DETERMINATION REPORT
LLC "WIND POWER"

DETERMINATION OF THE "CONSTRUCTION OF "BOTIEVSKA WPP" POWER PLANT WITH 200 MW CAPACITY"

REPORT NO. UKRAINE-DET/0643/2012

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BUREAU VERITAS CERTIFICATION

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01/10/2012	Bureau Veritas Certification Holding SAS
Client:	**Client ref.:**
LLC "Wind Power"	Guerman Ainbinder

Summary:

Bureau Veritas Certification has made the determination of the "Construction of "Botievska WPP" power plant with 200 MW capacity" project of LLC "Wind Power" located between Botieve and Primorskiy Posad villages within the central-southern Ukraine, Zaporizhzhya region on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the determination process is a list of Clarification and Corrective Action Requests (CL and CAR), presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project correctly applies JI specific approach with the elements of CDM methodology ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" version 13.0 and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.:	Subject Group:
Ukraine-det/0643/2012	JI

Project title:
"Construction of "Botievska WPP" power plant with 200 MW capacity"

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Bureau Veritas Certification Holding SAS

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1 INTRODUCTION

LLC “Wind Power” has commissioned Bureau Veritas Certification to determine its JI project “Construction of “Botievska WPP” power plant with 200 MW capacity” (hereafter called “the project”) is located between Botieve and Primorskiy Posad villages within the central-southern Ukraine, Zaporizhzhya region.

This report summarizes the findings of the determination of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

The determination serves as project design verification and is a requirement of all projects. The determination is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project’s compliance with relevant UNFCCC and host country criteria are determined in order to confirm that the project design, as documented, is sound and reasonable, and meets the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reduction units (ERUs).

UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

1.2 Scope

The determination scope is defined as an independent and objective review of the project design document, the project’s baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The determination is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Determination team

The determination team consists of the following personnel:

Kateryna Zinevych
Bureau Veritas Certification Team Leader, Climate Change Verifier

Sergii Verteletskyi

Bureau Veritas Certification, Climate Change Verifier

Denis Pishchalov

Bureau Veritas Certification , Financial Specialist

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal reviewer

Julia Berdnikova
Bureau Veritas Certification, Technical specialist

2 METHODOLOGY

The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a determination protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of determination and the results from determining the identified criteria. The determination protocol serves the following purposes:

- It organizes, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent determination process where the determiner will document how a particular requirement has been determined and the result of the determination.

The completed determination protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Project Design Document (PDD) submitted by Global Carbon B.V. and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for users of the joint implementation project design document form, Approved CDM methodology and/or Guidance on criteria for baseline setting and monitoring, Kyoto Protocol, Clarifications on Determination Requirements to be Checked by an Accredited Independent Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, Global Carbon B.V. revised the PDD and resubmitted it on 10/10/2012.

The determination findings presented in this report relate to the project as described in the PDD versions 01 and version 02.

2.2 Follow-up Interviews

On 05/09/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Global Carbon B.V. and LLC "Wind Power" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
LLC "Wind Power"	– Project history, – Project approach, – Project boundary, – Implementation schedule, – Organizational structure, – Responsibilities and authorities, – Training of personnel, – Quality management procedures and technology, – Rehabilitation/Implementation of equipment (records), – Metering equipment control, – Metering record keeping system, database, – Technical documentation, – Monitoring plan and procedures, – Permits and licenses, – Local stakeholder's response.
CONSULTANT: Global Carbon B.V.	– Baseline methodology, – Monitoring plan, – Additionality proofs, – Calculation of emission reduction

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

If the determination team, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI

project requirements, it will raise these issues and inform the project participants of these issues in the form of:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake in the published PDD that is not in accordance with the (technical) process used for the project or relevant JI project requirement or that shows any other logical flaw;

(b) Clarification request (CL), requesting the project participants to provide additional information for the determination team to assess compliance with the JI project requirement in question;

(c) Forward action request (FAR), informing the project participants of an issue, relating to project implementation but not project design, that needs to be reviewed during the first verification of the project.

The determination team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily resolve the issues raised, if any, and should conclude its findings of the determination.

To guarantee the transparency of the determination process, the concerns raised are documented in more detail in the determination protocol in Appendix A.

3 PROJECT DESCRIPTION

The project is aimed at achieving GHG emission reductions by substituting the carbon intensive electricity from Ukrainian power grid with renewable energy produced by new wind power plant (WPP) which is built as a project activity. The new WPP with planned installed capacity of 200 MW is constructed in Zaporizhzhya region of Ukraine. It is planned to install in total 65 wind turbines 3.075 MW each. The project is realized in two stages which consist of installation of 30 and 35 wind turbines.
The project envisages the installation of 65 advanced wind turbines (with capacity of 3.075 MW) including construction of electricity infrastructure (WPP substation, cable lines, overhead transmission lines), maintenance base as well as access roads where required. The project site in Priazovskiy Region of Zaporizhzhya oblast of Ukraine is considered promising for wind energy generation due to favorable wind conditions and limited environmental impact. The purpose of the project is to generate environmentally friendly electricity with “zero” GHG emissions. The project will also support the Ukrainian Government’s objectives of:

- Facilitating and encouraging the development of new renewable energy sources with one of the key renewable technologies – wind.

- Reducing reliance of electricity and fossil fuel imports and developing indigenous power resources which will additional economic benefits.

Therefore, in the project scenario the electricity produced by this WPP will partly substitute the electricity from the Ukrainian electricity grid, decreasing respective carbon emissions from fossil fuel combustion at thermal power plants.
Overall, the realization of the project is environmentally and socially beneficial. The technological process is environmentally sound and does not require the use of hazardous materials. Operation of the project will lead to creation of new work places which will contribute to economic development of the region.

The identified areas of concern as to project description, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR01 – CAR03 and CL01).

4 DETERMINATION CONCLUSIONS

In the following sections, the conclusions of the determination are stated.

The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are described in the Determination Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 15 Corrective Action Requests, 03 Clarification Requests.

4.1 Project approvals by Parties involved (19-20)

The project has been officially presented for endorsement to the Ukrainian authorities. Letter of Endorsement # 2150/23/7 is issued by the National Environmental Investment Agency of Ukraine from 14/12/2010.

As for the time being no written approval for the project was issued by Ukrainian Party. After receiving Determination Report from the Accredited Independent Entity the project documentation will be submitted to the Ukrainian Designated Focal Point (DFP) which is State Environmental Investment Agency of Ukraine, for receiving a Letter of Approval.

The identified areas of concern as to project approvals, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR 08, CAR 09).

4.2 Authorization of project participants by Parties involved (21)

The official authorization of each legal entity listed as project participant in the PDD by Parties involved will be provided in the written project approvals (refer to 4.1 above).

No outstanding issues were raised.

4.3 Baseline setting (22-26)

The PDD explicitly indicates that using a methodology for baseline setting and monitoring developed in accordance with appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline. Moreover, JI specific approach contains elements of the approved CDM methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” version 13.0.0.

