VERIFICATION REPORT
THE WORLD BANK

VERIFICATION OF THE
UKRHYDROENERGO (UHE) HYDROPOWER REHABILITATION PROJECT IN UKRAINE PERIODIC FOR THE PERIOD 01/01/2012 – 31/12/2012

REPORT NO. UKRAINE-VER/0399/2011

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BUREAU VERITAS CERTIFICATION

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VERIFICATION REPORT

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Client:	**Client ref.:**
The World Bank	Javiere Freire Coloma

Summary:

Bureau Veritas Certification has made the periodic verification of the "UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine" project, Registration Reference Number UA1000226, project of The World Bank, located in Ukraine, and applying the JI specific approach, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against 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 described in the approved project design document and the determined changes occurred during project implementation. 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 175235 tonnes of CO_2 equivalent for the monitoring period from 01/01/2012 to 31/12/2012.

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

Report No.:	Subject Group:
UKRAINE-ver/0399/2011	JI
Project title:	
"UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine"	
Work carried out by:	
Kateryna Zinevych – Team Leader, Lead Verifier Sergiy Kustovskyy – Team Member, Lead Verifier	
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Ivan Sokolov – Operational Manager	

Bureau Veritas Certification Holding SAS

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1 INTRODUCTION

The World Bank has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project “UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine” (hereafter called “the project”) in 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, 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:

Kateryna Zinevych Bureau Veritas Certification	Team Leader, Climate Change Lead Verifier
Sergiy Kustovskyy Bureau Veritas Certification	Team Member, Climate Change Lead Verifier

This verification report was reviewed by:

Ivan Sokolov Bureau Veritas Certification,	Internal Technical Reviewer

Vyacheslav Yeriomin
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 the World Bank and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology and/or Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report version(s) 01.0 and 01.1 and project as described in the determined PDD.

2.2 Follow-up Interviews

On 21/05/2013 - 23/05/2013 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 the World Bank and UkrHydroEnergo were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
UkrHydroEnergo	➢ 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
The World Bank	➢ 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 03 Corrective Action Requests and 02 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

No FARs were raised during previous verification.

3.2 Project approval by Parties involved (90-91)

The project obtained approval by the Host party (Ukraine) on 18/05/2007 (Letter of Approval issued by the Ministry of Environmental Protection of Ukraine), see References.

Written project approval by the Netherlands (sponsor party) has been issued by the DFP of the Party when submitting the first verification report, see References.

The above mentioned written approvals are unconditional.

No outstanding issues were raised as per project approval by the parties involved.

3.3 Project implementation (92-93)

The Project involves rehabilitation of 43 hydro units which are located on the Dnipro river and the Dnister river. The actual operation of the proposed project includes the replacement of hydraulic power, electro-technical and hydro-mechanical equipment such as gates, turbines, generators, excitation and governor systems, control, protection and automation systems, switchyard equipment and auxiliary equipment. The

Project also includes works on hydraulic structures and installation of computer-aided dam safety monitoring systems.

The Project does not result in an increase in the reservoir area; the rehabilitated hydropower plants generate additional electricity without emitting GHG. This leads to the reduction of anthropogenic GHG emissions by displacing electricity produced by fossil fuel fired power plants.

Since technological equipment directly related to the project will not vary from the old equipment, no special training for the staff is required. New equipment maintenance is performed according to the schedule provided in the operation manuals established by the company in accordance with the sectoral norms. Usually routine maintenance is performed every year, while overhauls of main generating equipment performed every 6-7 years. In terms of environmental benefits, the Project helps to reduce air pollution caused by the emission of SO_2 and NO_X by outdated thermal plants.

From the start of the Project to December 31, 2012, rehabilitation was completed on 28 hydro units at the Kyiv HPP, Kanyv HPP, Kremenchuk HPP, Dniprodzerzynsk HPP, Dnipro HPP and Kakhovka HPP. The names of the rehabilitated hydro units and the dates of completion of the rehabilitation are provided below.

