

Verification and Certification Report

First periodic verification

Report for:

Japan Carbon Finance Ltd.

Verification of JI project for
Kaliakra Wind Power Project
(Ref BG1000155)

Monitoring Period:
March 2008 to December 2009

LRQA Reference	: SOF6010089/version 1
Date	: 03/06/2010
Work carried out by	: Javier Vallejo Lyubka Marinova
Work verified by	: Andrew Ritchie Madlen King

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1 Executive Summary

Lloyd's Register Quality Assurance Limited has been contracted by Japan Carbon Finance Ltd., representing the project participants (PP), to undertake the first periodic verification of the registered project activity "Kaliakra Wind Power Project", project reference number BG1000155, covering the monitoring period from 23rd March 2008 to 31st December 2009. The verification has been performed by: document review based on the Monitoring Report revision 3, dated 14 June 2010; on-site assessment and interviews with the stakeholders; resolution of outstanding issues and issuance of the verification report.

The project intends to reduce greenhouse gas (GHG) emissions by construction of 35 aerial wind turbines and associated facilities with overall capacity of 35 MW and the provision of generated electricity to the Bulgarian power grid.

The fulfilment of the requirements as set forth in Article 6 of the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC), the JI Guidelines, relevant decisions of the Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol (COP/MOP) and of the authorities of the host country, and the Supervisory Committee of the JI (JISC) has been evaluated and conformance to the verification requirements were confirmed based on the given information. A risk based approach was taken to conduct the verification and corrective action requests (CARs), clarifications (CLs) and forward action requests (FARs) were issued for relevant actions by the PP.

The verification team identified, through the verification process, two CARs, three CLs and an FAR. The PP has taken actions and submitted to LRQA the revised monitoring report and supporting evidence. The verification team, through the verification process, confirmed that the emission reductions achieved by the project activity during the monitoring period are correctly calculated in the monitoring report Version 3, dated 14 June 2010 based on the approved monitoring methodology and the monitoring plan of the registered PDD. Therefore LRQA certifies the emission reductions amounting to 119,024 tCO₂e.

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Abbreviations

CAR	Corrective action request
JI	Joint Implementation Mechanism
JISC	Joint Implementation Supervisory Committee
JI-G	Joint Implementation Guidelines
ERUs	Emission Reduction Units
CL	Clarification
COP/MOP	Conference of the Parties serving as meeting of the Parties to the Kyoto Protocol
ERs	Emission reductions
FAR	Forward action request
GHG	Greenhouse gas
IPCC	Intergovernmental panel on climate change
KP	Kyoto Protocol of the United Nations Framework Convention on Climate Change
LR	Lloyd's Register
LRQA	Lloyd's Register Quality Assurance Limited
PDD	Project design document
PP	Project participant
tCO ₂ e	Tonne of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change

2 Introduction

The project participant (PP) represented by Japan Carbon Finance Ltd has contracted with Lloyd's Register Quality Assurance Limited (LRQA) to undertake the first periodic verification of the proposed project activity "Kaliakra Wind Power Project" covering the monitoring period from March 2008 to December 2009. This report summarises the findings through the verification process that has been conducted on the verification requirements of the JI.

The verification has been undertaken by the team formed of the qualified personnel of LRQA as follows.

Javier Vallejo	LRQA (Coventry)	Team Leader, CDM Lead Verifier, (Sector Expert)
Lyubka Marinova	LRQA (Sofia-Bulgaria)	Team Member, CDM Verifier, (Local Expert)
Andrew Ritchie	LRQA (Coventry)	Technical Reviewer, CDM Lead Verifier
Madlen King	LRQA Ltd.	Decision Maker

In accordance to Bulgarian JI Track 1 procedures, personnel being engaged in this JI project verification are qualified based on the established procedures of LRQA for CDM Lead verifiers and verifiers to assure the resource requirements that satisfy all the requirements of competence criteria of the JI accreditation standard for Independent Entities. According to Bulgarian JI T1 procedure LRQA is qualified for performing verification under JI T1 in Bulgaria since it is designated as an operational entity and holds the full responsibility on decision-making regarding the verification. The certificate of appointment of the team personnel is attached to this report.

2.1 Objective

Through the verification activities, the verification team is to confirm that:

- 1) the project activity has been implemented and operated as described in the determined PDD and that all physical features of the project activity are in place;
- 2) the monitoring report (MR) and other supporting documents provided are complete and verifiable and in accordance with applicable JI requirements;
- 3) actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan (MP) and the used methodology; and
- 4) the data is recorded and stored as per the monitoring methodology.

The verification follows the requirements of the current version of the JI determination and verification manual (JI DVM) to ensure the quality and consistency of the verification work and the report.

2.2 Scope

The scope of verification is an independent and objective review of the monitored emission reductions (ERs) against the verification requirements of the JI Track 1 Bulgarian procedures and the JI Guidelines. LRQA follows a risk-based approach in the verification, focusing on the identification of significant risks for implementation of the registered monitoring plan and the resultant emission reductions. A verification

statement shall become final subject to the final review by the decision maker of LRQA Ltd.

2.3 GHG Project Description

Project title	Kaliakra Wind Power Project
Jl Host country reference	BG1000155
Date of determination	04 June 2010
Applied methodology	ACM0002 (ver. 6) Consolidated baseline methodology for grid-connected electricity generation from renewable sources
Crediting period	2008 – 2012
Project location	Kaliakra Cape, Kavarna municipality, Bulgaria
Project participants	Kaliakra Wind Power AD (Project Company), (Bulgaria) Inos-1 OOD (Bulgaria) Japan Carbon Finance Ltd (Japan) Mitsubishi Heavy Industries Ltd (Japan)
Monitoring period	March 2008 – December 2009

3 Methodology

3.1 Desk review

The verification is performed primarily based on the review of the monitoring report and the supporting documentation. This process includes:

- 1) review of data and information presented to verify completeness;
- 2) review of the MP and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the QA/QC procedures, and
- 3) Evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report Version 1.0 dated 25.05.2010 was initially reviewed and LRQA requested the PP to present supporting information and documents and such additional information and documents were also reviewed by LRQA. The documents reviewed by LRQA are listed in Appendix A.

Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by LRQA. The documents reviewed by LRQA are listed in Appendix A. LRQA reviewed the final version of the monitoring report Version 3 dated 14.06.2010 to confirm that all changes agreed had been incorporated.

3.2 On-site assessment

On-site assessment is conducted as a part of verification activity and involves:

- 1) assessment of the implementation and operation of the JI project activity as per the determined PDD;

- 2) review of information flows for generating, aggregating and reporting of the monitoring parameters;
- 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the MP;
- 4) a cross-check between information provided in the MR and data from other sources;
- 5) a check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the applied methodology;
- 6) review of calculations and assumptions made in determining the GHG data and ERs; and
- 7) identification of QA/QC procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

Date	Place	Subject
08/06/2010	Kaliakra Cape, Kavarna Municipality Bulgaria	Opening meeting Project implementation and management Site tour Data management and reporting systems
		Data verification QA/QC, management systems Environmental and social issues Issues with local stakeholders Closing meeting

The list of persons interviewed is shown in Appendix B.

3.3 Background investigation

The verification team made reference to additional data, if comparable information was available from other sources, to cross check the MR on the correctness of stated figures. The sources and the data referenced are shown in Appendix A.

