



VERIFICATION REPORT

SREDEN ISKAR CASCADE HPP PORTFOLIO PROJECT IN BULGARIA

(ITL Project ID: 0063)

Verification Period:
1 January 2012 to 31 October 2012

REPORT No. 2012-9711

REVISION No. 01

DET NORSKE VERITAS

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Date of first issue: 16 November 2012	Project No.: PRJC-426421-2012-CCS-CZE
Approved by: Edwin Aalders	Organisational unit: DNV KEMA Energy & Sustainability Accredited Climate Change Services
Client: Vez Svoghe OOD	Client ref.: Plamen Dilkov

Summary:

DNV Climate Change Services AS (DNV) has performed the verification of the emission reductions reported for the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” (ITL Project ID 0063) for the period 1 January 2012 to 31 October 2012.

In our opinion, the GHG emission reductions reported for the project in the monitoring report (revision 01) of 16 November 2012 are fairly stated.

The GHG emission reductions were calculated correctly on the basis of the approved CDM monitoring methodology ACM0002 (version 07) and the monitoring plan contained in the Project Design Document of 15 October 2007.

DNV Climate Change AS is able to verify that the emission reductions from the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” during the period 1 January 2012 to 31 October 2012 amount to 21 506 tonnes of CO₂ equivalent.

Report No.: 2012-9711	Subject Group: Environment	Indexing terms	
Report title: Sreden Iskar Cascade HPP Portfolio Project in Bulgaria		Key words Climate Change Kyoto Protocol Validation Join Implementation Mechanism	Service Area Verification Market Sector Energy Industry
Work carried out by: Lumír Němeček		<input checked="" type="checkbox"/> No distribution without permission from the client or responsible organisational unit <input type="checkbox"/> free distribution within DNV after 3 years <input type="checkbox"/> Strictly confidential <input type="checkbox"/> Unrestricted distribution	
Work verified by: Astakala Vidyacharan			
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[Appendix A Corrective action requests, clarification requests and forward action requests](#)



Abbreviations

AIE	Accredited Independent Entity
CAR	Corrective Action Request
CEF	Carbon Emission Factor
CL	Clarification Request
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
DNV	Det Norske Veritas
DNA	Designated National Authority
ERU	Emission Reduction Units(s)
FAR	Forward Action Request
GHG	Greenhouse gas(es)
HPP	Hydro Power Plant
IPCC	Intergovernmental Panel on Climate Change
JI	Joint Implementation
MP	Monitoring Plan
MoEW	Ministry of Environment and Water
MVP	Monitoring and Verification Plan
NGO	Non-governmental Organisation
NEK	National Elektricheska Kompania (National Electricity Company)
ODA	Official Development Assistance
PPA	Power Purchase Agreement
AIE	Accredited Independent Entity



1 INTRODUCTION

Vež Svoghe OOD has commissioned DNV Climate Change Services AS (DNV) to carry out the verification of the emission reductions reported for the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” (the project) in the period 1 January 2012 to 31 October 2012. This report contains the findings from the verification and a verification statement for the certified emission reductions.

1.1 Objective

Verification is the periodic independent review and *ex post* determination by an Accredited Independent Entity (AIE) of the monitored reductions in GHG emissions that have occurred as a result of a Joint Implementation (JI) project activity during a defined monitoring period.

The objective of this verification was to verify the emission reductions reported for the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” for the period 1 January 2012 to 31 October 2012.

DNV is an Independent Entity accredited by the Joint Implementation Supervisory Committee (JISC) for all sectoral scopes.

1.2 Scope

The scope of the verification is:

- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that reported emission reductions are complete and accurate in order to be certified.

1.3 Description of the Project Activity

Project Parties:	<i>Bulgaria (Host) and Netherlands (Sponsor Party)</i>
Title of project activity:	<i>Sreden Iskar Cascade HPP Portfolio Project in Bulgaria</i>
ITL Project ID:	0063
CDM baseline and monitoring methodology:	<i>ACM0002 (version 07)</i>
Project Entity:	<i>Vež Svoghe OOD, Porsche Center, Christopher Columbus Blvd, 4, 1000 Sofia, Bulgaria and EBRD, One Exchange Square London EC2A 2JN, United Kingdom</i>



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Location of the project activity: *Individual planned stages are placed on the river Iskar near Sofia, Bulgaria*

Project's crediting period: *1 July 2008 to 31 December 2012*

Period verified in this verification: *1 January 2012 to 31 October 2012*

The project involves the installation and commissioning of 9 small run-of-the-river hydro power plants on the river Iskar near the town of Sofia in Bulgaria. The total installed capacity of the project is 25.65 MW. The project is expected to generate 415.5 GWh of electricity over the entire crediting period starting from 1 January 2008 and extending to 31 December 2012 and it is estimated that the expected reduction is on average 74 194 tCO₂ emissions per year by displacing electricity produced by existing and upcoming fossil fuel fired power plants connected to the electrical grid.

Construction of the first two HPPs started in July 2006 /1//30//31/. The first HPP (Lakatnik) was commissioned on 2 July 2008 /13/ and the second HPP (Svrazhen) was commissioned in May 2009 /14/, DNV checked and confirmed these dates with the permits /13//14/. The Tzerovo HPP was commissioned in April 2012 /15/. The next two power plants (Opletnia and Prokopanik) are still under construction /11//12/. The statuses of plants under construction were confirmed during the site visit. The scheduled sequence in the PDD has been changed and the same is presented in the table below:

Phase	HPP	Starting date of the operation	Planned starting date of operation in the PDD /1/
I.	Lakatnik	July 2008	January 2008
	Svrazhen	May 2009	January 2008
II.	Tzerovo	April 2012	July 2011
	Opletnia	under construction – should be finish in 2013	April 2010
	Prokopanik	under construction – should be finish in 2013	July 2011
III.	Gavrovnitsa	Commissioning is planned in 2015	April 2010
	Levitshe	Commissioning is planned in 2015	April 2010
	Bov-Sud	Commissioning is planned in 2015	July 2011
	Bov-Nord	Commissioning is planned in 2015	July 2011

The PDD has been prepared when the project was still at preliminary stage; therefore the time schedule has been later modified according to effective receipt of authorizations. The latest time schedule and activities plan is quoted in the Detailed Investment Plan (DIP), a document Vez Svoghe has been requested to prepare by EBRD. The DIP, dated September 2010, follows the document "Industrial and Economic-Financial Plan in relation to the Construction of Nine Hydro-Electric Power Stations on the River Iskar in the Municipality of Svoghe in Bulgaria" prepared by Petrolvilla Group Energia e Ambiente and dated 18th May 2007.