Year/Plant Name	*2006 (HPU# - DD/MM)*	*2007 (HPU# - DD/MM)*	*2008 (HPU# - DD/MM)*	*2009 (HPU# - DD/MM)*	*2010 (HPU# - DD/MM)*	*2011 (HPU# - DD/MM)*	*2012 (HPU# - DD/MM)*
Kyiv HPP	-	HPU#19 - 16/12 HPU #10 - 29/09	-	HPU#11 -15/11 HPU#17 – 15/05 HPU#20 – 14/11	HPU#9 – 15/12	HPU #12 – 16/09	-
Kanyv HPP	-	HPU # 7 - 15/12 HPU # 5 - 01/10	-	HPU#22 – 25/05 HPU#24 – 30/06	HPU#10 – 03/09 HPU#21 – 31/01	HPU #23 – 16/01 HPU #11 – 02/04	HPU #8 – 05/04 HPU #6 – 24/12
Kremenchuk HPP	-	-	-	HPU#2 – 10/07	-	-	HPU #3 - 29/11
Dniprodzerzhynsk HPP	HPU #4 - 30/11	-	HPU#8 – 31/03	HPU#7 – 13/10	-	HPU #5 – 22/12	-

Dnipro HPP	-	-	-	HPU#15 – 23/07	-	-	HPU #13 - 27/02
Kakhovka HPP	-	HPU # 1 - 01/04	HPU#5 – 28/04	HPU#6 – 25/12	-	-	-

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

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

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

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

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

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

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

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 02).

3.5 Revision of monitoring plan (99-100)

Not applicable.
The monitoring plan of the project was not revised.

3.6 Data management (101)

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

The implementation of data collection procedures is in accordance with the monitoring plan, including the quality control and quality assurance procedures. These procedures are mentioned in the section “References” of this report.

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

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

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

The identified areas of concern as to the data management, project participants responses and Bureau Veritas Certification’s conclusions are described in Appendix A to this report (refer to CAR 03, CL 01, CL 02).

3.7 Verification regarding programmes of activities (102-110)

Not applicable

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the periodic verification of the “UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine” in Ukraine, which applies the JI specific approach. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the 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 the World Bank 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 indicated in the final PDD version 08. 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 01.1 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as described in the

approved project design document and the determined changes (described in the Verification Report by Bureau Veritas Certification No. UKRAINE-ver/0023/2008 dated 11/04/2011) occurred during project implementation. 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 01.01.2012 to 31.12.2012

Baseline emissions	:	175235	tonnes of CO2 equivalent
Project emissions	:	0	tonnes of CO2 equivalent
Emission Reductions	:	175235	tonnes of CO2 equivalent

5 REFERENCES

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

/1/ Monitoring Report "UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine" version 01.0 dated 26 of April 2013
/2/ Monitoring Report "UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine" version 01.1 dated 10 of June 2013
/3/ PDD "UkrHydroEnergo (UHE) hydropower rehabilitation project in Ukraine", version 08 dated 04/02/2010
/4/ Determination Report by SGS United Kingdom Ltd. No. JI.VAL.0040 "UkrHydroEnergo (UHE) hydropower rehabilitation project in Ukraine" dated 14/07/2010
/5/ Verification Report by Bureau Veritas Certification No. UKRAINE-ver/0023/2008 "UkrHydroEnergo (UHE) Hydropower Rehabilitation Project in Ukraine" dated 11/04/2011.
/6/ Letter of Approval # 5633/10/3-10 Issued by the Ministry of Environmental Protection of Ukraine, dated 18.05.2007
/7/ Declaration of Approval Issued by the Netherlands` Ministry of Economic Affairs dated 28.06.2007

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

/1/ Filiation «Dnipro HPP» of PJSC «UkrHydroEnergo». Letter on information №13/710 dated 16.04.2013
/2/ Filiation «Dnipro HPP» of PJSC «UkrHydroEnergo». Direction №10 dated 29.03.2012
/3/ Statement of putting into operation of HPU №13 at Dnipro HPP dated 18.04.12
/4/ Protocol №206 dated 18.05.12 of electric power meter verification A180RAL-P4G-DW-4 Reg.№01184639
/5/ Protocol №205 dated 18.05.12 of electric power meter verification A180RAL-P4G-DW-4 Reg.№01184630
/6/ Protocol №277 dated 27.06.12 of electric power meter verification A180RAL-P4G-DW-3 Reg.№01184604
/7/ Protocol №276 dated 27.06.12 of electric power meter verification A180RAL-P4G-DW-3 Reg.№01184589
/8/ Letter on results of Dnipro HPP for January 2012
/9/ Statement on water flow in January 2012 for electric power generation at Dnipro HPP dated 01.02.12