3.4 Resolution of clarification and corrective action requests

Findings identified in the process are indicated under the titles Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). CARs and CLs require the PP to take relevant actions. Criteria for judging items as CAR or CL are as follows:

Corrective Action Request (CAR):

- 1) Nonconformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- 2) Mistakes have been made in applying assumptions, data or calculations of

emission reductions that will impair the estimate of emission reductions; and/or

- 3) Issues identified in an FAR during determination to be verified during verification have not been resolved by the project participants

Clarification (CL) Request:

- 1) information is insufficient or not clear enough to determine whether the applicable JI requirements have been met.

FARs are raised if the monitoring and reporting requires attention and/or adjustment for the next verification period. FARs do not relate to JI requirements for issuance of ERs achieved during the subject monitoring period.

CARs and CLs are to be resolved or closed if the PP modifies the MR or provides adequate additional explanations or evidence that satisfies the concerns. If this is not completed, the ERs cannot be certified and recommended for issuance to the JI Host Country authorities.

3.5 Internal quality control

The technical review by a qualified person independent from the verification team and a review by an authorised decision maker are conducted prior to the submission of the verification report to the PP and prior to requesting the issuance of the verified ERs.

4 Verification protocol and conclusions

This section provides an overview of the verification activities undertaken by LRQA in order to arrive at the final verification conclusions and opinion. It includes a general discussion of details captured by the verification workbook (which is based on the JI Determination and Verification Manual Version 01) and conclusions related to JI requirements. Further details of each finding are shown in the Verification Findings Log.

The protocol is structured based on the main verification requirements as follows:

- Determination and project implementation
- Monitoring and reporting systems
- Emission reductions
- Management systems
- Environmental and social impacts.

4.1 Determination and project implementation

Determination of Kaliakra Wind Power Project was carried out by JACO CDM Ltd. The final version of the Determination Report Revision No. 03 dated 04/06/2010 provided the opinion of the determination body that the project as described in the PDD version 1.2 (rev 1.0) dated 03.12.2009 meets all relevant UNFCCC requirements for a JI Project. No outstanding issues remained open in the final determination report.

The project location is on Kaliakra Cape, Kavarna municipality, Bulgaria. The project area according to registered PDD is 2960 m². After requesting clarification on this matter (see CL01) it was confirmed that project area is around 270 ha, which means 2 700 000 m². This misunderstanding in the PDD is not considered relevant for the emission reductions calculations.

The project implementation involved construction of 35 wind turbine generators (WTG) of 1,000 kW each for a total of 35 MW. The generated electricity is delivered to the Bulgarian National Grid on the basis of a contract with the National Electricity Company EAD (NEK EAD). The associated facilities that were constructed as part of the project implementation included a control centre within the project area and a transmission line for connection to the grid system. Project implementation was confirmed on the basis of the presented documentation and during the site-visit. The project boundary covers the project site area and the whole of the Bulgarian power grid, as described in the PDD.

The commissioning of the first WTG was done in the period 23-24/03/2008 which was considered to be the crediting period starting date.

During the review of project implementation information it was found that the estimated annual electricity generation specified in the PDD is different from the real generation both in 2008 and 2009. In addition the operational and maintenance costs for 2009 significantly differ from the figures that are planned in the PDD. This data is used in the financial analysis to demonstrate project additionality and for this reason clarification was requested on this matter (see CL02). Presented recalculation of Project Internal Rate of Return (IRR) using project implementation related data shows that Project IRR remains less than Equity IRR stated in the PDD to demonstrate project additionality.

4.2 Monitoring and reporting systems

The monitoring system as defined in the determined PDD, and in accordance with the company monitoring procedure, requires monitoring of one parameter – generated electricity – measured using the electricity meter used for trade purposes and owned by NEK EAD.

Additionally the generated electricity is measured by a control electricity meter owned by Kaliakra Wind Power (KWP) and through a SCADA software system which is also used for the control of the operation of the WTGs. The SCADA system generates data for the produced electricity from each WTG.

Data from the electricity meters owned by NEK and KWP are read and recorded manually by shift operators at midnight. The data from the NEK electricity meter are read automatically by NEK via modem connection for the purposes of invoicing. SCADA software data for the generated electricity are generated every 15 minutes and are recorded in electronic form on a hard drive and subsequently archived on CDs. Data from these three sources is compared. Differences between these are mainly due to a slight deviation in reading time in the case of the NEK meter and the control electricity meter, and due to transmission losses, in the case of the SCADA software.

During the verification, it was found that the electricity delivered to KWP to cover internal needs in the periods when the site's own production was not sufficient was monitored using the electricity meters owned by NEK and the control one owned by KWP. However, these amounts were not subtracted from the exported electricity in order to have only net produced electricity considered for the calculation of emission reductions. CAR01 was raised on this issue. Data are presented and the emission reductions were recalculated accordingly. CAR01 was closed.

Responsibilities with respect to monitoring of data are defined in the company Management procedure. The measurement equipment used is calibrated in accordance with the provisions of the Bulgarian legislation. Accuracy of metering equipment ensures generation of reliable data.

4.3 Emission reductions

Emission reductions are calculated on the basis of the methodology and formulas provided in the registered PDD version 1.2 (rev 1.0) dated 03/12/2009, as follows:

$$ER (tCO_2) = BE (tCO_2) = GEN(t) * CEF$$

where

GEN(t) is the electricity generated and supplied to the grid in MWh in year t and CEF – 1.026 tCO₂/MWh – is calculated ex-ante and fixed for the overall crediting period in accordance with implemented ACM0002, version 6.

The initially presented monitoring report version 01 dated 25.05.2010 was reviewed. The presented data about generated electricity was found to correspond to the data in the documents provided for the electricity supplied to the grid, but due to the omission of electricity imported to site (see CAR01) the calculations presented in Monitoring report version 1 were corrected and Monitoring report version 2 was issued. Due to some formal issues (mainly missing date of issue on Monitoring report version 2), a monitoring report version 3 was issued on 14 June 2010. Information therein was reviewed and found to be in line with reviewed documents and data.

Data for the generated and purchased electricity used for the calculations was checked on the basis of monthly protocols signed both by NEK and KWP and internal records for the daily readings of NEK electricity meter and the control meter owned by KWP as well as summarised data from SCADA software. No issues were found.

4.4 Management systems

Responsibilities for monitoring and reporting are described in the Monitoring plan, part of registered PDD version 1.2 (rev. 1) dated 03.12.2009 as well as in Management procedure rev. 01/dated 25.05.2010. The responsibilities of the General Manager of Kaliakra Wind Power AD, the O&M Manager, Administration Manager and Shift Operator are described in the Monitoring plan. During the site visit and the interviews with responsible personnel, it was found that the Plant Manager is also involved in the monitoring process and his duties and responsibilities are not clearly defined in the PDD. In addition, the title of the Administrative Manager has changed to Chief Operating Officer. This issue, however, was found not to be significant in relation to the overall monitoring and reporting process. The changes are already reflected in the internal management procedure rev.01/dated 25.05.2010, which covers the confirmed responsibilities for the monitoring and reporting process.

The internal management procedure rev. 01/ dated 25.05.2010 covers data to be monitored, places of storage of information, internal communication connected with data transfer, data and documents retention period, as well as a procedure to conduct

internal audits of the system. During the verification work on site, internal audit records were not presented. CAR02 was issued. Further evidence, including an order to carry out internal audit 025/03.06.2010 issued by the General Manager, an Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list, the CAR was closed. To follow up the results of the internal audit FAR 01 is issued since the results of this internal audit need to be reviewed and checked in the next verification activity of the wind farm.

