. Invoice-request #294 dated 20/08/2010
272. Invoice-request #172 dated 14/05/2010
273. Invoice-request #160 dated 07/05/2010
274. Invoice-request #174 dated 17/05/2010
275. Invoice-request #326 dated 13/09/2010
276. Invoice-request #453 dated 07/12/2010

277. Information on production programme, production capacity, production output and provided services amount by industry and technological equipment
278. Information on sanitary and preservative zone
279. Information on consumed raw and other materials
280. Information on enterprise location and environment conditions
281. Information on air pollution condition
282. Information on the type of pollutant emissions amounts
283. Air pollutant emissions influence assesment
284. Analysis of pollutant emissions conformity
285. Suggestions on permitted emissions
286. Suggestions on alterations to the permit on air pollutant emissions
287. Information on receiving the permit for public acknowledgement
288. Passport and calibration certificate on 3-phase meter ET 2A 5E 7URLT, fabrication #2887, calibrated 28/12/10
289. Passport and calibration certificate on 3-phase meter ET 2A 5E 7URLT, fabrication #42889, calibrated 28/12/10
290. Passport and calibration certificate on 3-phase meter ET 2A 5E 7URLT, fabrication #2886, calibrated 28/12/10
291. Logbook on three phases meters calibration
292. Logbook on three phases meters calibration
293. Power meter Modul-1.2102M
294. Protocol #21 on power meter Modul-1.2102M initial calibration
295. Report on power meters calibration
296. Power meter ET 2A 5E 7URLT, fabrication # 9432
297. Power meter ET 2A 5E 7URLT, fabrication # 94329421
298. Power meter ET 2A 5E 7URLT, fabrication # 94329413
299. Power meter ET 2A 5E 7URLT, fabrication # 9422
300. Power meter ET 2A 5E 7URLT fabrication # 9431
301. Power meters ET 2A 5E 7URLT, fabrication # 37014 and ET 2A 5E 7URLT, fabrication # 37018
302. Power meter Merkuriy 230 # 05437782-10 r
303. Power meter ET 2A 5E 7URLT, fabrication # 26422

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/ Slobodyan A.M. – representative of “Khmelnytskoblenergo” PJSC
/2/ Stepaniuk A.G. – representative of “Khmelnytskoblenergo” PJSC”
/3/ Luciw P.D. – representative of “Khmelnytskoblenergo” PJSC
/4/ Danylkiv V.D. – representative of “Khmelnytskoblenergo” PJSC
/5/ Matviyuk V.M. – representative of “Khmelnytskoblenergo” PJSC
/6/ Trach E.B. – representative of “Khmelnytskoblenergo” PJSC
/7/ Klid M.M. – representative of “Khmelnytskoblenergo” PJSC
/8/ Mukha O.O. – representative of “Khmelnytskoblenergo” PJSC
/9/ Terlecki V.P. – representative of “Khmelnytskoblenergo” PJSC
/10/ Prykolotin V.L. – representative of “Khmelnytskoblenergo” PJSC

/11/ Nazarov V.V. – representative of “Khmelnytskoblenergo” PJSC
/12/ Prots R. – representative of Ltd «EES»

APPENDIX A:
VERIFICATION PROTOCOL

Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	The project has been approved by both Party involved. Letter of Approval #3144/23/7 on 28/10/2011 has been issued by State Environment Investment Agency of Ukraine. Letter of Approval #DZKiOApek-4430-17/19916/11/MK issued by the Minister of Environment of Poland dated 04/05/2011.	OK	OK
91	Are all the written project approvals by Parties involved unconditional?	All the written project approvals are unconditional	OK	OK
Project implementation				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	*CAR01* Please indicate correct date and valid version of PDD throw all Monitoring Report *CAR02* The monitoring report indicates project implementation status in the *Table 1* in the section A.6. The determined PDD doesn't contain list of proposed measures. Please provide in the Monitoring Report reference to reliable and transparent source of these data. Also please explain if planned actions for 2008-30/09/2012 years are different from implemented measures.	CAR01 CAR02	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CAR03 Please provide an explanation of the difference between the number of reduction units as indicated in the PDD and monitoring report for the reporting period		
93	What is the status of operation of the project during the monitoring period?	The project equipment is in operation during the monitoring period.	OK	OK
Compliance with monitoring plan				
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The monitoring has been occurred in accordance with the monitoring plan provided in the PDD which the determination has been deemed final and is available on the UNFCCC website.	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 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?	Key factors influencing the baseline emissions and risks associated with the project activity level have been taken into account for emission reduction calculation.	OK	OK
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	*CAR04* Please provide to AIE next sources to prove calculations reliability: - the number of residential consumers - the number of single and three phase electricity meters - the number of electricity meters with different	CAR04	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		accuracy - the number of induction and electricity meters -		
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?	Emission factor for electric power transmission is used for emission reduction calculation. Value of Emission factor is accepted from year to year by National Environmental Investment Agency Orders.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.	OK	OK
Applicable to JI SSC projects only				
96	Is the relevant threshold to be classified as JI SSC project not exceeded during the monitoring period on an annual average basis? If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI SSC project or the bundle for the monitoring period determined?	Not applicable	Not applicable	Not applicable
Applicable to bundled JI SSC projects only				
97 (a)	Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
97 (b)	If the determination was conducted on the basis of an overall monitoring plan, have the project participants submitted a common monitoring report?	Not applicable	Not applicable	Not applicable
98	If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report? Do the monitoring periods not overlap with those for which verifications were already deemed final in the past?	Not applicable	Not applicable	Not applicable
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	The monitoring plan has not been revised by project participants	Not applicable	Not applicable
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?	Not applicable	Not applicable	Not applicable
Data management				
101 (a)	Is the implementation of data collection procedures in accordance with the	The implementation of data collection procedures are in accordance with the monitoring plan	CAR05	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	monitoring plan, including the quality control and quality assurance procedures?	contains in the determined PDD. *CAR05* Please provide in the section C.1 transparent scheme of data collection with indication of monitored parameters and responsible persons		
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	The function of monitoring equipment including its calibration status is in order. Electric measuring equipment are calibrated by State Enterprise "KhmeInytskstandartmetrologiya" under approved plan	OK	OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	The evidences and records are used for the monitoring 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?	*CAR06* Please indicate that the data monitored and required to ERUs calculation will be kept two years after the last ERUs transfer. Also please provide to AIE relevant order	CAR06	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?	Not applicable	Not applicable	Not applicable
103	Is the verification based on the monitoring reports of all JPAs to be verified?	Not applicable	Not applicable	Not applicable
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
104	Does the monitoring period not overlap with previous monitoring periods?	Not applicable	Not applicable	Not applicable
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	Not applicable	Not applicable	Not applicable
Applicable to sample-based approach only				
106	Does the sampling plan prepared by the AIE: (a) Describe its sample selection, taking into account that: (i) For each verification that uses a sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics of JPAs, such as: − The types of JPAs; − The complexity of the applicable technologies and/or measures used; − The geographical location of each JPA; − The amounts of expected emission reductions of the JPAs being verified; − The number of JPAs for which	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emission reductions are being verified; − The length of monitoring periods of the JPAs being verified; and − The samples selected for prior verifications, if any?			
107	Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?	Not applicable	Not applicable	Not applicable
108	Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?	Not applicable	Not applicable	Not applicable
109	Is the sampling plan available for submission to the secretariat for the JISC.s ex ante assessment? (Optional)	Not applicable	Not applicable	Not applicable
110	If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?	Not applicable	Not applicable	Not applicable