1.4 Methodology for Determining Emission Reductions

The emission reductions are calculated as the difference between baseline emissions and project emissions and leakages. The baseline emissions are calculated as the product of the net



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electricity generation supplied to the Bulgarian grid and the emission factor for Bulgarian grid established by Ministry of Environment and Water of Bulgaria (MoEW). Hereinto, project emissions and leakages for the project are considered to be zero as per the methodology ACM0002 (version 07) /35/.

The emission factor was calculated *ex-ante* by NEK for Bulgarian government and it was supposed in the registered PDD that the emission factor will be monitored annually *ex-post*, renewed by MoEW of Bulgaria. MoEW have not renewed the emission factor yet and MoEW confirmed the validity of the old calculation and its applicability for this monitoring period /18/. Thus the values presented in Baseline Carbon Emission Factor of Bulgarian Electricity and Heat Power System (NEK “Study”) /28/ are still valid for this project.

The delivered electricity of the project is monitored continuously for each plant and sum of delivered amounts is total value of delivered electricity to the grid.

2 METHODOLOGY

DNV has assessed and determined that the implementation and operation of the project activity, and the steps taken to report emission reductions comply with JI criteria and relevant guidance provided by the JI Supervisory Committee.

The assessment involved a desk review of relevant documentation as well as an on-site visit(s).

The verification of the emission reductions has assessed all factors and issues that constitute the basis for emission reductions from the project. These include:

- i) Records related to measuring quantity of delivered electricity to grid /19//20/;
- ii) Emission factor issued by NEK (0.833 tCO₂/MWh for 2012) /18//28/;
- iii) Calculation of the baseline emissions based on the determined and validated baseline emission factor /3/;
- iv) Records on validation and/or calibration of the used measuring equipment, and calculation software /5//6//7//22/

Verification team

Role	Last Name	First Name	Country	Type of involvement					
				Desk review	Site visit	Reporting	Supervision of work	Technical review	TA1.2 competence
Team leader (JI verifier)	Němeček	Lumír	Czech Republic	✓	✓	✓	✓		✓
Technical reviewer	Astakala	Vidyacharan	India					✓	✓

**Duration of verification**

Preparations: 7 November 2012
On-site verification: From 13 November 2012 to 14 November 2012
Reporting, calculation checks and QA/QC: From 15 November 2012 to 2 December 2012

2.1 Review of Documentation

The monitoring report /3/ version 1 dated 7 November 2012 was the main document for review during the desk review. This report /3/ included all invoices from HPPs Lakatnik Svrazhen and Tzerovo as well as audit report from 31 October 2012, and a confirmation e-mail dated 21 December 2011 /18/ from Kiril Bankov (expert of Climate Change Directorate of MoEW) regarding the applicability of the emission factor of the Bulgarian Electricity Power System for the year 2012 and the “NEK Study” /29/ for this monitoring period.

Supporting documents that were checked included the project PDD /1/ dated 15 October 2007, monitoring procedures of Vez Svoghe for the project /2/, the “NEK study” for the calculation of the grid emission factor for the Bulgarian Electricity Power System /29/. The previous DNV reports /30//31/ (determination and verification reports from 1st, 2nd, 3rd and 4th verification) were also checked for the purpose of this monitoring period desk review.

Operation records such as protocols from electricity meter readings /19//20/,/21/ calibration protocols /5//6/,/7/ training records /16/, construction and other obligatory permits /8/~15/,/23/~25/ as well as the power purchase agreement (PPA) /4/ were provided during the site visit.

Note:

At the moment the electricity produced by the plant of Tzerovo is purchased by CEZ on the basis of the general purchase agreement /4/. The specific contract for this plant is currently in stand-by because on September 18th, 2012 a new tax came into force with retroactive effect.

The amount due is quantified as a percentage of the tariff and it varies depending on the source: 1% for biomass plants; 5% for hydroelectric, 10% of the tariff for wind power plants and between 1% and 39% for photovoltaic plants.

The initiative of the government aroused many reactions, even at international level, highlighted by the initiative of the ambassadors of 13 European countries plus China and Korea, who expressed, in a letter to the Minister of Economy, Energy and Tourism, Delyan Dobrev, their strong concerns about the effects on the viability and sustainability of investments already on going or planned, and for damage to the country's image in the eyes of foreign investors. Moreover, the representatives of Bulgarian industry associations are going to report to the European Commission that they consider this tax as a real state aid in favour of distribution companies.

Due to this on-going situation, Vez Svoghe is constantly monitoring the development of negotiations. The specific contract will follow when an agreement will be reached.

Information and formulas provided in the monitoring report were compared with PDD and electricity sales receipts. The comparison confirmed that used formulas and values are correctly applied.



2.2 Site Visits

The site visit was conducted by Lumír Němeček of DNV on 13 and 14 November 2012. All hydropower plants operating (Lakatnik, Svrazhen and Tzerovo) and under construction (Opletnia and Prokopanik) were visited. Final review of documents and procedures for archiving of data was done in the central office of Vez Svoghe in Sofia. During the site visit, representative of DNV has interviewed key personnel of the plants Lakatnik and Svrazhen as well as project manager and project's responsible people /39//40//41//42/. The status of operating plants and the plants in construction has been verified as situation described in chapter 1.3.