The PDD provides a detailed theoretical description in a complete and transparent manner, as well as justification, that the baseline is established:

(a) By listing and describing the following plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one:

- **Continuation of the current situation**
  In Ukraine, thermal power plants (oil, natural gas, coal) account for nearly 46% of total electricity production, with nuclear power generating another 48%, while other sources, mainly hydroelectric power plants, make up the remaining 6.0%. The total installed generation capacity is 53,1 GW, which is more than enough to satisfy the current demand for electricity, albeit a big share of the thermal capacity is old and outdated (around 40 years in operation, on average) and is to be replaced rather in the nearest future. However, for some time, the Ukrainian power system may see no major changes in terms of new capacity being installed since the large overcapacity of thermal power plants is still operating in the system. This alternative suggests that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants.

- **The proposed project activity undertaken without being registered as a JI project activity**
  Ukraine has a significant wind potential which is currently barely exploited. This alternative suggests that the proposed wind park will be constructed without developing it as a JI project.

- **Construction of a new coal-fired power plant**

As Ukraine has substantial coal deposits, it is possible to replace existing fossil fuel plants with the new ones. However, the Ukrainian coal is costly to extract. It also requires transportation and preparation of coal. Coal fired power plant will also experience pressure from environmental groups as the large overcapacity of coal power plants exists in Ukraine. This alternative suggests that a new coal fired power plant will be constructed to produce electricity generated by the proposed project activity.

(b) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

a. Sectoral reform policies and legislation:

On the 28th of September, 2008, the Ukrainian parliament passed laws introducing “green tariff” in Ukraine. “Green tariff” was defined as a special tariff at which electricity produced from the alternative sources of energy must be purchased. This tariff exceeded several times the purchase price for electricity produced from traditional sources of energy. The introduced legislation, however, was vague and lacked the practical mechanisms for implementation. The suggested level of “green tariff” also did not allow for the reasonable return on possible investment. Therefore, on April, 1, 2009 the changes in the “green tariff” legislation were adopted. The changes introduced state guarantees by 2030 for power plants utilizing the “green tariff” and mandatory adjustment of the “green tariff” as a result of the fluctuation of the euro exchange rate.

b. Economic situation/growth and socio-demographic factors in the relevant sector as well as resulting predicted demand. Suppressed and/or increasing demand that will be met by the project can be considered in the baseline as appropriate (e.g. by assuming that the same level of service as in the project scenario would be offered in the baseline scenario):

Demand for electric energy in Ukraine is expected to grow significantly according to the updated Energy Strategy of Ukraine for the period until 2030. However, main investments required to meet this demand will be channeled into the upgrades of transmission lines and rehabilitation of the thermal power plants and nuclear power plants.

c. Availability of capital (including investment barriers):

Ukraine has always been considered a high-risk country for investments and doing business. Risks of doing business in Ukraine significantly impact the availability of capital in the country. Commercial loan rates in EURO in Ukraine for the period of 3 years fluctuated in January 2010 – June 2012 between 3.9 % and 9.8% according to the official statistics of the National Bank of Ukraine. For the reference similar rates in Germany for this period fluctuated between 3.3% and 1.3% according to the European Central Bank. Cost of debt financing in Ukraine is at least twice as high as in the Eurozone. The risks of investing into Ukraine are additionally confirmed by the country ratings provided by the Moody's international rating agency and the associated country risk premium.

d. Local availability of technologies/techniques, skills and know-how and availability of best available technologies/techniques in the future:

The proposed wind turbine generators are of 3.075 MW scale. Most of the country's installed wind power is based on the 107.5 kW and 600 kW wind turbines that were produced locally under licenses from American and European manufacturers. Local production covered the needs of the governmental wind power development program that directly financed construction of the wind parks in Ukraine. Production of the larger single capacity wind turbines was attempted but never got out of the conceptual planning phase. However, Ukraine has significant industrial potential for the production of conventional thermal power technologies and nuclear power technologies. General electric networks technologies, transformer production, cabling manufacturing is present in the country.

e. Fuel prices and availability:

In terms of fuel, Ukraine's primary energy consumption pattern has been historically dominated by natural gas 41% compared to the average of 21% for other world economies. In the 2010-2015 period Ukraine's average oil consumption is expected to grow on 14%, coal – on 13%, uranium – on 5%. Only supply of coal is not dependent on foreign sources, all other fuels are mostly imported. Prices are on the international level for oil and oil products and the price of the natural gas imported from Russia has been pushed to the level of average European prices. The price of coal in Ukraine is low and does not compensate production costs in most of the cases.

f. National and/or sub national expansion plans for the energy sector, as appropriate:

The Energy Strategy of Ukraine for the period until 2030 does not emphasize the substantial expansion of alternative energy and wind energy use in particular as the key growth and development area. The increasing demand for electric energy will be met by the commissioning of new and capacity improvements on

the existing nuclear and thermal power plants mostly according to this document.

g. National and/or sub national forestry or agricultural policies, as appropriate:

According to Ukrainian Fifth National Communication on Climate Change, land distribution by types of land-use in Ukraine is the following: agricultural land (71%), forests (17.5%), built areas (4.1%), territories covered with water (4%), open wet lands (1.6%) and other (1.8%). Main regulatory documents in this field in Ukraine are Forestry Reformation and Development Concept, State Program “Forests of Ukraine”; Strategy for land-use and land-distribution in Ukraine is absent. The project is realized at numerous small plots of land, allocation of which was approved by the appropriate governmental institutions.

No outstanding issues were raised

4.4 Additionality (27-31)

Traceable and transparent information showing that the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of anthropogenic emissions by sources of GHGs was provided.

At the time of this document completion the most recent version of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board is version 06 and it is used to demonstrate additionality of the project activity. All explanations, descriptions and analyses are made in accordance with the selected tool.

The PDD provides a justification of the applicability of the approach with a clear and transparent description, as per item 4.3 above.

Additionality proofs are provided in section B.2 of the PDD.

Additionality is demonstrated appropriately as a result of the analysis using the approach chosen.

The identified areas of concern as to additionality, project participants response and Bureau Veritas Certification’s conclusion are described in Appendix A to Determination report (refer to CAR 11 - CAR 13).

4.5 Project boundary (32-33)

The project boundary defined in the PDD, which encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

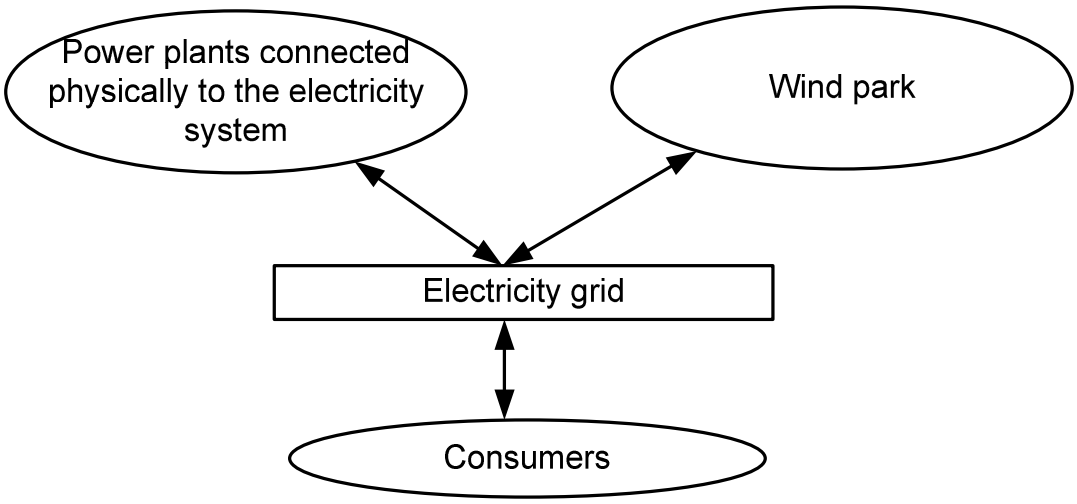
(i) Under the control of the project participants;

(ii) Reasonably attributable to the project; and

(iii) Significant, i.e., as a rule of thumb, would by each source account on average per year over the crediting period for more than 1 per cent of the annual average anthropogenic emissions by sources of GHGs, or exceed an amount of 2,000 tonnes of CO2 equivalent, whichever is lower.