/10/ Statement on water flow in February 2012 for electric power generation at Dnipro HPP dated dated 01.03.12
/11/ Letter on results of Dnipro HPP operation for February 2012
/12/ Letter on results of Dnipro HPP operation for March 2012
/13/ Letter on results of Dnipro HPP operation for April 2012
/14/ Letter on results of Dnipro HPP operation for May 2012
/15/ Letter on results of Dnipro HPP operation for June 2012
/16/ Letter on results of Dnipro HPP operation for July 2012
/17/ Letter on results of Dnipro HPP operation for August 2012
/18/ Letter on results of Dnipro HPP operation for September 2012
/19/ Letter on results of Dnipro HPP operation for October 2012
/20/ Letter on results of Dnipro HPP operation for November 2012
/21/ Letter on results of Dnipro HPP operation for December 2012
/22/ Photo. Electronic database of water accounting. Dnipro HPP
/23/ Daily record for 23.05.13
/24/ Form ПЭ-1. Statement on electricity generation at Dnipro HPP for 01.01.2013
/25/ Photo. Electric power meter PECA 301 Reg.№9288-187
/26/ Photo. Electric power meter PECA 301 Reg.№9288-154
/27/ Photo. Electric power meter PECA 301 Reg.№9288-182
/28/ Photo. Electric power meter PECA 301 Reg.№2050-20
/29/ Photo. Electric power meter PECA 301 Reg.№9288-193
/30/ Photo. Electric power meter PECA 301 Reg.№9288-195
/31/ Photo. Electric power meter A1802RAL-P4GB-DW4 Reg.№01184573
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/69/ Passport for electric power meter EA05RAL-B-3 Reg.№01044509
/70/ Passport for electric power meter EA05RAL-B-4 Reg.№01057635
/71/ Letter №2-4/222/ф dated 02.02.2012 about water flow for January 2012
/72/ Letter №2-4/429/ф dated 03.03.2012 about water flow for February 2012
/73/ Letter №2-3/628/ф dated 02.04.2012 about water flow for March 2012
/74/ Letter №823 dated 03.05.2012 about water flow for April 2012
/75/ Letter №2-2/1013/ф dated 01.06.2012 about water flow for May 2012
/76/ Letter №2-2/1715/ф dated 02.07.2012 about water flow for June 2012
/77/ Letter №2-3/1443/ф dated 02.08.2012 about water flow for July 2012
/78/ Letter №2-4/1852/ф dated 04.10.2012 about water flow for September 2012
/79/ Letter №2-4/1637/ф dated 04.09.2012 about water flow for August 2012

/80/ Letter №2-2/2085/ф dated 01.11.2012 about water flow for October 2012
/81/ Letter №2-2/2349/ф dated 05.12.2012 about water flow for November 2012
/82/ Letter №2-2/29/ф dated 04.01.2012 about water flow for December 2012
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/127/ Passport for electric power meter A1805RAL-P4GB-DW4 Reg.№01184671
/128/ Passport for electric power meter A1805RAL-P4GB-DW4 Reg.№01184667
/129/ Passport for electric power meter A1805RAL-P4GB-DW4 Reg.№01184673
/130/ Passport for electric power meter A1805RAL-P4GB-DW4 Reg.№01184677

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/ Aleksandr Chupryna – head of OPS, Kyiv HPP
/2/ Viktor Kozyk – wireman, Kyiv HPP.
/3/ Vadym Horbenko – engineer, Kaniv HPP
/4/ Vasyl Siryk – engineer-metrologist, Kaniv HPP
/5/ Uriy Savchenko - Head of manufacturing and technical sector, Dnipro HPP
/6/ Kateryna Mudryk – Engineer, Dnipro HPP
/7/ Volodymyr Laskarevskyi – JI and CDM projects Consultant, Mitsubishi UFJ Morgan Stanley Securities