The data flow is as follow, the net electricity delivered to the grid is read and recorded in a protocol for electricity meter reading /19//20/ /21/ every month jointly by responsible persons of ČEZ and Vez Svoghe. These protocols are the basis for invoicing. The invoiced amount is recorded in Vez Svoghe's electronic calculation database for the project. The calculation as well as other folders related to project is stored on Vez Svoghe server and protected by password.

Calibration procedures are in compliance with monitoring requirement included in the PDD /1/ and PPA /4/

The key personnel interviewed are summarized in the table below:

Name	Organization and position	Topic of interview
Patrick Pauletto /40/	Administrative director, Vez Svoghe AD, Bulgaria.	QA/QC of the project, Project management, plants visit, construction sites presentation
Tsalo Parvanov /42/	Operator, Vez Svoghe AD, Bulgaria.	Operational reporting, logbooks, SCADA system, plants visit, monitoring equipment
Anton Milchev /41/	Chief Civil Engineer, Vez Svoghe AD, Bulgaria.	Information about schedule of construction works, construction sites presentation, documentation of permits
Chiara di Silvestro /39/	Technical Consultant, MWH S.p.A, Italia.	QA/QC of the project, Project management, site visit

2.3 Closing out of verification findings

The objective of this phase of the verification was to resolve any issues which needed be clarified prior to DNV's conclusion that i) the project activity has been implemented and operated in accordance with the PDD, ii) the monitoring plan complies with the monitoring methodology and the actual monitoring complies with the monitoring plan and iii) the data and calculation of GHG emission reductions are correct.

A corrective action request (CAR) is issued, where:

- i. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- ii. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;



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- iii. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A clarification request (CL) shall be raised if information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

A forward action request (FAR) is issued for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

One CAR related to operational data and two CLs related to power purchase agreement and, difference between electricity production and invoiced data have been identified. All issues were properly solved by project participant.



3 VERIFICATION FINDINGS

This section summarises the findings from the verification of the emission reductions reported for the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” for the period 1 January 2012 to 31 October 2012.

3.1 Remaining Issues, CARs, FARs from Previous Validation or Verification

No remaining/open issues from the previous verification were identified /30/.

3.2 Project approval by parties included

Netherlands’ Ministry of Economic Affairs issued the Approval of Sreden Iskar Cascade HPP Portfolio Project in Bulgaria as JI project on 28 November 2007 /37/.

3.3 Project Implementation

The project is delayed against its implementation schedule as originally mentioned in the PDD /1/. Three power plants, only Lakatnik, Svrazhen and Tzerovo, are in operation during this monitoring period. The project second phase started with the construction of Tzerovo power plant on 8 June 2010 /23/. Opletnia started later in October 2010 /24/ and Prokopanik started in January 2012 /25/. Third phase is expected to start in 2013.

The actual operation of the project activity I phase is in line with the registered PDD /1/ however construction phases II and II are delayed and thus these phases are not in full operation yet. The details have also been earlier presented in Chapter 1.3.

Electricity was generated and supplied to the Bulgarian grid. The net generated electricity of 25 818 MWh was supplied to the grid during the monitored period from 1 January 2012 to 31 October 2012.

Lakatnik, Svrazhen and Tzerovo hydropower plants generate electricity however the request from the grid is lower than it was estimated for these plants and year in the PDD /1/. The total emission reductions reported for the period 1 January 2012 to 31 October 2012 was verified to be 21 506 tCO₂e. The emission reductions are lower than that the emission reduction of 102 566 tCO₂e predicted in the registered PDD /1/. The lower emission reductions for the verification period are attributed to the lower rainfall, it has also to be kept in mind that the efficiency of the turbines of Lakatnik and Svrajen has a severe drop at low flow rates - this is confirmed by the OSC study dated 14th July 2010 /38/ as well as due to delays of operational dates against PDD construction schedule (all hydropower plants should have been in operation in 2011 and generate electricity, however it was not achieved as verified during the site visit).

The data presented in the monitoring report is in compliance with the information in the PDD /1/ except the grid emission factor that was not determined *ex-post* as stated here. As stated in PDD on page 25, “the baseline grid emission factors will be monitored using the document “Baseline Study of Joint Implementation projects in the Bulgarian energy sector” performed annually by the NEK” /29/. However, DNV confirmed directly from the MoEW /18/ that this baseline study was not updated and is still valid for JI projects in Bulgaria. Hence, the



emission factor of this study published on the web sites of the Ministry is the most recent baseline emission factor determined for Bulgaria. DNV also confirms that the necessary data to recalculate the emission factor based on more recent data is not publicly available.

Project owner updated used version of methodology ACM0002 (version 07) /35/ in its monitoring procedures /2/ and in the monitoring report /3/ to version 7 against version 6 used in the PDD /1/. As the registered PDD still refers to version 6, DNV has assessed difference from version 6 to version 7 /35/ and confirms that the provided documents following version 7 fulfills requirements of version 6. The version update does not have any influence to emission reduction calculation. Emission factor calculation is still in the deviation, as is presented below. This deviation is based on confirmation of MoEW /18/ about validity of original NEK study /28/ presented in the PDD /1/.

3.4 Compliance with monitoring plan

No changes have been realized in monitoring system from previous verification site visit. The monitoring procedure is described in the monitoring report /3/ and it was verified as correct. The electricity meters are owned by ČEZ and placed close by the hydropower plants. The monitoring is realized continuously. The values of monthly net electricity supplied to the grid are recorded to protocols /19//20//21/, which are provided by ČEZ employee together with responsible person from Vez Svoghe. The correctness of the net electricity supplied to the grid is confirmed in writing by both parties.

The values are compared with data provided by SCADA system, which stored electricity measurement from devices owned by Vez Svoghe. Electricity meters installed in hydropower plants are not included in the monitoring plan and they are used for internal cross checking only. The net electricity supplied to the grid was evidenced by invoices /3/ /17/ and the protocols /19//20//21/, which are mentioned above.