The project boundary for this particular project is defined in line with the approach chosen regarding the baseline setting. Elements of the ACM0002 were used to define the project boundary. Applicability of the ACM0002 is discussed in the section B.1. of this PDD. According to ACM0002 the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the JI project power plant is connected to.

Project boundary is defined by the following figure:



The greenhouse gases and emission sources included in or excluded from the project boundary are shown in the table below:

Source		Gas	Included?	Justification/Explanation
Baseline	CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity	CO_2	Yes	Main emission source
		CH_4	No	Excluded as minor emission source per ACM0002.
		N_2O	No	Excluded as minor emission source per ACM0002.
Project activity	No sources			There are no sources of project emissions for the wind power plants according to ACM0002.

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD

No outstanding issues were raised.

4.6 Crediting period (34)

The PDD states the starting date of the project as the date on which the real action of the project began, and the starting date is 16/04/2011, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 21 years and 11 months.

The PDD states the length of the crediting period in years and months, which is 21 years and 11 months, and its starting date as 01/11/2012, which is on the date the first emission reductions generated by the project.

The PDD states that the crediting period for the issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.

The PDD states that the extension of its crediting period beyond 2012 is subject to the host Party approval, and the estimates of emission reductions or enhancements of net removals are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

The identified areas of concern as to crediting period, project participants response and Bureau Veritas Certification's conclusion are described in Appendix A to Determination report (refer to CAR 14 and CL 02).

4.7 Monitoring plan (35-39)

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach was the selected.

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as :

- quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the JI project activity;

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. are clearly connected with the effect to be measured), and that provide a transparent picture of the emission reductions to be monitored such as :

- specific emission factor for grid-connected thermal power plants electricity generation;

The monitoring plan draws on the list of standard variables indicated in appendix B of “Guidance on criteria for baseline setting and monitoring” developed by the JISC, such as baseline emissions BE_y , project emissions PE_y, emission reductions ER_y;

The monitoring plan explicitly and clearly distinguishes data and parameters that are monitored throughout the crediting period, such as :

1. Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the JI project activity in period;

2. Specific emission factor for grid-connected thermal power plants electricity generation;

ACM0002 contains the monitoring methodology, which requires that all data collected as part of monitoring should be archived electronically and be kept at least for 2 years after the end of the last crediting period. 100% of the data should be monitored if not indicated otherwise in the sections below. All measurements should be conducted with calibrated measurement equipment according to relevant industry standards.
In Ukraine all large scale electricity producers are obliged to have Automated System for Commercial Metering of Electricity (ASCME). This system allows metering of all electricity delivered to the grid and consumed from the grid also allowing for transparent calculation of the net amount of electricity delivered to the grid. Detailed specifications of this system are provided by the main operator of the wholesale electricity market of Ukraine – State Enterprise “Energorynok”.

The project activity will use the following option - monitoring of the emissions in the project scenario and the baseline scenario.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions and project emissions or direct monitoring of emission reductions from the project, leakage, as appropriate.

Project emissions

According to the ACM0002 for the wind power generation project activities

$PE_y=0$

Where:
PE_y - Project emissions in period *y* (tCO_2e);

Baseline emissions

$BE_y=EG_{PJ,y} \cdot EF_{grid,produced,y}$

Where:
BE_y - Baseline emissions in period *y* (tCO_2e);
$EG_{PJ,y}$ - Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the JI project activity in period *y* (MWh);
$EF_{grid,produced,y}$ - Specific CO_2 emission factor for grid-connected thermal power plants electricity generation (tCO_2/MWh);

Emission reductions

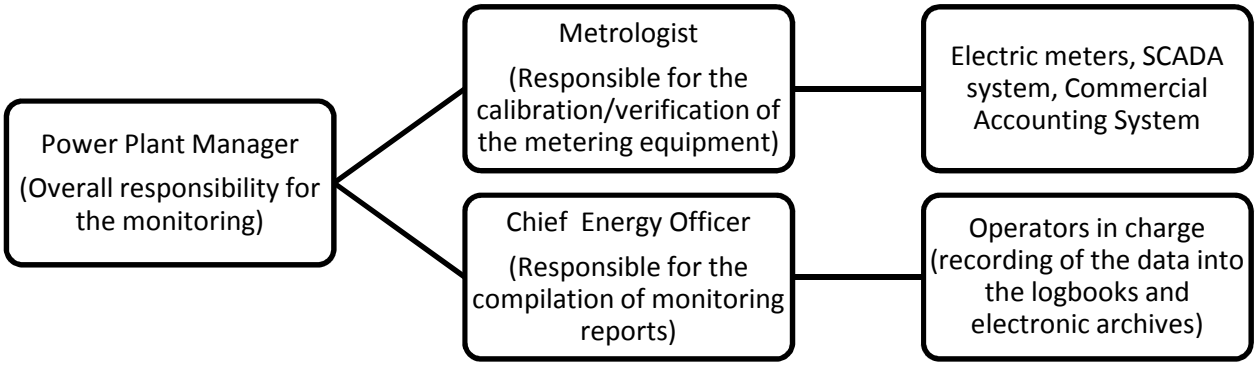
According to the ACM0002 emission reductions are calculated as follows:

$ER_y = BE_y - PE_y$

Where:
ER_y - Emission reductions in period *y* (tCO_2e);
BE_y - Baseline emissions in period *y* (tCO_2e);
PE_y - Project emissions in period *y* (tCO_2e);

The monitoring plan presents the quality assurance and control procedures for the monitoring process. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.
The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities. It will be executed within the existing operational and management structure of the company. The monitored parameters will be cross-checked with the data from the automated system of

commercial accounting of the facility. Data from the Supervisory Control and Data Acquisition system will also be used to check the results (see figure below).



On the whole, the monitoring plan reflects good monitoring practices appropriate to the project type.

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature etc.) but not including data that are calculated with equations.

The monitoring plan indicates that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.

The identified areas of concern as to monitoring plan, project participants' response and BVC's conclusion are described in Appendix A, Table 2 (refer to CAR 15, CL 03).

4.8 Leakage (40-41)

According to the ACM0002 no leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, and transport). These emissions sources are neglected.

No outstanding issues were raised.

4.9 Estimation of emission reductions or enhancements of net removals (42-47)

The PDD indicates assessment of emissions in the baseline scenario and in the project scenario as the approach chosen to estimate the emission reductions generated by the project.