The company has identified potential emergency situations that are likely to occur on site and has addressed these in the prepared emergency preparedness and response plan.

A procedure is established for induction training as well as for periodic training of personnel. Periodic training is related mainly to maintaining specific qualifications (for work with electricity above 1000 V). Qualification documents for the latter were seen during the site visit and a programme and records for the induction training provided were presented.

4.5 Environmental and social impacts

The operation of the site is permitted on the basis of Environmental Impact Assessment decision No 2573/23.06.2005 issued by the Ministry of Environment and Water, Regional Inspectorate on Environment and Water – Varna. The decision was confirmed through out court process with Decision No2411/20.02.2009 of the Supreme Administrative Court of the Republic of Bulgaria.

Under the conditions of the Environmental Impact Assessment decision No 2573/23.06.2005, monitoring of ornithofauna, noise and electromagnetic levels are required under the specified conditions. Some of the documentation related to the required monitoring was presented during the site visit. Following a clarification request (see CL03) all the information regarding monitoring of ornithofauna in the project area as per the requirements of the EIA decision was presented, along with evidence for submission of the monitoring reports to respective competent authorities – Regional Inspectorate for Environment and Water.

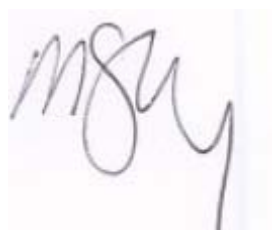
5 Verification opinion

LRQA has undertaken the first periodic verification of the project activity “Kaliakra Wind Power Project” covering the monitoring period from March 2008 to December 2009 based on the requirements of JI as set out in Article 6 of the Kyoto Protocol, the JI Guidelines, the present annex, subsequent decisions made by the COP/MOP and JISC, and the Bulgarian procedures for JI Track 1 projects, including the host country’s legislation and its specific requirements for sustainable development.

Through the verification process, the verification team identified two CARs, three CLs and one FAR. The PP has taken actions to address the CARs and CLs and submitted to LRQA the revised monitoring report Version 03 dated 14 June 2010 and other supporting evidence. All CARs and CLs have been closed prior to the issuance of the verification report.

The verification team is of the opinion that the proposed project activity has been implemented in accordance with the registered PDD, the MP complies with the approved monitoring methodology, the monitoring complies with the MP and the monitored data and calculation of ERs are assessed and confirmed as correct. Therefore LRQA hereby certifies the reported ERs of “Kaliakra Wind Power Project” during the monitoring period of March 2008 to December 2009 amounting to 119,024 tCO₂e.

Decision Maker



Madlen King
Global Head of Climate Change

7 Appendices

7.1 Appendix A: List of documents reviewed

Category A documents (documents from the PP)

1. Project Design Document for Kaliakra Wind Power Project Version 1.2 (rev. 1.0) dated 03/12/2009
2. Determination report for Kaliakra Wind Power Project Revision No.03/14.06.2010 issued by JACO CDM Ltd
3. Letter of approval by Ministry of Environment and Water, Republic of Bulgaria, issued on 15.01.2010
4. Letter of approval by Ministry of Economy, Trade and Industry, Government of Japan issued on 29.06.2010
5. Contracts between Inos-1 Ltd and Kavarna municipality for transferring of the right to construct over 3x900 dha (3x90ha) municipal land (contracts signed on 20.07.2004)
6. Summary of hours of operation of diesel generator in 2008 – 2010
7. Wind farm over view (SCADA)
8. Instruction manual and O&M Manual – Mitsubishi Wind Turbine Generator (extract)
9. Test Report of 3 Phase Induction Machine WTG 25 - Hyundai Heavy Industries.
10. SCADA technical features No 25 windmill turbine
11. Commissioning check sheet for MTW62/1.0, WTG No1
12. Agreement EP-084/2007 for connection of an independent producer of electricity into the electricity transmission network
13. Power purchase agreement with National Electricity Company 02/03/2007
14. Decision C-04/30.03.2009 and C-015/31.03.2008 of the State Commission for Energy and Water Regulation
15. Engineering, procurement and construction contract between Kaliakra Wind Power AD, Inos-1 OOD and Mitsubishi Heavy Industries Ltd, dated 02 October 2006
16. Semi- annual operations reports No 2009-H2 (dated Jan 2010), 2009-H1 (dated Jul 2009), 2008-H1 (dated Jan 2009) – Kaliakra Wind Power AD
17. Calculation of IRR based on real project data
18. Certificates of origin of the electrical energy (E-13-40-1_1/31.08.2009, E-13-40-1_2/31.08.2009, E-ZSP-109_3/14.12.2009, E-ZSP-109_4/14.12.2009) issued by the State commission for energy and water regulation
19. Calibration documents for electricity measuring devices
20. NEK's monthly measurement protocols
21. Management procedure MP_EN05, rev. 1.0, date 25.05.2010
22. Internal audit - Order to carry out internal audit 025/03.06.2010 issued by the General manager was presented, as well as Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list
23. Emergency preparedness and response plan October 2007 KWP
24. Training records – Order 001/18.02.2008, Induction training program, Training report (19.02.2008-03.03.2008)



25. Plan for own monitoring of noise and ornithofauna November 2007, Letter for approval of the plan 26-00-2939/13.05.2008 issued by Regional Inspectorate for Environment and Water Varna
26. Noise monitoring reports dated April 2008 and May 2008, Letters for submission of the reports to RIEW Varna (210/02.06.2008) and Regional inspectorate for protection and control of public health (209/02.06.2008)
27. Instruction for decreasing of the negative impact on flora and fauna in compliance with EIA decision 2573/25.06.2005 of RIEW Varna
28. Monthly reports for work carried out in July 2008, August 2008, September 2008, October/November 2008, December 2008, January 2009, February 2009, March 2009, April 2009, May 2009 and General report covering the overall period July 2008 – June 2009 prepared by Institute of Zoology, Bulgarian Academy of Sciences. Letter for submission of the reports to RIEW Varna (049/15.07.2009, 043/20.05.2009, 036/27.04.2009, 017/23.02.2009, 005/20.01.2009, 003/12.01.2009, 208/23.10.2008, 199/15.09.2008, 191/13.08.2008, 111/01.07.2008)
29. Report for monitoring survey on spring migration of birds in the region of Kaliakra cape, Kavarna municipality, prepared by Institute of zoology, Bulgarian Academy of Sciences, March-May 2005; Report on monitoring of autumn migration of birds on the territory of Kavarna municipality, prepared by Institute of Zoology, Bulgarian Academy of Sciences August-November 2004
30. Contract 5/16.06.2008 with Titan Chistota OOD was presented (for municipal waste) and Contract 2/01.09.2009 with Dina-Trans 2008 EOOD for the cleaning of sewage sludge pit, and Contract dated 27.11.2009 with Geosim OOD for the used oils.