The electricity meters owned by ČEZ are calibrated according to local legislation /28/ and PPA /4/. The electricity meter of HPP Svrazhen had delay with calibration against internally set 2 years period because the legal rules newly set the period as 4 years /28/. As the power purchase agreement /4/ contains paragraph related to calibration: *“Inspections of commercial metering devices shall be made at the request of the user, the end supplier or on the electricity distribution company. Electricity Distribution Company shall be obliged to check the connection with calibrated standard within five (5) days of the request. Reading of the commercial metering devices shall not be considered for review”* and does not contain any calibration interval, the situation is correct under local legislation /28/, however the period internally set by project owner has been exceed. Calibration protocol from 15 February 2012 /6/ confirmed proper function of the electricity meter of Svrazhen and is valid for 4 years. Thus its metering in period from 10 July 2011 to 15 February 2012 could be accepted as correct. The detailed information is provided in following tables. The laboratory that calibrated the devices has authorization for calibration /22/.

The grid emission factor did not change according to decision of Bulgarian MoEW /18/ as was presented in chapter above and thus it was not object of monitoring.

The metering system owned by ČEZ meets requirements of the monitoring plan and it is in accordance with ACM0002 methodology version 7 /35/.



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	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD):	Electricity delivered to the grid - Lakatnik
Measuring frequency:	Continuously measured.
Reporting frequency:	Every month.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes.
Type of monitoring equipment:	Actaris SL761C071 (model SL 7000), serial No. 36039153, bidirectional. The meter is owned by CEZ and is located on transmission connection to the grid
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	No meter accuracy is defined in the registered PDD. The accuracy of the meter is 0.5s as verified by DNV through visual inspection of the meter during the site visit. The meter accuracy represents a good monitoring practice and additionally it is according to local Commercial Code and metrology rules /28/ since it is invoicing measurement.
Calibration frequency /interval:	Every two years according to the project owner internal rules. newly every 4 years according to the Metrology rules of Bulgaria /28/
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	No calibration frequency is defined in the registered PDD. The statement in the Monitoring plan is that calibration will be according to metering legislation and this corresponds with information provided on site /4//28/ The project owner is not the owner of the metering device and access to monitoring device is possible only for view. The checking of the meter is done every month, when in last day the revenue meter is checked jointly with the grid company. The calibration frequency of once every 2 years (and newly 4 years /28/) is used by this project meets the requirement /4/ and represents a good monitoring practice in Bulgaria.
Company performing the calibration:	Otdel Merene – CE . CEZ – authorized by State Agency for Metrology and Technical Supervision /22/
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	The meter was calibrated on: • 26 January 2011 /5/, no validity period is



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	<p>indicated in the calibration protocol (The calibration frequency of once every 2 years and newly 4 years /28/)</p> <ul style="list-style-type: none"> • 15 February 2012 valid for 4 years /28/)
If applicable, has the reported data been cross-checked with other available data?	The data has been cross-checked with values from the electricity meter owned by the project owner/3//17/
How were the values in the monitoring report verified?	The values from the monthly electricity invoices /3//17/ were cross-checked with monthly protocols /19/
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The meter is not owned electricity meter. Thus the data management is realized only from monthly reading of delivered electricity amount to the final calculation. The management ensure correct calculation of emission reduction
In case project participants have temporarily not monitored the parameter, have adequate and conservative assumptions been applied for missing data?	NA.

	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD):	Electricity delivered to the grid – Svrazhen.
Measuring frequency:	Continuously measured.
Reporting frequency:	Every month.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes.
Type of monitoring equipment:	Actaris SL761C071 (model SL 7000), Serial No.36039199,bidirectional The meter is owned by CEZ and is located at transmission connection to the grid
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	No meter accuracy is defined in the registered PDD. The accuracy of the meter is 0.5s as verified by DNV through visual inspection during the site visit, which represents a good monitoring practice and additionally it is according to local Commercial Code and metrology rules /28/ since it is invoicing measurement.
Calibration frequency /interval:	Every two years according to internal rules, newly every 4 years according to the Metrology



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	rules of Bulgaria /28/
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	No calibration frequency is defined in the registered PDD. The statement in the monitoring plan is that calibration will be according to metering legislation and this corresponds with information /4/ /28/ provided on site. The project owner is not the owner of the metering device and access to monitoring device is possible only for view. The checking of the meter is done every month, when in last day the revenue meter is checked jointly with the grid company. The calibration frequency of once per 2 years (and newly 4 years) used by this project meets the requirement /4/ and represents a good monitoring practice in Bulgaria.
Company performing the calibration:	Otdel Merene – CEZ – authorized by State Agency for Metrology and Technical Supervision /22/
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes. The meter was calibrated on: <ul style="list-style-type: none"> • 9 June 2009 /6/ no validity period is indicated in the calibration protocol. • 15 February 2012 /6/. This calibration protocol appears to be delay against previously internally set calibration of 2 years period .The situation is in compliance with local legislation /28/ and new calibration protocol from 15 February 2012 confirmed proper function of the electricity meter of HPP Svrazhen, the measurement in the period from 9 July 2011 till 15 February 2012 can be accepted as correct. Further the period was set by project proponent and it is not requested in the PDD even any other local requirements /28/. Newly issued official calibration period for this type of the measurement devices is set 4 years according to Order № A-441/13.10.2011 /28/ Also both calibration protocols confirm the proper functioning of the meter.
If applicable, has the reported data been cross-checked with other available data?	The data has been cross-checked with values from the electricity meter owned by the project owner/3//17/



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How were the values in the monitoring report verified?	The values from the monthly electricity invoices /3//17/ were cross-checked with monthly protocols /20/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The project participants do not own the electricity meter. Thus the data management is realized from monthly reading of delivered electricity amount to the final calculation. The management ensure correct calculation of emission reduction.
In case project participants have temporarily not monitored the parameter, have adequate and conservative assumptions been applied for missing data?	NA.