The PDD provides the ex-ante estimates of:

(a) Emission reductions from the project (within the project boundary), which are 22257 tonnes of CO_2eq within the first commitment period of the Kyoto Protocol and 10761543 after the first commitment period of the Kyoto Protocol (2013 - 2034);

(b) Leakage are absent in this project;

The estimates referred to above are given:

(a) On annual basis;

(b) From 01/11/2012 to 30/09/2034, covering the whole crediting period;

(c) On a source-by-source;

(d) For each GHG gas;

(e) In tonnes of CO_2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol;

The formula used for calculating the estimates referred above, which are provided in section D of the PDD, are consistent throughout the PDD.

For calculating the estimates referred to above, key factor, such us Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the JI project activity in period influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as power meters and are clearly identified, reliable and transparent.

Emission factor, such as specific CO2 emission factor for grid-connected thermal power plants electricity generation was selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The estimation referred to above is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The estimates referred to above are consistent throughout the PDD.

The annual average of estimated emission reductions over the crediting period is calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period, and multiplying by twelve.

The PDD, on its item 2.0, includes an illustrative ex ante emissions calculation.

No outstanding issues were raised.

4.10 Environmental impacts (48)

The PDD lists and attaches documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party.

First stage of EIA has been done following the strict environmental guidelines of the Ukrainian State Construction Standard DBN A.2.2.-1-200343 (Title: "Structure and Contents of the Environmental Impact Assessment Report (EIA) for Designing and Construction of Production Facilities, Buildings and Structures"). Wind power plants with internal electricity transmission cables are not included in the list of types of activities or facilities which present an increased environmental hazard. The operation of WPP with internal electricity transmission lines does not produce waste and does not cause particle or liquids emissions into the environment, and does not result in non-reversible or critical changes in the atmo-, hydro-, or lithospheres.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party, if the analysis referred to above indicates that the environmental impacts are considered not significant by the host Party. For detailed information see section F of the PDD version 2.0.

No outstanding issues were raised

4.11 Stakeholder consultation (49)

No negative comments were received during the public hearings. PDD will be made publicly available for the global stakeholder meeting commenting period and any comments received will be taken into account.

No outstanding issues were raised

4.12 Determination regarding small scale projects (50-57)

Not applicable

4.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64)

Not applicable

4.14 Determination regarding programmes of activities (65-73)

Not applicable

5 SUMMARY AND REPORT OF HOW DUE ACCOUNT WAS TAKEN OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES

No comments, pursuant to paragraph 32 of the JI Guidelines, were received.

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Construction of "Botievska WPP" power plant with 200 MW capacity" Project in Ukraine. The determination was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The determination consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

Project participant/s used the latest tool for demonstration of the additionality. In line with this tool, the PDD provides investment analysis to determine that the project activity itself is not the baseline scenario.

Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 2.0 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The review of the project design documentation versions 1.0, 2.0 and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

The determination is based on the information made available to us and the engagement conditions detailed in this report.

7 REFERENCES

Category 1 Documents:
Documents provided by Global Carbon B.V. that relate directly to the GHG components of the project.

/1/ Project Design Document "Construction of "Botievska WPP" power plant with 200 MW capacity" version 1.0 dated 13/08/2012
/2/ Project Design Document "Construction of "Botievska WPP" power plant with 200 MW capacity" version 2.0 dated 10/10/2012
/3/ Emission reductions calculation spreadsheet: "20120815_PDD_ER_BotievskaWP_ver02_revIP_final" version 1.0 dated 13/08/2012
/4/ Emission reductions calculation spreadsheet: "20120815_PDD_ER_BotievskaWP_ver02_revIP_final" version 2.0 dated 10/10/2012
/5/ Investment analysis calculation spreadsheet "20120817_CF_Botievskiy_WPP_en_ver 2 0_OM" version 1.0 dated 13/08/2012
/6/ Investment analysis calculation spreadsheet "20120817_CF_Botievskiy_WPP_en_ver 2 0_OM" version 2.0 dated 10/10/2012
/7/ Letter of Endorsement № 2150/23/7 dated 14/12/2010 on the JI project "Construction of "Botievska WPP" power plant with 200 MW capacity", issued by National Environmental Investment Agency of Ukraine

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

/1/ Photo - Portable station for cement production
/2/ Photo – Hoisting crane
/3/ Photo – Cable bundle
/4/ Photo - Wind turbine Vestas V112-3.0 MW
/5/ Photo – General view of facility
/6/ Photo – Containers for constitutive elements
/7/ Photo – General view of substation (within the project)
/8/ Photo – Shovel field engine
/9/ Authorized order # 6 dated 28/08/2012 on conducting work with high risk for the health
/10/ Authorized order # 5 dated 23/08/2012 on conducting work with high risk for the health
/11/ Photo – general view of wind power plant "Botievska WPP"
/12/ Photo – Data base center of wind power plant "Botievska WPP"
/13/ Photo – Gas insulated power switches
/14/ Photo – Oil-cooled high voltage transformer

/15/ Letter of Endorsement # 2150/23/7 dated 14/12/2010 for JI project "Construction of "Botievska WPP" power plant with 200 MW capacity"
/16/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50090652 (factory calibration – May 2012)
/17/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50090653 (factory calibration – May 2012)
/18/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50090654 (factory calibration – May 2012)
/19/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50090655 (factory calibration – May 2012)
/20/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093445 (factory calibration – May 2012)
/21/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093446 (factory calibration – May 2012)
/22/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093447 (factory calibration – May 2012)
/23/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093448 (factory calibration – May 2012)
/24/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093449 (factory calibration – May 2012)
/25/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093450 (factory calibration – May 2012)
/26/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093451 (factory calibration – May 2012)
/27/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093452 (factory calibration – May 2012)
/28/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093453 (factory calibration – May 2012)
/29/ Passport on electric meter type ZMD405CR440457C2S3, serial # 50093454 (factory calibration – May 2012)
/30/ Project documentation on "Construction of "Botievska WPP" power plant with 200 MW capacity", vol. # 1
/31/ EIA of the project "Construction of "Botievska WPP" power plant with 200 MW capacity"
/32/ Partial site hand-over act dated 10/07/2012
/33/ Partial site hand-over act dated 06/08/2012
/34/ Partial site hand-over act dated 30/05/2012
/35/ Partial site hand-over act dated 20/06/2012
/36/ Land renting agreement dated 16/04/2010
/37/ Order # 411 dated 16/04/2010 on filling up of land renting agreement
/38/ Agreement # 543 dated 16/06/2012 on temporary energy supply without metering devices

/39/ Act of acceptance # 1 dated 05/06/2012
/40/ Act of acceptance # 1 for May 2012
/41/ Act of acceptance # 3 for May 2012
/42/ Act of acceptance # 4 for May 2012
/43/ Act of acceptance # 5 for May 2012
/44/ Act of acceptance # 6 for May 2012
/45/ Act of acceptance # 6 for May 2012
/46/ Act of acceptance # 7 for May 2012
/47/ Act of acceptance # 8 for May 2012

Persons interviewed:
List persons interviewed during the determination or persons that contributed with other information that are not included in the documents listed above.

/1/ Olga Monchak - JI Consultant, Global Carbon B.V.

/2/ Natallia Belskaya - JI Consultant, Global Carbon B.V.