Category B documents (other documents referenced)

1. ACM0002 (version 6) Consolidated baseline methodology for grid-connected electricity generation from renewable sources

7.2 Appendix B: List of persons interviewed

Kaliakra Wind Power AD

Zoya Tredafilova – Representative of company management

Vera Trendafilova – Chief Operating Manager

Borislav Petkov – O&M Manager

Dimitar Stoev – Acting Plant Manager

Konstatin Georgiev – O&M Assistant Manager

7.3 Appendix C: Certificate of Appointment

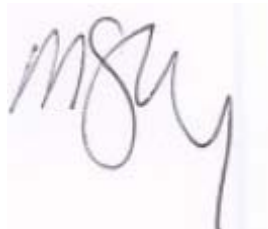
Verification of "Kaliakra Wind Power Project"

We hereby certify that the following personnel have engaged in the verification process that has fully satisfied the competence requirements of the verification of the JI project activity.

Name of Person	Assigned Roles
Javier Vallejo	Team Leader
Lyubka Marinova	Team Member
Andrew Ritchie	Technical Reviewer
Madlen King	Decision Maker

Signed by

Decision Maker



Madlen King
Global Head of Climate Change

7.4 Appendix D: Verification Workbook

LLOYDS REGISTER QUALITY ASSURANCE
Joint Implementation Mechanism
Verification workbook

Version 01/ 12 June 2010

LIST OF MONITORED PARAMETERS

Parameter to be monitored	Description	Generation, aggregation and calculation of data		Recording	Value		Risk H/M/L	Means of Verification (including comments on how to cross-checked data)	Discount for errors and uncertainty
		MP	MR		Ex-ante	Ex-post			
GEN (t), MWh	Electricity generated and supplied to the grid by the project	Monthly data based on reading of NEK owned electricity meter, compared with SCADA data generated daily	Hourly data, reported monthly, compared monthly with monthly aggregated daily internal records of Trade and control electricity meter as well as SCADA software data Aggregated annually	Manual and electronic	79,300 MWh	68,230 MWh	L	1. Monthly protocols signed between NEK and KWP 2. Comparison with internal monthly aggregated figures from daily readings of NEK and control KWP electricity meters 3. Comparison with aggregated SCADA data	516.022 MWh in 2008 670.301 MWh in 2009

VERIFICATION CHECKLIST

- Describe the verified situation for each item of the verification checklist and conclude if it is OK or not, raising the corresponding CAR, CL or FAR in accordance to the JI (UNFCCC) verification and certification assessment procedure.
- Transfer each CAR and CL to the Verification Findings Log at the end of this verification workbook.

	Verified situation	Conclusion
SECTION 1. Registration and project implementation		
General description of the project		
1.1. Is the general information of the project provided and is it as in the determined PDD?	General information about the project provided in the PDD corresponds in general to the real situation related to project implementation. However, some deviations were found as described below. General project information in the PDD specifies the project area and the facilities to be constructed for the implementation of the project. Project area in the PDD was estimated to be 2.960 m ² . During the site tour it was found that the project area is much wider and clarification was requested to be provided on the matter. The information and documents provided show that there are three contracts signed by one of the companies –owners of Kaliakra Wind Power (Inos-1 Ltd) and the municipality of Kavarna (the contracts are dated 20.07.2004) for transferring of rights to construct on three terrains 900 dka (90ha) each, thus the project area comprised 270 ha. The clarification request is closed based on presented documents. According to the PDD the main project facilities to be constructed include 35 aerial generators 1,000 kW each of 69 m height, control centre and transmission line for connection to nearest substation.	CL1/OK
1.2. Is there any open issue in the validation / previous verification including FARs?	The Determination report revision No.03 dated 04.06.2010 issued by JACO CDM Ltd was reviewed and it was found that no issues remain open as at the time of verification. As this is the first verification of the project no previous verification reports exist.	OK
Location of the project		
1.3. Is the project location indicated as the same as the registered PDD? Confirm geographical coordinates	The project location is specified in the PDD providing several maps (Fig. 1 Geographical location of the project site and Fig. 2 Construction layout of the wind turbines). Additionally, a description of project site location is provided along with geographical coordinates (43°23' N, 28°27' E). The project location was confirmed during site visit using the presented maps and site layout that is part of project design documentation.	OK
Project boundary		

	Verified situation	Conclusion
1.4. Is the project boundary described as in the same manner as the registered PDD? Please confirm each component based on the applied methodology.	<p>The project boundary covers the project site area and the whole Bulgarian power grid, as described in the PDD. According to the determined PDD no leakage is found. In the determined PDD the issue related to “double counting” of emissions is considered in relation to the emission reduction targets of the fossil-fuel burning power generation plants in Bulgaria regulated under EU ETS.</p> <p>The CDM methodology applied for this project according to the determined PDD is ACM0002 (ver. 6) Consolidated baseline methodology for grid-connected electricity generation from renewable sources. This methodology in the determined PDD is referred mainly with respect to the calculation of the emission factor. The “ simple adjusted OM method” and the Ex-ante option for the BM are applied to calculate the Combined Emission Factor ex-ante and remains fixed for the overall crediting period.</p>	OK
1.5. Has on-site fossil fuel consumption if any been monitored? Is any emission source missed? Check the site lay-out and confirm through site tour.	<p>Site tour was carried out on 08 June 2010. Site lay-out was confirmed by comparison with provided site lay-out plans and the figures presented in the PDD.</p> <p>On-site fuel consumption is related only to the use of diesel fuel to ensure operation of emergency electricity generator only to cover domestic needs in case of no wind and blackouts at the same time. The operation of the diesel generator is monitored recording the number of working hours and the date. A summary sheet was provided for this data and the emergency generator has been in operation in the period Mar 2008 – Dec 2009 74 hours 54 minutes. Taking into account efficiency of the generator and the diesel emission factor, these project emissions accounts for less than 0.5% of total emission reductions, and are therefore considered immaterial.</p>	OK
Project implementation and management		