	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD):	Electricity delivered to the grid – Tzerovo.
Measuring frequency:	Continuously measured.
Reporting frequency:	Every month.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes.
Type of monitoring equipment:	Actaris SL761B071 (model SL 7000), Serial No.62016323,bidirectional The meter is owned by CEZ and is located at transmission connection to the grid
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	No meter accuracy is defined in the registered PDD. The accuracy of the meter is 0.5s as verified by DNV through visual inspection during the site visit, which represents a good monitoring practice and additionally it is according to local Commercial Code and metrology rules /28/ since it is invoicing measurement.
Calibration frequency /interval:	Every two years according to internal rules, newly every 4 years according to the Metrology rules of Bulgaria /28/
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	No calibration frequency is defined in the registered PDD. The statement in the monitoring plan is that calibration will be according to metering legislation and this corresponds with information /4//28/provided on site. The project owner is not the owner of the metering device



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	and access to monitoring device is possible only for view. The checking of the meter is done every month, when in last day the revenue meter is checked jointly with the grid company. The calibration frequency of once per 2 years (and newly 4 years) used by this project meets the requirement /4/ and represents a good monitoring practice in Bulgaria.
Company performing the calibration:	Otdel Merene – CEZ – authorized by State Agency for Metrology and Technical Supervision /22/
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes.
Is(are) calibration(s) valid for the whole reporting period?	Yes. The meter was calibrated on: <ul style="list-style-type: none"> • 30 March 2012 /7/. Newly issued official calibration period for this type of the measurement devices is set 4 years according to Order № A-441/13.10.2011 /28/ Calibration protocols confirm the proper functioning of the meter.
If applicable, has the reported data been cross-checked with other available data?	The data has been cross-checked with values from the electricity meter owned by the project owner/3//17/
How were the values in the monitoring report verified?	The values from the monthly electricity invoices /3//17/ were cross-checked with monthly protocols /21/.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The project participants do not own the electricity meter. Thus the data management is realized from monthly reading of delivered electricity amount to the final calculation. The management ensure correct calculation of emission reduction.
In case project participants have temporarily not monitored the parameter, have adequate and conservative assumptions been applied for missing data?	NA.

3.5 Accuracy of Emission Reduction Calculations

The emissions reduction was correctly calculated during the reporting period with the validated calculation formulae and baseline emission factors given in the PDD /1/.

The emission factor was derived from the “Baseline Study of Joint Implementation projects in the Bulgarian energy sector” issued in May 2005 /29/ by NEK. The study determined an operating margin emission factor by applying a model to forecast the emission factor based on



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a dispatch analysis applying actual generation and fuel consumption data from 2000-2004. The model takes into account new capacities.

It must be noted, as in previous DNV verification reports /30/, that the approach selected by NEK in the “Baseline Study of Joint Implementation projects in the Bulgarian energy sector” is not in full compliance with the requirements of ACM0002 (version 07) to which the monitoring plan in the final PDD refers to /1/. The emission factor determined for the years 2006-2012 and thus the emission factor for 2012 selected by the project participants for this monitoring period i) is based on a model and not actual generation and fuel consumption data for these years and ii) represents the operating margin only although considering likely future capacities in the dispatch analysis model applied.

Nonetheless, the use of model data instead of actual generation and fuel consumption data is in DNV’s opinion acceptable as the model uses conservative assumptions and the Bulgarian Ministry of Environment and Water confirmed (e-mail from 6 November 2012 /18/) that the baseline study published in 2005 was not updated and is still valid for JI projects in Bulgaria and year 2012 /29/.

In the context of the project activity, DNV finds it also acceptable to not consider the build margin and only future capacity additions in the dispatch analysis model applied to estimate the operating margin emission factor. Due to the small generation of the project, it is reasonable to assume that the project will not have any effect on other power sector investments /32/ and thus the build margin. Moreover, in Bulgaria, like in many Eastern European countries, the number of new plants in recent years is also very low, given the decrease in electricity demand /32/.

The emission factor applied for 2012 year is 0.833 tCO₂/MWh /28/.

The average load factor for this period is 44.94% for Lakatnik hydropower plant, 36.98% for Svrazhen hydropower plant and 25.79 for Tzerovo hydropower plant. Plant load factor for individual months are listed bellows in the tables as well as electricity production and emission reductions.

DNV crosschecked the amounts of electricity with invoices /3//17/ and with production protocols /19//20//21/ and moreover performed the load factor checking calculations. DNV confirms that the load factors varied for different months due to river water flow /27/ (the rainfall was lower in 2012 confirmed during the site visit with Vez Svoghe AD representatives /40/-/42/) and machinery operation conditions (drop at the low flow rate of turbine /38/). The power stations invoices from January 2012 to October 2012 /3//17/ were checked and cross checked by protocols /19//20//21/during the site visit.

Lakatnik hydropower plant:

Period	Max possible Power Generated (MWh)	Net Power Supplied (MWh)	Load Factor	Emission Reductions (tCO ₂)
2012				
January 2012	2 157.60	689.67	31.96%	574.50
February 2012	2 018.40	774.24	38.36%	644.94
March 2012	2 157.60	1 599.50	74.13%	1 332.38



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April 2012	2 088.00	1 965.18	94.12%	1 636.99
May 2012	2 157.60	1 449.05	67.16%	1 207.06
June 2012	2 088.00	1 258.16	60.26%	1 048.05
July 2012	2 157.60	708.07	32.82%	589.82
August 2012	2 157.60	463.99	21.50%	386.50
September 2012	2 088.00	223.29	10.69%	186.00
October 2012	2 157.60	407.85	18.90%	339.74
Total	21 228.00	9 538.99	-	7 945.98

Svrazhen hydropower plant:

Period	Max possible Power Generated (MWh)	Net Power Supplied (MWh)	Load Factor	Emission Reductions (tCO ₂)
2012				
January 2012	2 648.64	776.01	29.30%	646.42
February 2012	2 477.76	953.18	38.47%	794.00
March 2012	2 648.64	2 050.06	77.40%	1 707.70
April 2012	2 563.20	2 233.07	87.12%	1 860.15
May 2012	2 648.64	1 698.95	64.14%	1 415.22
June 2012	2 563.20	1 497.59	58.43%	1 247.49
July 2012	2 648.64	821.22	31.01%	684.08
August 2012	2 648.64	574.97	21.71%	478.95
September 2012	2 563.20	418.16	16.31%	348.33
October 2012	2 648.64	541.13	20.43%	450.76
Total	26 059.20	11 564.34	-	9 633.10

Tzerovo hydropower plant:

Period	Max possible Power Generated (MWh)	Net Power Supplied (MWh)	Load Factor	Emission Reductions (tCO ₂)
2012				
April 2012	2 563.20	173,73	6,78	144,71
May 2012	2 648.64	1 201,03	45,35	1 000,46
June 2012	2 563.20	1 139.70	44.46%	949.37
July 2012	2 648.64	709.78	26.80%	591.24
August 2012	2 648.64	541.85	20.46%	451.36
September 2012	2 563.20	442.90	17.28%	368.94
October 2012	2 648.64	505.91	19.10%	421.42
Total	18 284.16	4 714.88	-	3 927.50

**Summary:**

Year	Hydro Power Plant	Annual energy generation (MWh) (Rounded values)	Carbon Emission Factor (tCO₂/MWh)	Amount of achieved emission reduction (tCO₂) (Rounded values)
2012	Lakatnik (Until 31 October)	9 539	0.833	7 946
2012	Svrazhen (Until 31 October)	11 564	0.833	9 633
2012	Tzerovo (20th April – 31 October)	4 716 (4 715 invoiced)	0.833	3 928
Total	HPPs	25 818	0.833	21 506

Total emission reduction for the project is 21 506 tCO_{2e}, which represents 47.6% of total emission reductions estimated for 2012 year in the PDD (45 173 tCO_{2e})/1/. Lakatik achieved 51.5% of estimated ERU for this power plant in 2012 as per the PDD /1/ and Svrazhen achieved 55.4% of estimated ERU for this power plant in 2011 as per the PDD /1/. The lower result of these individual plants is resulted by lower water flow as product of low rainfall in 2012 /27/ as well as turbine drop at low flow rate /38/. The significant lower total result for the project is caused by PDD's presumption that all power plants would produce electricity in 2011. The construction of second phase was delayed as described in table in chapter 1 and third phase would be in operation in 2015 only. Thus still, three hydropower plants are for this monitoring period in operation only.

DNV also can confirm that the reductions of anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks reported by project participant are accurate and free of material errors, omissions, or misstatements. DNV verification opinion is based on a reasonable level of assurance by using the materiality thresholds as it is defined in paragraph 4 a) of the Standard for applying the concept of materiality in verifications /36/.

3.6 Quality of Evidence to Determine Emission Reductions

The calculation is based on the quantity of electricity supplied to the grid and the grid emission factor /28/. The net electricity supplied to the grid is measured by calibrated measurement devices and recorded into a protocol /19//20/,/21/ which is signed by representatives of both parties (ČEZ and Vez Svoghe) and this is the basis for the invoice. Invoices are official documents for quantity calculation and they are included in monitoring report for 2012 /3//17/.



3.7 Management System and Quality Assurance

Due to the relatively simple management system requirements for this project, all procedures related to management and operational system were described in the project owner's monitoring procedures /2/. The procedures are fully implemented now. Internal audit has been conducted /3/; two internal auditors have been properly trained /16/. No changes in the management system from previous verifications.



4 VERIFICATION STATEMENT

DNV Climate Change AS (DNV) has performed the verification of the emission reductions that have been reported for the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” (UNFCCC Registration Reference No.BG 2000021/reference number 0063) for the period 1 January 2012 to 31 October 2012.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project.

It is DNV’s responsibility to express an independent verification statement on the reported GHG emission reductions from the project.

DNV conducted the verification on the basis of the CDM monitoring methodology ACM0002 (version 07), the monitoring plan contained in the registered Project Design Document of 15 October 2007 and the monitoring report (revision 01) dated 16 November 2012. The verification included i) checking whether the provisions of the monitoring methodology and the monitoring plan were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

DNV’s verification approach draws on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions of the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” (ITL project ID 0063) for the period 1 January 2012 to 31 October 2012 are fairly stated in the monitoring report (revision 01) dated 16 November 2012 and are accurate and free of material errors, omissions, or misstatements..

The GHG emission reductions were calculated correctly on the basis of the approved CDM baseline and monitoring methodology ACM0002 (version 07) and the monitoring plan contained in the registered PDD of 15 October 2007.

DNV Climate Change AS is able to verify that the emission reductions from the “Sreden Iskar Cascade HPP Portfolio Project in Bulgaria” during the period 1 January 2012 to 31 October 2012 amount to 21 506 tonnes of CO₂ equivalent.