/3/ Andriy Fateev - Lead Analyst, LLC "Wind Power"

/4/ Andriy Gurov – Chief Power Engineer, Botievska WPP

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APPENDIX A: DETERMINATION PROTOCOL

BUREAU VERITAS CERTIFICATION HOLDING SAS

Check list for determination, according JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	Yes, the title of the project is "Construction of Botievska WPP" with 200 MW capacity"	OK	OK
-	Is the sectoral scope to which the project pertains presented?	Yes, the sectoral scope is 1: energy industries (renewable/ non – renewable sources)	OK	OK
-	Is the current version number of the document presented?	Yes, the current version is 1.0	OK	OK
-	Is the date when the document was completed presented?	Yes, the document was completed on 13/08/2012	OK	OK
Description of the project				
-	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of the project; b) Baseline scenario; and c) Project scenario (expected outcome,	a) Situation existing prior the starting date of the project is briefly provided in section A.2 of the PDD. b) In the baseline scenario it is assumed that the common practice will continue and the most of electricity consumption of Ukraine shall be supplied from the existing generation power plants	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	including a technical description)?	on the grid. c) The project envisages the installation of 65 advanced wind power turbines (with capacity of 3.075 MW).		
-	Is the history of the project (incl. its JI component) briefly summarized?	Before project implementation, territories under project boundary were used for agricultural purposes. The idea of wind park was under discussion from 2009. Substantial investments needed for purchase and installation of wind turbines delayed the beginning of the project. The frames of Botievska WPP were approved, and technical conditions for temporary connection of Botievska WPP 1 stage to Ukrainian unified electricity system were received in July of 2011.	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	LLC "Wind Power" – Ukraine (Host party) Global Carbon – The Netherlands	OK	OK
-	Is the data of the project participants presented in tabular format?	Yes, the data of the project participants is presented in tabular format	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	Yes, contact information is provided in Annex 1 of the PDD.	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	Yes, it is indicated that Ukraine is a host Party	OK	OK
Technical description of the project				
Location of the project				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Zaporizhzhya region	OK	OK
-	City/Town/Community etc.	Between Botieve and Primorskiy Posad village	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	Geographical coordinates of the project site are +46° 38' 7.90" E +35° 50' 9.09" N.	OK	OK
Technologies to be employed, or measures, operations or actions to be implemented by the project				
-	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	The project will implement advanced turbines of with 3.075 MW capacity produced by Danish wind turbine manufacturer Vestas A/S. CAR 01 Please provide passports on wind turbines implemented in the project. CAR 02 Taking into account that 65 wind turbines are going to be installed in “Botievska WPP” the highest possible capacity fo park is 65 *3.075 = 199,875 MW. Hence, expression “at least” in section A.4.2 of the PDD should be changed on “up to” CL 01 It is stated in the PDD that V112-3.0 MW turbine is designed for low and medium speed sites. Please clarify how it was identified that project site has	CAR 01 CAR 02 CL 01 CAR 03	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		mentioned above characteristics. CAR 03 It is stated in Table 1. Schedule of project realization that turbines lifetime is 20 years. Please provide documents that clearly identify this figure.		
Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances				
-	Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	Emission reductions are generated by the project through the displacement of grid electricity that is associated with the CO_2 emissions in fossil fuel fired power plants by the greenhouse gas emission free electricity generated by the wind power plant. CAR 04 According to excel calculation spreadsheet years 2012 and 2032 are ordinary years, but indeed, they are leap years. Please make appropriate corrections. CAR 05 Please use value 199,875 MW of installed capacity. Taking into account that value rounded to nearest integer, the result of 20 years will give	CAR 04 CAR 05 CAR 06 CAR 07	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		up to 1,5 % of not generated capacity. CAR 06 Please provide data that support the value of efficiency of wind turbines. CAR 07 Please add title and version of the MR to excel file "20120815_PDD_ER_BotievskaWP_ver02_revIP_ final"		
-	Is it provided the estimation of emission reductions over the crediting period?	Yes, the estimation of emission reductions over the crediting period is provided	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO2e?	The estimated annual reduction for the chosen credit period is provided in tCO_2e	OK	OK
-	Are the data from questions above presented in tabular format?	Yes, the data from questions above presented in tabular form	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	Yes, the length of the crediting period is indicated.	OK	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO2 equivalent provided?	Estimates of total as well as annual and average annual emission reductions in tonnes of CO_2 equivalent are provided	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided	CAR 08 The Letters of Approvals from parties involved are	CAR 08 CAR 09	Pending OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	written project approvals?	absent. CAR 09 Please provide reference on LoE # 2150/23/7 issued by the National Environmental Investment Agency of Ukraine from 14/12/2010		
19	Does the PDD identify at least the host Party as a "Party involved"?	Yes, Ukraine is the host Party.	OK	OK
19	Has the DFP of the host Party issued a written project approval?	See CAR 08 above	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	See CAR 08 above	Pending	Pending
Authorization of project participants by Parties involved				
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: − A written project approval by a Party involved, explicitly indicating the name of the legal entity? or − Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	See CAR 08 above	Pending	Pending
Baseline setting				
22	Does the PDD explicitly indicate which	PDD explicitly indicates JI specific approach with	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	of the following approaches is used for identifying the baseline? − JI specific approach − Approved CDM methodology approach	the elements of approved CDM methodology ACM0002		
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	A detailed theoretical description in a complete and transparent manner is provided for the applied JI specific approach. It includes: - an in-depth justification of the baseline chosen in accordance with the Guidance on Criteria for Baseline Setting and Monitoring (version 02); - detailed theoretical description of the baseline methodology in a complete and transparent manner in accordance with the approved consolidated baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid connected electricity generation from renewable sources” Version 13.0.0”; - an assessment of applicability of the methodology ACM0002 is chosen for the baseline setting.	OK	OK
23	Does the PDD provide justification that the baseline is established:	PDD provides justification that the baseline is established:	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? − Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	(a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one; (b) Taking into account relevant national and/or sectoral policies and circumstance; (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors; (d) Taking into account of uncertainties and using conservative assumptions; (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure; (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate;		
24	If selected elements or combinations of	The elements of approved CDM methodology	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” Version 13.0.0” are used.		
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	Specific emission factor for grid-connected thermal power plants electricity generation.	OK	OK
Approved CDM methodology approach only				
26 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	Not applicable	Not applicable	Not applicable
26 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	Not applicable	Not applicable	Not applicable
26 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	Not applicable	Not applicable	Not applicable
26 (c)	Are all explanations, descriptions and analyses pertaining to the baseline in	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the PDD made in accordance with the referenced approved CDM methodology?			
26 (d)	Is the baseline identified appropriately as a result?	Not applicable	Not applicable	Not applicable
Additionality				
JI specific approach only				
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent	The most recent version of the "Tool for the demonstration and assessment of additionality" approved by the CDM Executive Board is used to demonstrate additionality.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	The applicability of the ACM0002 is assessed and justified in Section B.1. of the PDD	OK	OK
29 (b)	Are additionality proofs provided?	Yes, additionality proofs are provided.	OK	OK
29 (c)	Is the additionality demonstrated appropriately as a result?	CAR 10 Reference # 18 does not work. Please correct it. CAR11 The developer's financial model accounts for the period of 2011-2021. Unfortunately it includes only seven full years of WPP operation which is not sufficient to make conclusion regarding project financial efficiency taking into account expected lifetime period of 20 years. I kindly ask you to extend the time horizon of the financial model to at least year 2014 included. CAR12	CAR10 CAR11 CAR12 CAR13	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Please correct the wording on page 21 sub-step 2b 'Analysed operation period is 21 years 11 months" to reflect proper period of the financial model. CAR13 While the sensitivity analysis scenarios selected account for all major factors which may influence the project efficiency, the calculations for scenario 3 and 4 contain mistakes as they reflect simultaneous deviation of the investments and revenues due to the formulas making reference to wrong cells. Please correct the formulas.		
30	If the approach 28 (c) is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	All explanations, descriptions and analyses are made in accordance with the selected tool.	OK	OK
Approved CDM methodology approach only				
31 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	Not applicable	Not applicable	Not applicable
31 (b)	Does the PDD provide a description of why and how the referenced approved CDM methodology is applicable to the	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	project?			
31 (c)	Are all explanations, descriptions and analyses with regard to additionality made in accordance with the selected methodology?	Not applicable	Not applicable	Not applicable
31 (d)	Are additionality proofs provided?	Not applicable	Not applicable	Not applicable
31 (e)	Is the additionality demonstrated appropriately as a result?	Not applicable	Not applicable	Not applicable
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	Yes, the project boundary defined in the PDD encompasses all anthropogenic emissions. For detailed information see section B.3. of the PDD	OK	OK
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	Yes, the project boundary is defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources	Section B.3 provides reasonable information on the project boundary, gases and their sources.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?			
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	All gases and sources included are explicitly stated. All exclusions made are appropriate as per approved CDM methodology ACM0002.	OK	OK
Approved CDM methodology approach only				
33	Is the project boundary defined in accordance with the approved CDM methodology?	Not applicable	Not applicable	Not applicable
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	PDD states the starting date of the project as the date when the rental agreement was signed.	OK	OK
34 (a)	Is the starting date after the beginning of 2000?	The starting date is 16/04/2010.	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	The expected operational life time of the project is 21 years and 11 months. CAR 14 Please add to section C.2 expected operational lifetime of the project in months.	CAR 14 CL 02	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		CL 02 Please clarify what kind of data was taken into account for estimation of expected operational lifetime of the project.		
34 (c)	Does the PDD state the length of the crediting period in years and months?	Length of the crediting period within the first commitment period of the Kyoto Protocol: 0 years and 2 months or 2 months. Length of the crediting period after the first commitment period of the Kyoto Protocol: 21 years and 9 month or 261 months.	OK	OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	The starting date of the crediting period is the date of the first emission reduction generated by the project.	OK	OK
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	See section 34(c) above.	OK	OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission	Yes, it is stated in PDD that the extension is subject to the host Party approval. Estimations presented separately for two periods.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?			
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? − JI specific approach − Approved CDM methodology approach	It is explicitly indicated that the monitoring plan is established in accordance with appendix B of the JI guidelines and further guidance on baseline setting and monitoring developed by the JISC applying the elements of the monitoring methodology contained in the ACM0002.	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: − All relevant factors and key characteristics that will be monitored? − The period in which they will be monitored? − All decisive factors for the control and reporting of project performance?	The monitoring plan describes: - data to be monitored: as the project emissions according to the ACM0002 equals 0, the following two parameters for determining the baseline emissions are to be monitored: - quantity of net electricity generation that is produced and fed into the grid; - CO_2 emission factor in the production of electricity by thermal power plants connected to the United Energy System of Ukraine; - the period in which they will be monitored: continuously or/and monthly; - all decisive factors for the control and reporting of project performance; - project activity reports provided by the plant;	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		- quality control (QC) and quality assurance (QA) procedures; - the operational and management structure that will be applied in implementing the monitoring plan;		
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	Specific emission factor for grid-connected thermal power plants electricity generation was used to provide transparent picture of the emission reductions.	OK	OK
36 (b)	If default values are used: − Are accuracy and reasonableness carefully balanced in their selection? − Do the default values originate from recognized sources? − Are the default values supported by statistical analyses providing reasonable confidence levels? − Are the default values presented in a transparent manner?	CEF for grid-connected thermal power plants is: - accuracy and reasonableness carefully balanced in its selection; - originates from recognized source; - supported by statistical analyses ; - presented in a transparent manner;	OK	OK
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	N/A	N/A	N/A

