TÜV Rheinland®

TÜV Rheinland Group

DETERMINATION REPORT

Determination of the Joint Implementation small-scale project

"Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)"

Report No. 01 998 9105067097 – DR
Revision No. 02.3

Customer: Carbon Futures LLP

DETERMINATION REPORT

Date of first issue: 15/12/2011	Project No: 01 998 9105067097
Executor: TÜV Rheinland Group	Organizational unit: TÜV Rheinland Ukraine Ltd.
Customer: Carbon Futures LLP	Client ref.: Artem Ruban

Summary:

TÜV Rheinland Group/TÜV Rheinland Ukraine has performed a determination of the SSC project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)" 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 serves as project design objective and complete assessment, and is a requirement of all projects. It consists of the following three phases: i) a desk review of the project design documents including analysis of the baseline justification and monitoring plan; ii) follow-up interviews with project stakeholders including on site visit; iii) the 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 TÜV Rheinland Group/TÜV Rheinland Ukraine internal procedures.

To address TÜV Rheinland Group/TÜV Rheinland Ukraine corrective action and clarification requests Carbon Futures LLP revised the PDD and resubmitted it on 20/12/2011 as version 02 and 15/06/2012 as version 03.3.

The determination findings presented in this report relate to the SSC project as described in the PDD version 03.3.

In summary, it is TÜV Rheinland's Group/TÜV Rheinland's Ukraine opinion that the project complies with the criteria for baseline setting and monitoring methodology according to developed specific approach, and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: 01 998 9105067097 – DR	Subject Group: SSC JI	
Project title: "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)"		
Work carried out by: Dr. Valery Yakubovsky – Team leader Mr. Volodymyr Gordiichuk – Technical Expert Ms. Iryna Nikolaieva – Trainee		
Work verified by: Dr. Lixin Li – Technical Reviewer		
Determination Report approved by: Dr. Manfred Brinkmann		
Date of this revision: 21/06/2012	Revision No.: 02.3	Number of pages: 73

Abbreviations

CO_2	Carbon Dioxide
CH_4	Methane
N_2O	Nitrogen Oxide
AIE	Accredited Independent Entity
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CFLs	Compact florescent lamps
CL	Clarification Request
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Greenhouse Gas
I	Interview
ICLs	Incandescent lamps
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LED	Light-emitting diode
LoA	Letter of Approval
LoE	Letter of Endorsement
MoV	Means of Verification
MP	Monitoring Plan
OSV	On Site Visit
PDD	Project Design Document
PE	Project Emissions
SD	Supporting documentation
SSC	Small-scale
STHS	Stakeholder Survey
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change

Table of Contents **Page**

1 DETERMINATION OPINION

The audit team of TÜV Rheinland Group/TÜV Rheinland Ukraine has performed a determination of the SSC project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)" 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 document (PDD) including analysis of the baseline justification and monitoring plan;
ii) follow-up interviews with project stakeholders including on site visit;
iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

Project participants used the JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04 for setting the baseline. The PDD provides a description of the chosen baseline in a clear and transparent manner, as well as a justification in accordance with Paragraph 23 through 29 of the "Guidance on Criteria for Baseline Setting and Monitoring", version 03.

Project participants used the JI specific approach for demonstration of the additionality. According to the paragraph 44 (a) of the Annex I to the "Guidance on criteria for baseline setting and monitoring", version 03 the PDD provides analysis of investment, technological and other barriers to determine that the project activity itself is not the baseline scenario.

By synthetic description of the project, the project is likely to result in reductions of GHGs emissions. An analysis of the investment and technological barriers demonstrates that the

proposed project activity is not a likely 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 review of the project design documentation, version 03.3 and the subsequent interviews have provided TÜV Rheinland Group/TÜV Rheinland Ukraine 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 and the engagement conditions detailed in this report.

2 INTRODUCTION

Carbon Futures LLP has commissioned TÜV Rheinland Group/TÜV Rheinland Ukraine to determinate its JI SSC project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)" (hereafter called "the SSC project") at Kramatorsk town, Donetsk Region.

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

2.1 Objective

The determination serves as project design objective and complete assessment 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 JISC, as well as the host country criteria.

2.2 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.

2.3 JI SSC Project Description

The proposed project aims to replace traditional incandescent lamps (ICLs) with up-to-date compact florescent lamps (CFLs) in budget and social facilities of Kramatorsk Town, i.e. schools, kindergartens, hospitals, health centers, etc. Please see the detailed list in Annex 4 of the PDD, version 03.3.

Despite CFLs proved their energy efficiency, ICLs had been used for lighting in budget and social facilities of Kramatorsk town before the project started. The reason for ICLs usage was insufficient funding, the established practice, and other issues related to unauthorized removal of CFLs, etc.