Prague and Oslo, 2 December 2012

Lumír Němeček
JI Verifier
DNV Prague, Czech Republic

Edwin Aalders
Approver,
DNV Climate Change AS



5 REFERENCES

5.1 Documentation provided by the project participants

/1/	MWH Global: PDD – Sreden Iskar Cascade HPPs portfolio Project Rev. 1 dated 8 November 2006, Rev. 2 dated 15 October 2007.
/2/	MWH Global: Sreden Iskar Cascade Hydropower Plants Monitoring Procedures – Final version, 26 February 2010.
/3/	MWH Global: Monitoring report Sreden Iskar Cascade HPPs portfolio Project, dated 7 November 2012 and revision 01 dated 16 November 2012
/4/	ČEZ and VEZ Svoghe: Agreement for purchase of electricity energy No.78 dated 14 July 2008 and its prolongation where is included Svrazhen dated 18 May 2009 and prolongation from 26 April 2010 .Automatically renewed because VEZ Svoghe has not requested for its termination.
/5/	Protocols for electricity measurement provided by ČEZ – Lakatnik: CEZ LABORATORIES BULGARIA EOOD: Calibration Protocols for electricity measurement (provided by ČEZ) – Lakatnik: No. 1000007181 from 26 January 2011
/6/	CEZ LABORATORIES BULGARIA EOOD: Calibration Protocols for electricity measurement (provided by ČEZ) – Svrazhen: No. 1000005961 from 8 June 2009 and No.1000007325 from 15 February 2012
/7/	CEZ LABORATORIES BULGARIA EOOD: Calibration Protocols for electricity measurement (provided by ČEZ) – Tzerovo No. 1000012166 from 30 March 2012
/8/	Water Permit for Lakatnik – No. 100950 dated 16 May 2005 and prolongation by Decision No. 52/04.04.2007 dated 4 April 2007 and No.11140101 dated 18 February 2011 (validity from 4 March 2011 to 16 May 2025)..
/9/	Water Permit for Svrazhen – No. 100949 dated 16 May 2005 and prolongation by Decision No. 51/04.04.2007 dated 4 April 2007 and No.111401021 dated 18 February 2011 (validity from 4 March 2011 to 16 May 2025)..
/10/	Water Permit for Tzerovo – No. 11140103 dated 23 February 2011(valid 9 March 2011 till 20 May 2025)
/11/	Water Permit for Opletnia – No. 11140104 dated 23 February 2011(valid 9 March 2011 till 20 May 2025)
/12/	Water Permit for Prokopanik No. 11140105 dated 23 February 2011 validity 9 March 2011 till 20 May 2025
/13/	Use Permit for Lakatnik No. CT-12-612 2008 of 2 July 2008.
/14/	Use Permit for Svrazhen No. CT-05-518 of 16 May 2009.
/15/	Use Permit for Tzerovo No. CT-05=405 of 20 April 2012
/16/	Certificate of training for internal audits of the monitoring plan of Sreden Iskar Cascade



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	Hydro Power plants for Anton Milchev and Marina Dimitrova, dated 29 October 2008.
/17/	Invoices package for for Lakatnik for Svrazhen for Tzerovo of production til 2012
/18/	Kiril Bankov, Expert in Climate Change Policy Directorate: E-mail confirmation dated 6 November 2012 that the EF for Bulgaria from NEK study issued 5 May 2005 (see reference /17/) is still valid for 2011 year,
/19/	ČEZ and Vez Svoghe: Protocols from electricity meter reading – Lakatnik (from January to October 2012).).
/20/	ČEZ and Vez Svoghe: Protocols from electricity meter reading – Svrazhen (from January to October 2012).).
/21/	ČEZ and Vez Svoghe: Protocols from electricity meter reading – Tzerovo (from April to October 2012)
/22/	State Agency for Metrology and Technical Supervision: Authorisation No. A-G-015 for CEZ/17/ LABORATORIES BULGARIA EOOD, issued by on 7 March 2008, valid for 5 years.
/23/	Svoghe Municipality: Building Permit for HPP Tserovo, No. 29, dated 8 June 2010
/24/	Svoghe Municipality: Building Permit for HPP Opletnia, No. 51, dated 16 September 2010
/25/	Svoghe Municipality: Building Permit for HPP Prokopanik No. 88 dated 15 December 2011
/26/	Vez Svoghe: Protocol of construction starting date of HPP Opletnia, dated 23 August 2011

5.2 Other project documents or documents used by DNV to verify the information provided by the project participants

/27/	National Institute of Meteorology and Hydrology: The hydrological data for Iskar river for 2011, January 2012
/28/	State Agency for Metrological and Technical Surveillance: Order № A-441/13.10.2011 – prolongation of Order № A-102/05.03.2010 – determined subsequent inspections period, 13 October 2011,
/29/	NEK: Baseline Carbon Emission Factor of Bulgarian Electricity and Heat Power System (NEK “Study”), issued 5 May 2005 http://www3.moew.government.bg/files/file/Climate/Climate_Change_Policy_Directorate/IET_M/Joint_Implementation/JI_documents/Baseline_CEF_Summary.pdf
/30/	DNV: Verification report for Sreden Iskar Cascade HPP Portfolio Project in Bulgaria, Verification Period: 1 January 2008 - 31 December 2008 No. 2009-9059. DNV: Verification report for Sreden Iskar Cascade HPP Portfolio Project in Bulgaria, Verification Period: 1 January 2009 - 31 December 2009 No. 2010-9054 DNV: Verification report for Sreden Iskar Cascade HPP Portfolio Project in Bulgaria, Verification Period: 1 January 2010 - 31 December 2010 No. 2011-9067 DNV: Verification report for Sreden Iskar Cascade HPP Portfolio Project in Bulgaria,



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	Verification Period: 1 January 2011 to 31 December 2011 No. 2012-9122
/31/	DNV: Determination report for Sreden Iskar Cascade HPP Portfolio Project in Bulgaria No. 2006-1811, revision 3b dated 3 December 2007
/32/	Organisation for Economic Co-operation and Development (OECD) and International Energy Agency (IEA), Practical baseline recommendations for greenhouse gas mitigation projects in the electric power sector. Information paper of 2002. (http://www.oecd.org/dataoecd/45/43/19433333.pdf)