	Verified situation	Conclusion
<p>1.6. Confirm technical specifications and list technical components and equipment, checking design parameters and current status of operation. Please check to ensure that all physical features of the proposed JI project activity in the registered PDD are in place and the PP has operated the proposed JI project activity as per the registered PDD</p> <p>It may include but not limited to ;</p> <ul style="list-style-type: none"> - the actual capacity and output - plant load factor - type of feedstock - operation of other components/units within the project boundary which could affect functioning of the project plant 	<p>According to the determined PDD the project related facilities that have to be installed are: 35 turbines, control centre, sub-station and transmission line to connect with National grid. The installation of these facilities was confirmed during the visit to project area and the site tours</p> <p>Turbines characteristics according to the PDD are: Wind turbine Technology MWT-1000A - 1,000 Kw, 61.4 m diameter, 3-blade rotor, Hub height 69 m and induction generators of 690 volts at 1500 rpm. Start from wind speed 3 m/s and shuts down at 25 m/s, rated speed about 12.5 m/s. Each unit generates 2.27 million kWh/ year if capacity factor is 25.86 %.</p> <p>The above technical specifications were confirmed during the project site visit and with the presented documents. 35 wind turbines were installed which precise location corresponds to the presented site layout plan. Additionally the following documents were also reviewed:</p> <ul style="list-style-type: none"> - Instruction manual and O&M Manual issued for Mitsubishi Wind turbine generator (specifying characteristics of the turbines). - Hyundai Heavy Industries test report for the installed induction generators (specifying technical parameters of the induction generators). - SCADA software was also reviewed to confirm the control and installed and operational features of installed equipment. - For each Wind Turbine Generator Unit (WTG) a separate file is maintained with all test reports and related specifications and documents. The file for WTG No25 was reviewed. <p>At the time of on-site visit 32 WTG were in operation and 3 were stopped for periodic planned maintenance. The operation first installed turbine (WTG No1) was commissioned in the period 23/03/2008-24/03/2008 for which Commissioning worksheet was presented.</p> <p>The control centre was visited during the project site visit. It covers control of WTGs operation. A local sub-station and a transmission line to connect to power grid at 110 kV is constructed and is currently in operation. The transmission line ownership has been transferred to the National Electricity Company (NEK EAD) on the basis of the provisions of the contract EP-084/07 dated 19.03.2007 for connection of an independent producer of electricity into the electricity transmission network which on the other hand is based on the provisions on the Bulgarian legislation.</p> <p>For the operation of the Wind plant a separate contract is signed with the National Electricity Company EAD (Power Purchase Agreement) dated 02/03/2007. Changes in purchasing rates are introduced with Decisions of the State commission for Energy and Water Regulation. During the period of interest (Mar 2008 – Dec 2009) two decisions (C-015/31.03.2008 and C-04/30.03.2009) were issued.</p> <p>Semi-annual operation reports were presented for second half of 2008 and for the first and second half of 2009. Reports provide details about the operation and maintenance of each of the WTGs, as well as data for operational, maintenance and other costs.</p> <p>In the PDD it is stated that average annual electricity generation through out project life is expected to be 79,284 MWh/year and also details are provided for the expected electricity tariff (changed 3 times during reporting period as described in the previous paragraph), the total project cost (confirmed on the basis of the data in the Engineering, Procurement and Construction Contract dated 2 October 2006 – see next item). However, for the operational and maintenance cost it was found that planned annual O&M cost per year as per PDD differs significantly from the O&M costs reported for 2008 and 2009 in the Semi-annual operations reports for the second half of 2008 and 2009.</p> <p>As these data average electricity generation in MWh/year, electricity tariff, total project cost and O&M cost per year are used for the calculation of Internal Rate of Return used to demonstrate project additionality a clarification was requested to check that the project is still additional. Presented recalculation of Project IRR using project implementation related data shows that Project IRR remains less than Equity IRR stated in the PDD to demonstrate project additionality. Issue was closed.</p>	CL02/OK

	Verified situation	Conclusion
1.7. Confirm contractors for equipment and installation works	Equipment provision and installation works was done by both companies' shareholders of the project company Kaliakra Wind Power AD – Inos-1 OOD and Mitsubishi Heavy Industries Ltd on the basis of Engineering, Procurement and Construction Contract dated 2 October 2006.	OK
1.8. Confirm conformance with baseline and monitoring methodology - Applicability conditions. Please refer to the complete description of the applicability conditions and confirm that the project activity meets all the requirements.	The applicable baseline and monitoring methodology for the project is ACM0002 (ver. 6) Consolidated baseline methodology for grid-connected electricity generation from renewable sources. The methodology applies to grid-connected renewable power generation project activities under the conditions that electricity capacity additions are from several possible sources, including wind sources (as is the case with the present project) and that the geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available. Certificates for origin of the electrical energy (E-13-40-1_1/31.08.2009, E-13-40-1_2/31.08.2009, E-ZSP-109_3/14.12.2009, E-ZSP-109_4/14.12.2009) issued by the State commission for energy and water regulation in accordance with applicable legal provisions were presented. Characteristics of the grid are presented in the Baseline study for Joint Implementation Projects in the Bulgarian Energy Sector. Carbon Emission factor and a table showing Baseline Carbon Emission Factor of Bulgarian Electricity and Heat Power System.	OK
1.9. Check data in the MR and in the PDD. Describe data and variables that are different from that stated in the registered PDD and caused an increase in Emission reductions estimations.	The variables and the data in the registered PDD and the Monitoring report are the same. The monitored parameter is electricity generated and supplied to the grid (MWh). However, during the site tour and the interviews with responsible personnel it was found that the internal consumption of electricity that is covered by electricity supplied by the National Electricity Company (NEK EAD) in the period when generated electricity on site is not sufficient to cover internal need (i.e. when there is no export) and that electricity consumption is not reduced from the one supplied to the grid. The new version of the MR contains an additional table showing that now purchased electricity data are included in the monitoring report and subtracted from the electricity produced.	CAR 01/ OK
Operating and maintenance conditions		

	Verified situation	Conclusion
1.10.Are the structural and organizational provisions in the PDD implemented? Check if all responsibilities are defined and persons in charge are aware.	<p>Structural and organizational provisions in the PDD define the responsibilities of the General manager of Kaliakra Wind Power AD, the O&M Manager, Administration manager and Shift operator. During site visit and the interviews with responsible personnel it was found that the Plant manager is also involved in the monitoring process and his duties and responsibilities are not clearly defined in the PDD. This issue, however, was found not relevant for the overall monitoring and reporting process and does not affect emission reductions calculations, in fact it is an improvement of the monitoring process. The title of the Administrative manager is change to Chief operating officer and his responsibilities are clearly determined in the internal management procedure rev.01/dated 25.05.2010.</p> <p>The monitored parameter as per approved Monitoring plan is the electricity generated by KWP and metered at the substation on site owned by NEK. Additionally SCADA (control software) data for the produced electricity should be monitored and daily generation report should be filled in. Shift operators record the readings of the trade electricity meter (owned by National Electricity Company EAD) and the control electricity meter (owned by Kaliakra Wind Power AD) every day at midnight. SCADA data are generated on-line every 15 minutes for each WTG and summary data could be provided for daily electricity generation. Small deviation from the monitoring plan was established with respect to data that are recorded manually (in the monitoring plan SCADA data should be recorded by the shift operator daily and on practice the shift operator records manually the readings of the NEK and the control electricity meter). The deviation was found not to affect the reliability of the monitoring and reporting process since this differences are due to internal transmission losses.</p>	OK
1.11.Check operational record and status. Check if maintenance provisions in the PDD are in place and working.	For each WTG a file of operational and maintenance provisions and records is maintained. File for WTG 25 was reviewed. Maintenance is done on the basis of manufacturer's specification described in Operational and maintenance manual. Checklists for maintenance are used and records in these maintained accordingly. Semi-annually operational and maintenance information is incorporated in operational report as details are provided for each WTG separately.	OK