Further operation of 100 to 150 W ICLs (light flux is about 1,350 Lm and 2,180 Lm respectively) is considered as the baseline scenario. Electric power required for ICL functioning is supplied from the Ukrainian power grid.

The project stipulates replacement of 100 W and 150 W ICLs with 20 W and 32 W CFLs which are energy saving lamps compared to ICLs, since they consume four-five times less power with similar lighting. CFLs are to be installed instead of the 100 W and 150 W ICLs and will provide the minimum light flux of 1,350 Lm and 2,180 Lm respectively. Service life of CFLs proposed for replacement under the project reaches 8,000 hours, i.e. 8 times higher than the service life of typical ICLs. CFLs are fully compatible with standard ICL holders, as well as provide white and soft lighting. The project covers replacement of 100 to 150 W ICLs.

If within the project lifecycle light-emitting diode (LED) lamps become more affordable from the economic standpoint, they will be used instead of ICLs, since they consume about ten times less power than ICLs, while providing the same lighting level.

The total variable number of ICLs made up:
- 22,061 pieces, 100 W;
- 1,600 pieces, 150 W.

GHGs emission reduction in project scenario is reached by reduction of electricity consuming from Ukrainian power grid. In case of reduction of electricity consuming from Ukrainian power grid the need of combusting of fossil fuels on Ukrainian power stations decreases. Therefore level of direct GHGs emissions on the power stations is decreased.

Since 07/02/2011 all CFLs have been installed, and their operation is being monitored according to the monitoring plan.

3 METHODOLOGY

The determination consisted of the following three phases:
I) a desk review of the project design documents including analysis of the baseline justification and monitoring plan;
II) follow-up interviews with project stakeholders including on site visit;
III) the resolution of outstanding issues and the issuance of the final determination report and opinion.
The following sections outline each step in more detail.

3.1 Desk Review of the Project Design Documentation

The PDD submitted by Carbon Futures LLP and additional background documents related to the project design to be checked by an Accredited Independent Entity were reviewed.
The list of submitted documentation is provided below.
To address TÜV Rheinland Group/TÜV Rheinland Ukraine corrective action and clarification requests Carbon Futures LLP revised the PDD and resubmitted it on 20/12/2011 as version 02 and 15/06/2012 as version 03.3.

The determination findings presented in this report relate to the SSC project as described in the PDD version 03.3.

The following tables outlines the documentation reviewed during the determination:

Category 1 Documents:
Documents provided by Carbon Futures LLP that relate directly to the components of the JI SSC project.

/1/ PDD "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)", version 01 dated 15/03/2011;

/2/ PDD "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social

entities in the Kramatorsk town (under Track 2)", version 03.2 dated 20/03/2012;

/3/ PDD "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)", version 03.3 dated 15/06/2012;

/4/ Estimates of the project GHGs emissions in Excel format;

/5/ "Guidelines for users of the Joint implementation project design document form for SSC projects and the form for submission of bundled joint implementation SSC projects", version 04;

/6/ "Guidance on Criteria for Baseline Setting and Monitoring", version 03, JISC;

/7/ AMS-II.J methodology "Demand-side activities for efficient lighting technologies", version 04;

/8/ Attachment A to Appendix B of 4/CMP.1 Annex II

/9/ "Combined tool to identify the baseline scenario and demonstrate additionality" , version 04.0.0

/10/ "Provisions for Joint implementation SSC projects", version 03, JISC;

/11/ Kyoto Protocol to the United Nations Framework Convention On Climate Change;

/12/ Marrakech Accords, JI Modalities;

/13/ JI guidelines. Annex II to decision 9/CMP.1;

/14/ "Joint implementation determination and verification manual", version 01, JISC;

/15/ "Glossary of JI terms", version 03, JISC.

/16/ Letter of Endorsement for the project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town" #1908/23/6 on 16/11/2010;

/17/ Letter of Approval for JI project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget

financed and social entities in the Kramatorsk town" #3236/23/6 dated 04/11/2011.

/18/ Declaration of Approval issued by "NL Agency" Ministry of Economic Affairs, Agriculture and Innovations, reference #2011JI55 on 02/02/2012.

/19/ Modalities of communication dated 17/01/2012.