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CAR01 Please indicate correct date and valid version of PDD throw all Monitoring Report	92	The correct date and version of the determined PDD has been indicated throw all Monitoring Report version 02 dated 31/01/2012	The corrections of Monitoring Report were provided by the project developer. The issue is closed
CAR02 The monitoring report indicates project implementation status in the *Table 1* in the section A.6. The determined PDD doesn't contain list of proposed measures. Please provide in the Monitoring Report reference to reliable and transparent source of these data. Also please explain, if planned actions for 2008-30/09/2012 years are different from implemented measures.	92	All information on project implementation was provided from official and approved sources such as Reports on investment programs realization for relevant year. These Reports have been sent to National energetic Regulatory Commission of Ukraine (NERC), NJSC "Energy Company of Ukraine", Ministry of Fuel and Power of Ukraine. Soft copies of Reports were provided to AIE.	The information concerning in Reports is in line with the ERUs calculation Excel file. The issue is closed.

CAR03 Please provide an explanation of the difference between the number of reduction units as indicated in the PDD and monitoring report for the reporting period	92	Since the determined PDD version 2.0 contains miscalculated ERUs for the period of 2008 – 2010 years, and the monitoring was conducted at the beginning of 2012, then according to Ltd «EES» there had been conducted calculations of ERUs for the year 30/09/2012 inclusive. The actual amount of emission reductions during the monitoring period differs from values that were indicated in the determinate PDD version 2.0, as a result of using of the differentiated approach to value ratio deterioration of electrical indexes of electrical equipment over time of KP for different billing periods (baseline and current years estimated) while monitoring plan performance, to take account of the effect of improving electrical performance of electrical equipment by introduced measures of TVE reduction and application of the calculated input for 2012. The calculation results for 2008 to 30/09/2012 contained in the file Excel «XM-1BTWE-2008-30.09.2012-12-11-2012-Km = 1-ok-KP-CO-MR-ENG.xls»	Corrections were found satisfactory. The issue is closed.

CAR04 Please provide to AIE next sources to prove calculations reliability: - the number of residential consumers - the number of single and three phase electricity meters - the number of electricity meters with different accuracy - the number of induction and electricity meters	95(b)	The sources of abovementioned parameters such as Reports on investment programs realization for relevant year, reports on power metering system implementation (67 Form) " A report on the organization of accounting systems of active electrical energy for consumers and installing in electrical grids for consumers and electricity supplying organizations the automated electricity metering and local equipment for data collection and processing (LUZOD)	These data sources were found satisfactory. Concerning in *CAR04* data is in line with ERUs calculation Excel file. The issue is closed.
CAR05 Please provide in the section C.1 transparent scheme of data collection with indication of monitored parameters and responsible persons	101 (a)	Corrections of monitoring scheme were provided. The data flow and responsible persons were indicated in the section C of Monitoring Report version 02 dated 31/01/2012.	Corrections were found satisfactory. The issue is closed.
CAR06 Please indicate that the data monitored and required to ERUs calculation will be kept two years after the last ERUs transfer. Also please provide to AIE relevant order	101(d)	The Monitoring Report version 02 dated 31/01/2012 indicates that the data monitored and required for ERUs calculation will be kept during two years after the last ERUs transfer. Order on data keeping issued by Khmelnytskoblenergo" PJSC has been provided to AIE	Correction of the monitoring report has been provided. The AIE obtained relevant order issued by Khmelnytskoblenergo" PJSC . The issue is closed