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 Host Party (Ukraine) and Sponsor Party (The Netherlands). The written project approvals were issued by NFPs of the Parties involved (see chapter 7 References of the Verification Report).	OK	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	Corrective Action Request (CAR) 01.	CAR 01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	Please provide the explanation why rehabilitation of only 28 of 43 planned HPUs was conducted. Will rehabilitation be conducted for other 15 HPUs?		
93	What is the status of operation of the project during the monitoring period?	The project was operational for the whole 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?	Corrective Action Request (CAR) 02. In section 2.1 of the MR it was mistakenly stated the date of the approved PDD is 04/04/2010. Please correct.	CAR 02	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,	Yes. The key factors, e.g. those listed in 23 (b) (i)-(vii) of the DVM check list, 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 for calculating the emission reductions.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	as appropriate?			
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	All data sources used for calculating emission reductions or enhancements of net removals are clearly identified, reliable and transparent	OK	OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	All the emission factors, including default emission factors are used in line with the registered PDD and the determined revisions of the monitoring plan provided in the Verification Report for 2008. In order to calculate the emissions from each fuel type, the most recent submission of the Ukrainian National GHG Inventory was used.	OK	OK
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	Yes, the calculation of emission reductions 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	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?			
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	OK	OK
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	OK	OK
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	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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	OK	OK
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	N/A	OK	OK
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?	Corrective Action Request (CAR) 03. Some values of amount of consumed water and generated electricity are not the same in MR and in the documents provided by the enterprise. Please make the corresponding corrections.	CAR 03	OK
101 (b)	Is the function of the monitoring equipment, including its calibration	Clarification Request (CL) 01. In the MR it is stated that the model of	CL 01	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	status, in order?	electricity meters PECA is 300. At the place of location of the meters PECA 301 is stated. Please clarify this nonconformity.		
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Clarification Request (CL) 02. Please specify the registration numbers for the flow meters at Kremenchuk HPP.	CL 02	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	See CAR 03, CL01, CL 02 above.	OK	OK
Verification regarding programmes of activities (additional elements for assessment)				
102	Is any JPA that has not been added to the JI PoA not verified?	N/A	OK	OK
103	Is the verification based on the monitoring reports of all JPAs to be verified?	N/A	OK	OK
103	Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA?	N/A	OK	OK
104	Does the monitoring period not overlap with previous monitoring	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	periods?			
105	If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?	N/A	OK	OK
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	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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 − 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	OK	OK
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	N/A	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification?			
109	Is the sampling plan available for submission to the secretariat for the JISC ex ante assessment? (Optional)	N/A	OK	OK
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	OK	OK

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarification and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
Corrective Action Request (CAR) 01. Please provide the explanation why rehabilitation of only 28 of 43 planned HPUs was conducted. Will rehabilitation be conducted for other 15 HPUs?	92	The delay in the reconstruction of HPU from 2006 to 2013 occurred due to the following reasons: - Shortage of funding on UHE side in the period 2009 - 2012; - Delays in the supply of equipment by manufacturers; - The need for additional rehabilitation works identified at several HPUs, mainly due to the extensive operational time of the equipment. Rehabilitation will be conducted for remaining 15 HPUs.	Issue is closed
Corrective Action Request (CAR) 02. In section 2.1 of the MR it was mistakenly stated the date of the approved PDD is 04/04/2010. Please correct.	94	The corresponding corrections were made in the updated Monitoring Report, ver.01.1.	CAR is closed

Corrective Action Request (CAR) 03. Some values of amount of consumed water and generated electricity are not the same in MR and in the documents provided by the enterprise. Please make the corresponding corrections.	101 (a)	The identified discrepancies are a result of typos in the process of data collection and processing. The data provided to the AIE as part of the verification process is the final data after corrections. Therefore, no corrections to the monitoring report are needed. The details are provided below. The monthly reports that the AIE reviewed during the site visit contain only preliminary data and are prepared as part of the continuous reporting requirements for each HPP to the UHE headquarters. These reports are not corrected subsequently. At the same time, at the stage of preparation of the data for verification, the data is analyzed, and subsequently corrected after approval from UHE. These corrected data are used for the final calculations as presented in the attached letters from each of the six HPPs.	CAR is closed

Clarification Request (CL) 01. In the MR it is stated that the model of electricity meters PECA is 300. At the place of location of the meters PECA 301 is stated. Please clarify this nonconformity.	101 (b)	There was a typographical error in the monitoring report. The correct meter model is PECA-301. The corrections are reflected in the monitoring report.	Issue is closed
Clarification Request (CL) 02. Please specify the registration numbers for the flow meters at Kremenchuk HPP.	101 (c)	Registration numbers for the flow meters at Kremenchuk HPP are: Upper level, Hydrostatic system JUMO D76, #031 Lower level, Hydrostatic system JUMO D76, #032 The corresponding corrections were made in the updated Monitoring Report, ver. 01.1.	Issue is closed