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (b) (ii)	For other values, − Does the monitoring plan clearly indicate the precise references from which these values are taken? − Is the conservativeness of the values provided justified?	CEF mentioned in the section 36(b) has been developed by NEIA of Ukraine.	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	N/A	N/A	N/A
36 (b) (iv)	Are International System Unit (SI units) used?	Yes, SI units were used.	OK	OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	Yes, quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the JI project activity is obtained through the monitoring.	OK	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	Yes, the use of variables, parameters are consistent through the baseline and monitoring plan.	OK	OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of “Guidance on criteria for baseline setting and monitoring”?	The monitoring plan draws on the list of standard variables contained in appendix B of “Guidance on criteria for baseline setting and monitoring”.	OK	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish:	Description of the monitoring plan in Section D.1 explicitly and clearly distinguishes:	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination? (iii) Data and parameters that are monitored throughout the crediting period?	(i) N/A (ii) N/A. iii) Refer to 36 (a).		
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The methods used (electricity meters within the automated system for commercial metering of electricity on-site) and data collection frequency (continuously or monthly) and recording (electronic/paper) are clearly defined in the monitoring plan.	OK	OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project	Yes, see section D of the PDD for further details. CL 03 During site visit was pointed out that within the	CL03 CAR15	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	project new electrical substation would be commissioned, power equipment at this substation is gas-insulated. Please explain how you are going to measure the volume of sulphur hexafluoride leakages if equipment is unsealed. CAR 15 Please explain why the amount of electric energy (such as energy for: relay protection, deceleration of rotor and other auxiliaries) that is consumed by wind turbines from the grid is excluded from calculation of emission reduction.		
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	Yes, the underlying rationale for the algorithms/formulae is presented.	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	All variables and equation formats are consistent and used in appropriate way.	OK	OK
36 (f) (iii)	Are all equations numbered?	All equations are numbered.	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	Yes, all variables with units indicated are defined.	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	N/A	N/A	N/A
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Uncertainty level in key parameters identified as low in table D.2 “Quality control and quality assurance procedures undertaken for data monitored”.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	There is consistency between the elaboration of the baseline scenario and calculating the baseline emission in the monitoring plan and in the spreadsheet.	OK	OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	All formulae are clearly explained.	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Yes, the monitoring is in line with current operational routines.	OK	OK
36 (f) (vii)	Are references provided as necessary?	References for documents required for ERUs calculation are provided.	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	All key assumptions presented in a transparent manner and are explained in the PDD.	OK	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	Information about significant uncertainty level of assumptions and procedures is not provided.	OK	OK
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or	The quantity of electricity exported and the quantity of electricity fed into the grid will be measured by electric meters. The data measured are used for the commercial transactions of the company, therefore they are well verified.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	enhancements of net removals provided?			
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?	There is no national or international monitoring standard used for monitoring of the JI project implementation.	OK	OK
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	Not applicable for the current JI project.	OK	OK
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	QC/QA procedures are outlined in PDD Section D.2.	OK	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring	Yes, the monitoring plan clearly identifies the responsibility and the authority regarding the monitoring activities	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	activities?			
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Monitoring techniques are in compliance with current operation routines at the enterprise.	OK	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	Tables D.1.1.1 and D.1.1.3 reflect compilation of all data needed to monitor project and baseline emissions.	OK	OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	The monitoring methodology included in ACM0002 requires that all data collected as part of monitoring should be archived electronically and kept at least for 2 years after the end of the last crediting period.	OK	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination,	The selected elements or combination, together with elements supplementary developed by the project participants are in line with 36 above.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	together with elements supplementary developed by the project participants in line with 36 above?			
Approved CDM methodology approach only				
38 (a)	Does the PDD provide the title, reference number and version of the approved CDM methodology used?	Not applicable	Not applicable	Not applicable
38 (a)	Is the approved CDM methodology the most recent valid version when the PDD is submitted for publication? If not, is the methodology still within the grace period (was the methodology revised to a newer version in the past two months)?	Not applicable	Not applicable	Not applicable
38 (b)	Does the PDD provide a description of why the approved CDM methodology is applicable to the project?	Not applicable	Not applicable	Not applicable
38 (c)	Are all explanations, descriptions and analyses pertaining to monitoring in the PDD made in accordance with the referenced approved CDM methodology?	Not applicable	Not applicable	Not applicable
38 (d)	Is the monitoring plan established appropriately as a result?	Not applicable	Not applicable	Not applicable
Applicable to both JI specific approach and approved CDM methodology approach				
39	If the monitoring plan indicates	The monitoring plan doesn't indicate overlapping	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	overlapping monitoring periods during the crediting period: (a) Is the underlying project composed of clearly identifiable components for which emission reductions or enhancements of removals can be calculated independently? (b) Can monitoring be performed independently for each of these components (i.e. the data/parameters monitored for one component are not dependent on/effect data/parameters to be monitored for another component)? (c) Does the monitoring plan ensure that monitoring is performed for all components and that in these cases all the requirements of the JI guidelines and further guidance by the JISC regarding monitoring are met? (d) Does the monitoring plan explicitly provide for overlapping monitoring periods of clearly defined project components, justify its need and state how the conditions mentioned in (a)-(c) are met?	monitoring periods during the crediting period.		
Leakage				