	Verified Situation	Conclusion
SECTION 2. Monitoring and reporting systems		
Monitoring Methodology and Monitoring Plan		
2.1. Is the monitoring plan (determined) in accordance with the applied methodology?	A deviation was found with respect to purchased electricity from the grid (imported electricity) – see CAR 01. Correction was implemented and CAR is resolved.	CAR01/OK
2.2. Has the monitoring been implemented in accordance with the monitoring plan contained in the registered PDD? Confirm that the monitoring and reporting procedures have been implemented as documented	Monitoring was confirmed to be implemented as per the monitoring plan within the registered PDD. The parameter to be monitored is the electricity supplied to the grid (MWh) measured using a trade electricity meter owned by NEK EAD. The data from NEK electricity meter are read automatically by NEK via modem connection for the purposes of invoicing. Additionally purchased electricity from the grid needs to be monitored and reported (see CAR 1). Purchased electricity is measured with the same electricity meter and data is available in monthly reports signed by both parties NEK EAD and KWP AD. Small deviations were found as described under 1.10 above which were found not to be relevant for the monitoring and reporting process.	OK
2.3. Described and specified the type of measurement instrumentation used?	No specific details are provided in the PDD about the measurement devices that are used on site. During the visit the type and calibration status of the used measurement devices was checked. These include: 1. Tree current measurement transformers Type IOSK 123-Trench, ID 2073725, ID 2073726, ID 2073724 2. Tree voltage measurement transformers Type Trench-123, ID 30024702, ID 30024701, ID 30024703 Producer test reports for the current and voltage transformers were presented (dated 16.01.2008, 04.01.2008 respectively). Calibration reports No 068-01/14.05.2009, 068-02/14.05.2009, 068-03/14.05.2009, 068-04/14.05.2009, 068-05/14.05.2009, 068-06/14.05.2009 issued by Bulgarian Institute for Metrology, Regional division Varna. 3. Electricity meter type AINETAL-X, ID 07120767 (trade electricity meter owned by NEK EAD). Calibration reports 32/11.06.2007 (initial calibration) 4. Control electricity meter AINETAL-X, ID 07120766 (control electricity meter owned by KWP AD), A report 21/28.03.2008 issued by National Electricity Company EAD for sealing of all above mentioned devices (current and voltage transformers, trade and control electricity meters). All above was confirmed during site tour.	OK

	Verified Situation	Conclusion
<p>2.4. Is the accuracy of equipment used for monitoring sufficient and regularly controlled and calibrated in accordance with the registered monitoring plan?</p> <p>Check relevant of maintenance and calibration included in the monitoring plan</p> <p>Check relevance of laboratory analysis if included in the monitoring plan</p>	<p>Monitoring plan states that current and voltage transformers and the electricity meter of NEK are calibrated in accordance with the regulation of NEK. The order No A-412/16.08.2004 of the Chair of the Bulgarian Institute of Metrology states that above described equipment must be calibrated every two years. Same are the provisions of the KWP AD Management procedure rev 01/25.05.2010. Documents presented show that this requirement is fulfilled.</p>	OK
<p>2.5. Where the methodology provides different options (e.g. use of default values or on-site measurements), has it specified which option is used?</p>	NA	
<p>2.6. Are all data collected as part of monitoring archived electronically and kept at least for 2 years after the end of the last crediting period (Is this included in the monitoring plan)?</p>	<p>No specific provision in the monitoring plan under registered PDD with respect to electronic storage and retention period. In the company management procedure rev 01/25.05.2010 there are specific provisions for way of storage of the data (paper, electronic). All paper documents are scanned and stored in electronic form. Retention period is specified to be 2 years after finishing of crediting period. This is specified in company Management procedure.</p>	OK
Data management and reporting systems. Conformance with Monitoring Plan		
<p>2.7. Check monitoring and reporting procedures established in accordance with the monitoring plan.</p> <p>Are the monitoring results consistently recorded, reviewed and approved as stated in the PDD and the applied methodology?</p>	<p>Monitoring and reporting procedure as described in the monitoring plan includes provisions for monthly data generation on the basis of daily SCADA readings. On practice the data used for emission calculation are taken from protocols signed monthly by NEK EAD and KWP AD based on the monthly readings of the trade electricity meter. These monthly figures are compared with the daily data read from the trade meter and the control electricity meter as well as the data from SCADA system. This is explained in the monitoring report. The differences between the Scada data and the NEK invoices are due to internal losses and are around a 0.3%, between NEK data and KPW control meter the differences are insignificant and due to the different hour of the readings. The implemented approach although slightly different from the described in the PDD is considered reliable as the data are taken from calibrated measuring device, accepted to be used for trade purposes and covered by national legislation provisions.</p>	OK
<p>2.8. Reporting period: Defined?</p> <p>If monitoring period of a parameter more / less than a year is applied, check if the monitoring is in a complete and consistent manner?</p>	<p>The reporting period is defined – March 2008 – Dec 2009. This is reflected in the Monitoring report presented. 100 % monthly data based on Invoiced of NEK AD were reviewed. Data used for the calculations of emission reductions were confirmed.</p>	OK

	Verified Situation	Conclusion
<p>2.9. Check application of ER determination methods;</p> <p>Methods used Information/process flow Data transfer Data trails</p>	<p>The method used is described under 2.7 above.</p> <p>Shift operator records the reading of trade and control meters at midnight. Data is recorded manually and a form is filled. Data is entered by the Plant Manager in an electronic template and is sent to Chief Operating Officer daily. Monthly reports are prepared based on these readings and are compared with data sent by NEK EAD. Additionally monthly reports are generated from SCADA software and are compared with the above. Annual figures are prepared on this basis.</p>	OK
<p>2.10. Check data uncertainty when use estimates, default data and assumption not having been addressed by the approved methodology</p>	<p>Data uncertainty is checked on the basis of the calibration reports of the measuring devices. These are used of trade purposes and uncertainty is not considered to be an issue. Additionally there is established a mechanism to check data from the there sources – trade meter, control meter and SCADA software and explanation provided for the differences is considered to be reasonable (mainly related to difference in reading time and when data is recorded manually there are 12 tariffs to be read from one meter and this process takes some time).</p>	OK
<p>2.11. Check the calculation of emission reductions following the applied methodology</p> <p>Baseline emissions Project emissions Leakage Emission reductions of the project</p>	<p>$ER(tCO_2) = BE(tCO_2) = GEN(t) * CEF$</p> <p>CEF – 1.026 tCO₂/MWh – calculated ex-ante and fixed for the overall crediting period in accordance with implemented ACM0002, version 6</p> <p>100 % monthly invoiced data were checked for 2008 and 2009. Apart from CAR 1 (resolved) no issue was found.</p>	OK

	Verified situation	Conclusion
SECTION 3. Emission reductions		
<p>3-1. Has the calculation tool been correctly documented? Check its consistency and Formulae.</p> <ul style="list-style-type: none"> - Baseline emissions - Project emissions - Leakage - Calculation of emission reductions 	Sreadsheets were checked with respect to data and formula applied. Additionally separate calculation table was created. Data were compared and no errors were found.	OK
<p>3-2. Are complete set of data during the specified monitoring period available? If only partial data is available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, opt to either make the most conservative assumption theoretically possible in finalizing the verification report, or raise a request for deviation if appropriate. Refer to the corresponding section of the JI (UNFCCC) Verification and Certification Assessment procedure.</p>	Complete set of related data was available and presented.	OK
<p>3-3. Have Information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?</p>	Data generated from readings of trade meter, control meter and SCADA were cross-checked.	OK
<p>3-4. Have calculations of baseline emissions, project emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document?</p>	Formula, specified in the monitoring plan was followed. See CAR 1 (solved) also.	OK
<p>3-5. Have any assumptions used in emission calculations been justified?</p>	NA	
<p>3-6. Have appropriate emission factors, IPCC default values, and other reference values been correctly applied?</p>	CEF – 1.026 tCO ₂ /MWh – calculated ex-ante and fixed for the overall crediting period in accordance with implemented ACM0002, version 6. This has been subject to review under determination process. No remaining open issues in the final determination (dated 04.06.2010) report on the mater.	OK