5.3 Methodologies, tools and other guidance by the JI Supervisory Committee

/33/	JI Supervisory Committee, Determination and verification manual, version 01 adopted at JISC 19.
/34/	JI Supervisory Committee, Guidance on criteria for baseline setting and monitoring, version 02 adopted at JISC18.
/35/	CDM Executive Board: ACM0002 “Consolidated baseline methodology for grid connected electricity generation from renewable sources”, version 6 of 19 May 2006 and version 7.
/36/	JI Supervisory Committee, Standard for applying the concept of materiality in verifications, version 1
/37/	Netherlands’ Ministry of Economic Affairs: <i>Approval of Sreden Iskar Cascade HPP Portfolio Project in Bulgaria as JI project</i> , dated 28 November 2007 http://ji.unfccc.int/UserManagement/FileStorage/1APU1CJW1C1J08VEKVF1B1A649AX0R
/38/	OSC: Study Optimal on-cam determination, 14 July 2010

5.4 Persons interviewed during the verification

/39/	Chiara di Silvestro, MWH Energy Project Engineer
/40/	Patrick Pauletto, Project Manager, Vez Svoghe AD, Bulgaria
/41/	Annton Milchev, VEZ Svoghe Project Coordinator
/42/	Tsalo Parvanov, Operator, Vez Svoghe AD, Bulgaria.

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APPENDIX A

CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS

Corrective action requests

CAR ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CAR 1	During the operational data crosschecking with invoices there was found a mistake concerning the electricity production (Lakatnik March) These mistakes have to be revised in 2 nd version of MR. Table Annex 2.	Annex 2 Table of the MR has been revised and the new table has been attached in Annex 2.	This formal mistake in Annex 2 Table of the MR has been revised and the new table has been attached in Annex 2. CAR 1 has been closed

Clarification requests

CAR ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CL 1	Power purchase Agreement do not include Tzerovo as the newly operating HPP. Please explain this problem	<p>At the moment the electricity produced by the plant of Tzerovo is purchased by CEZ on the basis of the general purchase agreement. The specific contract for this plant is currently in stand-by because on September 18th, 2012 a new tax came into force with retroactive effect.</p> <p>The amount due is quantified as a percentage of the tariff and it varies depending on the source: 1% for biomass plants; 5% for hydroelectric, 10% of the tariff for wind power plants and between 1% and 39% for photovoltaic plants.</p> <p>The initiative of the government aroused many reactions, even at international level, highlighted by the initiative of the ambassadors of 13 European countries plus China and Korea, who expressed, in a letter to the Minister of Economy, Energy and Tourism, Delyan Dobrev, their strong concerns about the effects on the viability and sustainability of investments already on going or planned, and for damage to the country's image in the eyes of foreign investors. Moreover, the representatives of Bulgarian industry associations are going to report to the European Commission that they consider this tax as a real state aid in favour of distribution companies.</p> <p>Due to this on-going situation, Vez Svoghe is constantly monitoring the development of negotiations. The specific contract will follow when an agreement will be reached.</p>	<p>PP has provided the latest information concerning the Power Purchase agreement. Currently the electricity produced by the plant of Tzerovo is purchased by CEZ on the basis of the general purchase agreement. The specific contract for this plant is currently in stand-by because on September 18th, 2012 a new tax came into force with retroactive effect. Due to this on-going situation, Vez Svoghe is constantly monitoring the development of negotiations. The specific contract will follow when an agreement will be reached.</p> <p>CL1 has been closed</p>

CAR ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CL2	<p>a) Please, explain difference of 10 MWh between April electricity production and invoiced data. (184 MWh vers. 174 MWh invoiced) for Tzerovo (Table Annex 2) of MR</p> <p>b) MR Table 5: Achieved emission reductions in 2012 (until 31th October) uses generated electricity for ER calculation. for Tzerovo. Nevertheless under the PDD calculation should use electricity supplied to the grid by the Project (invoiced value?) Explain this discrepancy resp.do the respective corrections in the MR.</p>	<p>a) The real production of the plant of Tzerovo in the month of April is 184 MWh. Nonetheless CEZ has paid only 174 MWh since 10 MWh were the energy produced during the commissioning test. A note has been introduced as a footnote in Annex II.</p> <p>b) Table annex 2 amended.</p>	<p>Explanation of this has been provided and mentioned in the revised MR.</p> <p>CL2 has been closed</p>
CL3	<p>What is the reason of the lower ER result of the individual plants? Are there any other reasons instead of the low rainfall in 2012?</p>	<p>The reason for the low energy production is the very low rainfall and, therefore, the very low flow rates experienced by the Iskar River. It has also to be kept in mind that the efficiency of the turbines of Lakatnik and Svrajen has a severe drop at low flow rates. This is fatherly confirmed by the OSC study dated 14th July 2010.</p>	<p>PP has provided the information concerning he reason for the low energy production. It is very low rainfall and, therefore, the very low flow rates experienced by the Iskar River. It has also to be kept in mind that the efficiency of the turbines of Lakatnik and Svrajen has a severe drop at low flow rates confirmed by the OSC study dated 14th July 2010 /38/.</p> <p>CL 3 has been closed</p>

CAR ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CL4	<p>NEK: Baseline Carbon Emission Factor of Bulgarian Electricity and Heat Power System (NEK "Study"), issued 5 May 2005, last visit of the webpage on 5 March 2012</p> <p>http://www.moew.government.bg/recent_doc/climate/Baseline%20CEF%20Summary.pdf</p> <p>The mentioned web link does not operate. Could you provide the correct link?</p>	<p>The entire document does not seem to be on the web site anymore. However the table quoting the emission factors is located at the following link:</p> <p>http://www3.moew.government.bg/files/file/Climate/Climate_Change_Policy_Directorate/IETM/Joint_Implementation/JI_documents/Baseline_CEF_Summary.pdf</p>	<p>Correct reference has been provided and is operating.</p> <p>CL 4 has been closed</p>

Forward action requests from previous verification

FAR ID	Forward action request	Summary of how FAR has been addressed in this reporting period	Assessment of how FAR has been addressed
FAR 1	NA		

Forward action requests from this verification

FAR ID	Forward action request	Response by Project Participants	DNV's assessment of response by Project Participants
FAR 1	NA		