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
JI specific approach only				
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	According to the ACM0002 no leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing and transport). These emissions sources are neglected.	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	According to the information and justification stated in the PDD, leakage is absent. Please, refer to section B.3 of the PDD.	OK	OK
Approved CDM methodology approach only				
41	Are the leakage and the procedure for its estimation defined in accordance with the approved CDM methodology?	Not applicable	Not applicable	Not applicable
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	The PDD indicates that assessment of emission reductions in baseline scenario and in the project scenario was chosen	OK	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante	The PDD provides ex ante estimates for project and baseline scenario. Leakages considered as	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	absent.		
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?	Not applicable	Not applicable	Not applicable
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period?	The estimation of baseline emissions and emission reduction are made on a periodic basis from beginning to the end of the crediting period for each year. Estimations of emission reductions are carried out for CO_2 as greenhouse gas.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing	Calculations are regarded in t CO_2 equivalent. Formulae used for calculating the estimates under consideration in section D and section E are consistent throughout the PDD and calculation Excel spreadsheets. Data sources used for calculating the estimates are clearly identified. Among key factors influencing the baseline emissions or the activity level of the project as well as risks associated with the project Carbon Emission Factors for electricity are taken into account. The emission factor (estimated for 2011 by NEIA) of Ukrainian grid that used for calculation the estimates in the JI project is selected for usage with appropriate accuracy. Choice of emission factor is justified in the project design documents. Conservative assumptions are taken into account while estimating emission reduction. Tables with calculation results of CO_2 emission reductions are provided in the PDD. As a fact, estimated total value of CO_2 emission reductions for 1 period November – December 2012 is 22257 t CO_2 equivalent; moreover, estimated total value of CO_2 emission reductions for the period 2013-2034 is 10761543 t CO_2 equivalent.		

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	The PDD includes ex-ante calculations of emissions. All estimated values are presented in the section E of the PDD	OK	OK
Approved CDM methodology approach only				
47 (a)	Is the estimation of emission reductions or enhancements of net removals made in accordance with the approved	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	CDM methodology?			
47 (b)	Is the estimation of emission reductions or enhancements of net removals presented in the PDD: − On a periodic basis? − At least from the beginning until the end of the crediting period? − On a source-by-source/sink-by-sink basis? − For each GHG? − In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? − Are the formula used for calculating the estimates consistent throughout the PDD? − Are the estimates consistent throughout the PDD? − Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over	Not applicable	Not applicable	Not applicable

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the crediting period by the total months of the crediting period and multiplying by twelve?			
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	PDD indicates all the environment impacts and their analyses. Supporting documents of environment impact assessment were provided during site visit. Moreover environment impact is undertaken in accordance with the procedures as required by the host party. The following factors were analyzed: - impact on land use - noise and infrasound - Negative impacts during construction - Blade reflection - Impact on birds and bats Factors mentioned above met requirements of the host party (Ukraine).	OK	OK
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in	Factors mentioned above are considered insignificant.	OK	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	accordance with the procedures as required by the host Party?			
Environmental impacts				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	No negative comments were received during the public hearings. PDD will be made publicly available for the global stakeholder meeting commenting period and any comments received will be taken into account.	OK	OK
Determination regarding small-scale projects (additional elements for assessment)				
Applicable to bundled JI SSC projects only				
Applicable to all JI SSC projects				
Determination regarding land use, land-use change and forestry projects (additional/alternative elements for assessment)				
JI specific approach only				
Approved CDM methodology approach only				
Determination regarding programmes of activities (additional/alternative elements for assessment)				

Table 2 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01 Please provide passports on wind turbines implemented in the project.		Passports on wind turbines implemented in the project will be developed and approved after official turbines putting into operation. And passports will be provided during the first verification of the project. In current stage Type Certificate on turbine (Vestas V112 3.0MW) with technical specification is available. Necessary clarifications have been made in table 4 of the PDD. Please see attached Certificate and corrected PDD (version 2.0).	With regard to the specifics of commissioning works the issue is closed.

CAR 02 Taking into account that 65 wind turbines are going to be installed in “Botievska WPP” the highest possible capacity fo park is 65 *3.075 = 199,875 MW. Hence, expression “at least” in section A.4.2 of the PDD should be changed on “up to”.		Relevant changes have been made in section A.4.2 of the PDD. Please see corrected PDD (version 2.0).	Statement is corrected. The issue is closed.
CL 01 It is stated in the PDD that V112-3.0 MW turbine is designed for low and medium speed sites. Please clarify how it was identified that project site has mentioned above characteristics.		According to Type Certificate on turbine (Vestas V112 3.0MW): • Cut-in wind speed – 3 m/s • Cut-out wind speed – 25 m/s. According to Report-No.MV11052 “Wind measurement” maximum wind speed monitored at project site at period October 2009 – November 2011 was 11.12 m/s and turbine can work at such condition. Necessary clarifications have been made in PDD. Please see attached pages from Report-No.MV11052 “Wind measurement” and corrected PDD (version 2.0).	Report-No.MV11052 “Wind measurement” is checked. Scientific research in this document reflects wind characteristics that pertain to project facility. The issue is closed.