	Verified Situation	Conclusion
SECTION 4: Management systems		
Operational and management structure		
4-1. Have responsibilities for monitoring described and specified?	Responsibilities for monitoring are described in the Monitoring plan, part of the PDD as well as in the Management procedure, rev.01/ 25.05.2010.	OK
4-2. Are the responsibilities and authorities for monitoring and reporting in accordance with those stated in the registered monitoring plan?	There are differences however as described in 1.10 above. The description in the MR of the management procedure was found to be valid and was confirmed during the site visit and interviews. Deviations from the description in the monitoring plan were not relevant and PP has justified the reasons for it.	OK
Quality control (QC) and quality assurance (QA)		
<p>4-3. Check QA/QC, management systems; Are procedures describe and specified in the MR? Are they consistently applied as described in the MP?</p> <ul style="list-style-type: none"> - Documented instructions, management manual - Documentation - Data archiving - Monitoring report - Cross-checking - Energy balance analysis (as relevant) - Internal audits/verification and management review 	<p>Management procedure, rev. 01/25.05.2010 was presented. The management procedure defines the responsibilities, and the data to be monitored and form of recording and retaining of the documentation. Calculation of emissions and preparation of monitoring report is also described. Internal auditing process is also presented in the procedure.</p> <p>No internal audit records were presented during the site visit on 08/06/2010. CAR 02 was issued on the matter. Based on presented evidence afterwards - Order to carry out internal audit 025/03.06.2010 issued by the General manager was presented, as well as Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list, the CAR was closed. A FAR has been opened in relation to this. This internal audit needs to be checked in the next verification.</p>	CAR 2/ OK FAR 1
4-4. Has the procedures for emergency and abnormal situation been established?	Emergency preparedness and response plan was presented dated October 2007. The plan covers identified as potential emergency situations.	OK
4-5. Has the system for qualification and training been established as relevant for the monitoring and management activities?	A procedure is established for induction training as well as for periodic training of personnel. Periodic training is related mainly to maintaining specific qualifications (for work with electricity above 1000 V). Qualification documents for the latter seen during site visit and programme and records for the induction training provided were presented.	OK

Monitoring Instrumentation: Electricity meter

Complete the following table for each meter or monitoring instrument:

	PDD Meter information	Verified Situation	Conclusion
ID in the PDD	Not specified	ID 07120767	OK
Data to be measured	Electricity	Electricity kWh	OK
Period of operating time	Not specified	2008-till present	OK
Instrument type	Not specified	AINRTAL-X	OK
Manufacturer, model and serial number	Not specified	ELSTER, AINRTAL-X, ID 07120767	OK
Specific location	Not specified	Control room	OK
Measurement unit	Not specified	kWh	OK
Calibration dates	Not specified	11.06.2007; Calibration reports of measuring transformers No 068-01/14.05.2009, 068-02/14.05.2009, 068-03/14.05.2009, 068-04/14.05.2009, 068-05/14.05.2009, 068-06/14.05.2009 issued by Bulgarian Institute for Metrology, Regional division Varna.	OK
Required calibration frequency	Not specified	2 years (as per National legislation)	OK
Reading frequency	Not specified	One daily at midnight	OK
Recording frequency	Not specified	One daily at midnight	OK
Trouble shooting			
Functionality			
Quality assurance			
Maintenance			
Key reporting risks			

	Verified Situation	Conclusion
SECTION 5. Environmental and social impacts		
Environmental Impacts		
5-1. If the monitoring plan includes the determination of environmental and/or social indicators, has the sustainable development indicators been monitored in accordance with the registered monitoring plan?	Environmental indicators to be monitored during project implementation are specified in the Environmental Impact Assessment decision No 2573/23.06.2005 issued by the Ministry of Environment and Water, Regional Inspectorate on Environment and Water – Varna. The decision was confirmed through court process with Decision No2411/20.02.2009 of the Supreme Administrative Court of the Republic of Bulgaria. Monitoring of ornithofauna, noise, electromagnetic level is required under the specified conditions.	OK
Environmental and social issues		
5-2. Check the environmental report, license, permit and compliance to the local environmental legislation (if relevant)	The operation of the wind farm is allowed on the basis Environmental Impact Assessment decision No 2573/23.06.2005 issued by the Ministry of Environment and Water, Regional Inspectorate on Environment and Water – Varna. The decision was confirmed through court process with Decision No2411/20.02.2009 of the Supreme Administrative Court of the Republic of Bulgaria.	OK

	Verified Situation	Conclusion
<p>5-3. Check monitoring of Environmental and Social Indicators (if relevant)</p> <ul style="list-style-type: none"> • Implementation of measures • Monitoring equipment • Quality assurance procedures • External data 	<p>An own monitoring plan should be prepared according to the EIA decision. Such a plan was presented (developed Nov. 2007). The monitoring report was coordinated with a letter of the Director of RIEW Varna dated 13.05.2008.</p> <p>Noise and electromagnetic field monitoring report for measurements carried out during 72-hour tests was presented. The report is dated April and May 2008. And a letter to submit the reports to RIEW Varna 210/02.06.2008</p> <p>For the purposes of monitoring of the bird activity in the project area a radar (with horizontal and vertical scanning options) was installed and seen during project site visit.</p> <p>With respect to monitoring of ornithofauna a report for conducted monitoring in 2005 and also the monitoring reports for the required one-year monitoring after start of operation and letters for submission of these reports to RIEW Varna were requested to be presented for the purposed of verification in a form of clarification request (see CL 03).</p> <p>The presented information consists of:</p> <ul style="list-style-type: none"> - Instruction for decreasing of the negative impact on flora and fauna in compliance with EIA decision 2573/25.06.2005 of RIEW Varna - Monthly reports for work carried out in July 2008, August 2008, September 2008, October/November 2008, December 2008, January 2009, February 2009, March 2009, April 2009, May 2009 and General report covering the overall period July 2008 – June 2009. The reports are prepared by representatives of the Institute of Zoology, Bulgarian Academy of Sciences. The reports are submitted to the RIEW for which letters to RIEW were presented as evidence. Additionally the reports from the previous studies carried out in autumn of 2004 and spring of 2005 were presented. <p>The presented information demonstrated that the requirements of EIA decision 2573/23.06.2005 with respect to monitoring of ornitofauna are fulfilled and no concerns are raised by the experts. CL 03 is closed.</p> <p>In order to demonstrate fulfilment of requirement with respect to waste management a contract 5/16.06.2008 with Titan Chistota OOD was presented (for municipal waste) and Contract 2/01.09.2009 with Dina-Trans 2008 EOOD for the cleaning of sewage sludge pit, and Contract dated 27.11.2009 with Geosim OOD for the used oils.</p>	CL 03/OK
5-4. Check contribution to sustainable development, comparing those expected in PDD and the actual status	NA	
5-5. Check issues with local stakeholders, claims, complaints, etc.	<p>Inspection report from representatives of Regional Inspectorate for Environment and Water 18047/08.10.2009; 13827/10.10.2008, 13077/11.09.2008, 12973/06.08.2008 were reviewed.</p> <p>Inspection reports were positive and no recommendations or specific actions to be initiated by the company were registered in the inspection reports. Based on verbal information provided by company representatives with whom interviews were held all inspections are based on complaints received in the Regional Inspectorate for Environment and Water and are not perform in a periodical way.</p>	OK

Records of On-Site Assessment and Interviews

	INFORMATION
1. Organization / individual	Kaliakra Wind Power AD
Date / Time	08/06/2010
Location	Kaliakra Wind Park, Balgarevo village, Kavarna municipality, Bulgaria
Person attended	<ul style="list-style-type: none"> - Zoya Tredafilova – representative of company management; - Borislav Petkov – O&M Manager; - Dimitar Stoev – Acting plant Manager; - Konstatin Georgiev – O&M assistant manager
Subjects	Project implementation and management, Site tour, Data management and reporting systems, Data verification, QA/QC, Management systems, Environmental and social issues, Issues with local stakeholders

Verification Findings Log

1. Grade / Reference:	CAR 01	2. Date:	08/06/2010	3. Status:	Closed
5. Finding: Electricity purchased from the National Electricity Company (NEK EAD) to cover internal needs during the periods when generated electricity on site is not sufficient to cover internal needs (i.e. when there is no export) is not reduced from the amounts of supplied electricity to the grid. The electricity data used for the calculation of emission reductions need to be corrected accordingly.					

Corrective Action Response Log (add extra rows as necessary)

Date: 10/06/2010	Response from PP: In the revision 2/ May 2010 of the Monitoring report the data is corrected. PPs have subtracted energy consumptions from electricity exports
Date: 10/06/2010	Evaluation Record / Further Action needed: Corrective action is implemented accordingly. CAR is closed.

6. Conclusion:

Recalculation of emission reduction is done accordingly. CAR is closed.

1. Grade / Reference:	CAR 02	2. Date:	08/06/2010	3. Status:	Closed
5. Finding: Section 9 of the Monitoring plan under the registered PDD, version 1.2(rev 1.0) dated 03.12.2009 requires internal audits to be carried out in accordance with developed Internal audit procedure. No records for performed internal audit were presented during the site visit on 08/06/2010.					

Corrective Action Response Log (add extra rows as necessary)

Date: 11/06/2010	Response from PP: Order to carry out internal audit 025/03.06.2010 issued by the General manager was presented, as well as Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list.
Date: 11/06/2010	Evaluation Record / Further Action needed: Presented evidence is sufficient to close the CAR if the internal audit is implemented. Therefore FAR 1 is open in relation to this issue.

6. Conclusion:

Order to carry out internal audit 025/03.06.2010 issued by the General manager was presented, as well as Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list. To open FAR 1.

* 1. Grading and Sequential Number of the finding* 2. Date of Original Finding 3. New, Open, Closed

1. Grade / Reference:	CL 01	2. Date:	08/06/2010	3. Status:	Closed
5. Finding: Regarding the project area in the PDD for Kaliakra Wind Power Project, version 1.2 (rev 1.0) dated 03.12.2009 it is specified that the surface of the project area is 2960 m ² and during the site visit it was seen that the surface is much greater.					

Corrective Action Response Log
(add extra rows as necessary)

Date: 08/06/2010	Response from PP: Three contracts were presented that were signed on 20.07.2004 between Kavarna municipality and Inos-1 Ltd (one of the owners of Kaliakra Wind Power AD) for the transferring of the right to construct over municipal terrains (three pieces of land 900 dha=90 ha each, thus total area estimated to be 270 ha).
Date: 08/06/2010	Evaluation Record / Further Action needed: Evidence presented is sufficient. No further action is needed. The unit for the surface in the PDD was misused since they forgot to put "x10 ³ m ² ". The small difference between 296 ha and 270 ha is not relevant.

6. Conclusion:

Based on provided evidence (Contracts between Kavarna municipality and project participant INOS-1 Ltd.) it was seen that information in PDD concerning project area is almost correct except in the misunderstanding with the units used. CL 01 is closed.

1. Grade / Reference:	CL 02	2. Date:	08/06/2010	3. Status:	Closed
5. Finding: In the PDD in section B.1: Description and justification of the baseline chosen under Step 1, "Additionality demonstration of the project": it is stated that average annual electricity generation through out project life is expected to be 79,284 MWh/year and also details are provided for the expected electricity tariff (changed 3 times during reporting period), the total project cost (confirmed on the basis of the data in the Engineering, Procurement and Construction Contract dated 2 October 2006). However, for the operational and maintenance cost it was found that planned annual O&M cost per year as per PDD differs significantly from the O&M costs reported for 2008 and 2009 in the Semi-annual operations reports for the second half of 2008 and 2009. As these data average electricity generation in MWh/year, electricity tariff, total project cost and O&M cost per year are used for the calculation of Internal Rate of Return used to demonstrate project additionality a clarification was requested to be provided on the matter.					

Corrective Action Response Log
(add extra rows as necessary)

Date: 11/06/2010	Response from PP: A recalculation of Internal Rate of Return (IRR) factor was presented using project implementation related figures. The recalculation shows that Project IRR remains below Equity IRR.
Date: 11/06/2010	Evaluation Record / Further Action needed: Evidence presented is sufficient. No further action is needed.

6. Conclusion:

A recalculation of Internal Rate of Return (IRR) factor was presented using project implementation related figures. The recalculation shows that Project IRR remains below Equity IRR. CL 02 is closed.

1. Grade / Reference:	CL 03	2. Date:	08/06/2010	3. Status:	Closed
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5. Finding: The operation of the wind park is allowed on the basis Environmental Impact Assessment decision No 2573/23.06.2005 issued by the Ministry of Environment and Water, Regional Inspectorate on Environment and Water – Varna. The decision was confirmed through court process with Decision No2411/20.02.2009 of the Supreme Administrative Court of the Republic of Bulgaria. Under the provisions of the EIA decision a monitoring of ornithofauna is required to be carried out for one year after construction and start of operation of the park. Monthly reports are needed to be submitted to the Regional Inspectorate for Environment and Water – Varna. The company is requested to submit evidence on fulfilment of these requirements.

Corrective Action Response Log
(add extra rows as necessary)

Date: 11/06/2010	Response from PP: The presented information consists of: - Instruction for decreasing of the negative impact on flora and fauna in compliance with EIA decision 2573/25.06.2005 of RIEW Varna - Monthly reports for work carried out in July 2008, August 2008, September 2008, October/November 2008, December 2008, January 2009, February 2009, March 2009, April 2009 and General report covering the overall period July 2008 – June 2009. The reports are prepared by representatives of the Institute of Zoology, Bulgarian Academy of Sciences. The reports are submitted to the RIEW for which letters to RIEW were presented as evidence. Additionally the reports from the previous studies carried out in autumn of 2004 and spring of 2005 were presented. The presented information demonstrated that the requirements of EIA decision 2573/23.06.2005 with respect to monitoring of ornithofauna are fulfilled and no concerns are raised by the experts.
Date: 11/06/2010	Evaluation Record / Further Action needed: Evidence presented is sufficient. No further action is needed.

6. Conclusion:

The presented information demonstrated that the requirements of EIA decision 2573/23.06.2005 with respect to monitoring of ornithofauna are fulfilled and no concerns are raised by the experts. CL 03 is closed.

1. Grade / Reference:	FAR 01	2. Date:	08/06/2010	3. Status:	Pending next verification
5. Finding: PPs prepare an internal audit for the next months, according to the internal audit order 025/03.06.2010 issued by the General manager, as well as the Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list. The results of this internal audit need to be reviewed and check in the next verification activity of the wind farm.					
Corrective Action Response Log (add extra rows as necessary)					
Date: 11/06/2010	Response from PP: Internal audit order 025/03.06.2010 issued by the General manager, as well as the Internal audit plan 03.06.2010 and Internal Audit Conformance/ Non-conformance list.				
Date: 11/06/2010	Evaluation Record / Further Action needed: Review of the results in the next periodic verification.				
6. Conclusion:					