CAR 03 It is stated in Table 1. Schedule of project realization that turbines lifetime is 20 years. Please provide documents that clearly identify this figure.		Turbines lifetime is 20 years in Type Certificate on turbine (Vestas V112 3.0MW) Necessary clarifications have been made in table 4 of the PDD. Please see attached Certificate and corrected PDD (version 2.0).	Operational lifetime of wind turbines was added to table 4 of the PDD version 2.0. Also the certificate on turbines specifies design lifetime of Vestas wind turbines. The issue is closed.
CAR 04 According to excel calculation spreadsheet 2012 and 2032 are ordinary years, but indeed, they are leap years. Please make appropriate corrections.		Relevant changes have been made in ER calculation. Please see excel file (version 2.0).	Relevant calculations in the excel file were corrected. The issue is closed.
CAR 05 Please use value 199,875 MW of installed capacity. Taking into account that value rounded to nearest integer, the result of 20 years will give up to 1,5 % of not generated capacity.		Relevant changes have been made in ER calculation. Please see excel file (version 2.0).	New value of installed capacity was used. Hence, estimations obtained using this value is conservative and objective.

CAR 06 Please provide data that support the value of efficiency of wind turbines.		According to Report # EE12005 "Update of Wind Farm Energy Yield Assessment" 65 turbines Vestas V112 3.0MW give annual average production (AEP) with confidence level 90% - 506.9 GWh during whole year work (8760 hours). So Efficiency of wind turbine equal to: $$0.2895 = \frac{506.9 \times 1000}{65 \times 8760 \times 3.075}$$ Relevant changes have been made in ER calculation. Please see excel file (version 2.0) and file "Energy Yield Assessment".	Relevant scientific study "Update of Wind Farm Energy Yield Assesment" conducted by "Wind Guard" provides figures sufficient for efficiency calculation with confidence level 90 %. The issue is closed.
CAR 07 Please add title and version of the MR to excel file "20120815_PDD_ER_BotievskaWP_ver02_revIP_final".		Relevant changes have been made in ER calculation. Please see excel file (version 2.0).	The title and version of the MR were added. The issue is closed.

CAR 08 The Letters of Approvals from parties involved are absent.	19	The project has already been supported by the Government of the host Party (Ukraine), namely by the National Environmental Investment Agency of Ukraine, which has issued a Letter of Endorsement for the Project (Letter of Endorsement № 2150/23/7 dated 14/12/2010). Due to the Netherlands legislation, no LoE from the Netherlands is needed. Letters of Approval will be provided later. Please see attached Letter of Endorsement.	In order to obtain the Letter of Approval the final Determination report must be submitted to the State Environmental Investment Agency of Ukraine. The issue is closed.
CAR 09 Please provide reference on LoE # 2150/23/7 issued by the National Environmental Investment Agency of Ukraine from 14/12/2010.	19	The project has already been supported by the Government of the host Party (Ukraine), namely by the National Environmental Investment Agency of Ukraine, which has issued a Letter of Endorsement for the Project (Letter of Endorsement №2150/23/7 dated 14/12/2010). Please see attached Letter of Endorsement.	LoE # 2150/23/7 issued by the National Environmental Investment Agency of Ukraine from 14/12/2010 has been provided. The issue is closed.

CAR 10 Reference # 18 does not work. Please correct it.	26 (c)	Relevant changes have been made in the PDD. Please see corrected PDD (version 2.0).	The reference is corrected. The issue is closed.
CAR11 The developer's financial model accounts for the period of 2011-2021. Unfortunately it includes only seven full years of WPP operation which is not sufficient to make conclusion regarding project financial efficiency taking into account expected lifetime period of 20 years. I kindly ask you to extend the time horizon of the financial model to at least year 2014 included.	31(e)	Time horizon of the financial model extended to the year 2021 included.	The issue is closed
CAR12 Please correct the wording on page 21 sub-step 2b 'Analyzed operation period is 21 years 11 months" to reflect proper period of the financial model.	31(e)	Relevant changes have been made. Analyzed operation period is 10 years and 2 months.	The issue is closed

CAR13 While the sensitivity analysis scenarios selected account for all major factors which may influence the project efficiency, the calculations for scenario 3 and 4 contain mistakes as they reflect simultaneous deviation of the investments and revenues due to the formulas making reference to wrong cells. Please correct the formulas.	31(e)	Relevant changes have been made.	The issue is closed
CAR 14 Please add to section C.2 expected operational lifetime of the project in months.	34(b)	Relevant changes have been made in section C.2 of the PDD. Please see corrected PDD (version 2.0).	Corrected PDD version 2.0 is checked. The issue is closed
CL 02 Please clarify what kind of data was taken into account for estimation of expected operational lifetime of the project.	34(b)	Turbines lifetime is 20 years in Type Certificate on turbine (Vestas V112 3.0MW) Necessary clarifications have been made in table 4 of the PDD. Please see attached Certificate and corrected PDD (version 2.0).	Certificate on wind turbines type Vestas clearly indicate operational life time of equipment. The issue is closed

CL 03 During site visit was pointed out that within the project new electrical substation would be commissioned, Power equipment at this substation is gas-insulated. Please explain how you are going to measure the volume of sulphur hexafluoride leakages if equipment is unsealed.	38(c)	Insulating gas (SF_6), used in circuit breakers and other electrical substation equipment is toxic and is listed as gas circulation and utilization of which is under the control of state environment organizations. Equipment containing insulating gas is hermetically sealed and prevents leakage of gas into the atmosphere. In the case of its failure or decommissioning SF_6 will be collected and reused by filling new similar equipment. In connection with all the above SF_6 emissions were excluded from the calculations. Please see registered JI project "EC Chernivtsioblenergo PJSC Power Distribution System Modernization" http://ji.unfccc.int/UserManagement/FileStorage/60GJN92P14MVQREAFOBTW87CYZKIS3	At the moment of determination process provided information is sufficient. Further investigation of sulphur hexafluoride monitoring system will be conducted during initial verification. The issue is closed

CAR 15 Please explain why the amount of electric energy (such as energy for: relay protection, deceleration of rotor and other auxiliaries) that is consumed by wind turbines from the grid is excluded from calculation of emission reductions.	38(c)	In State statistical reporting form # 1-NKRE electricity generation company every month should provide following data according to meters reading: • line 17 “Quantity of gross electricity generation”. That is produced. • line 18 “Auxiliary electricity consumption” That is consumed. • line 19 “Quantity of net electricity generation”. That is produced and fed into the grid. For monitoring of JI project only Quantity of net electricity generation that is produced and fed into the grid will be taken into account. Please see form # 1-NKRE http://zakon.nau.ua/doc/?uid=1044.1177.11&nobreak=1 and Equations 1, 3 in PDD (version 2.0).	Using Order # 103 dated 30/01/2002 it becomes clear that for this type of project there is no need to take into account auxiliary consumption of energy. The issue is closed.