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

/1/ Transfer and Acceptance Act of energy-efficient lamps, Town Council, Kramatorsk town;

/2/ Operation hours' log in City Hospital #3, Kramatorsk town;

/3/ Order #52 dated 03/03/2011 "On the appointment of persons responsible for the replacement of incandescent lamps and installation of energy saving lamps, for logging statements" City Hospital #3, Kramatorsk town;

/4/ Photo City Hospital #3, Kramatorsk town;

/5/ The Town Mayor Order dated 12/01/2011 #3-r "On a working group to monitor the organization works to replace incandescent lamps for energy efficiency in municipal institutions" Kramatorsk town;

/6/ The Town Mayor Order #17-r dated 02/03/2011 "On amendments to the order of the mayor #3-r dated 12/01/2011" (Town Council), Kramatorsk town;

/7/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps dated 04/02/2011, Kramatorsk town;

/8/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps (130 lamps) dated 02/02/2011, Kramatorsk town;

/9/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps (200 lamps) dated 02/02/2011, Kramatorsk town;

/10/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps

(973 lamps) dated 04/02/2011, Kramatorsk town;

/11/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps (5404 lamps) dated 04/02/2011, Kramatorsk town;

/12/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps (248 lamps) dated 02/02/2011, Kramatorsk town;

/13/ Act of provided services on replacement of the incandescent lamps by the compact fluorescent lamps (100 lamps) dated 04/02/2011, Kramatorsk town;

/14/ Transfer and Acceptance Act of energy-efficient lamps dated 05/01/2011, Kramatorsk town;

/15/ Transfer and Acceptance Act of energy-efficient lamps dated 18/01/2011, Kramatorsk town;

/16/ Act of provided services on utilization of incandescent lamps dated 16/01/2011, Kramatorsk town;

/17/ Transfer and Acceptance Act of energy-efficient lamps dated 15/04/2011, Kramatorsk town;

/18/ Transfer and Acceptance Act of energy-efficient lamps dated 28/04/2011, Kramatorsk town;

/19/ Transfer and Acceptance Act of energy-efficient lamps dated 21/04/2011, Kramatorsk town;

/20/ The act of replacing the energy saving lamps, Kramatorsk town;

/21/ Operation hours' log in nursery school #3, Kramatorsk town;

/22/ Order #22 dated 15/02/2011 "On the appointment of the person responsible for record of operation time of energy saving lamps in the nursery school #3" Kramatorsk town;

/23/ The Log Book for recording of operating hours of energy-efficient lamps in the nursery school #3, Kramatorsk town;

/24/ Photo nursery school #3, Kramatorsk town;

/25/ The Log Book for recording of operating hours of energy-efficient lamps in the school #24, Kramatorsk town;

/26/ Order #124 dated 30/09/2010 "On the distribution of functional duties and officer responsibilities between the

school administration and support staff", Kramatorsk town;

/27/ Transfer and Acceptance Act of energy-efficient lamps dated 20/01/2011, Kramatorsk town;

/28/ Photo school #24, Kramatorsk town;

/29/ Example of Operation hours' log for Philips energy saving lamps;

/30/ Protocol of internal check of the facility for compliance with requirements of the project "Implementation of Energy-Efficient Lighting System in Donetsk Region with the Use of Kyoto Protocol Mechanism" dated 04/05/2011, Nursery school #53, Kramatorsk town;

/31/ Protocol of internal check of the facility for compliance with requirements of the project "Implementation of Energy-Efficient Lighting System in Donetsk Region with the Use of Kyoto Protocol Mechanism" dated 04/05/2011, Children's Medical Center, Kramatorsk town;

/32/ Protocol of internal check of the facility for compliance with requirements of the project "Implementation of Energy-Efficient Lighting System in Donetsk Region with the Use of Kyoto Protocol Mechanism" dated 04/05/2011, school #35, Kramatorsk town;

/33/ Monitoring survey for the period 07/02/2011 – 13/07/2011 in Excel format;

/34/ Monitoring survey for the period 14/02/2011 – 20/07/2011 in Excel format;

/35/ Monitoring survey for the period 21/02/2011 – 27/07/2011 in Excel format;

/36/ Monitoring survey for the period 28/02/2011 in Excel format;

/37/ Estimates of the average value of parameter "Daily operating hours of the group "i" devices" for the period 07/02/2011 – 28/02/2011 in Excel format.

/38/ Ordinance of the Cabinet of Ministers of Ukraine # 1337-r "On Implementation of Measures to Reduce Electricity Consumption by Budget Institutions" translated in English.

/39/ The Letter # 01-01-29/2204 dated 14 May 2012 obtained from Kramatorsk town council.

/40/ The Letter of State Agency on Energy Efficiency and Energy Saving of Ukraine # 774-01/13/4-12 dated 18 May 2012.

/41/ Cover letter of Kramatorsk town administration dated 26/08/2011 No. 01-01-29-884 with reference to local budgets for the Years 2008-2010

/42/ Kramatorsk town local budgets for 2008, 2009 and 2010 years.

3.2 Interviews with project stakeholders

TÜV Rheinland Group/TÜV Rheinland Ukraine performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of Kramatorsk Town Council, Innovation Center "Ecosystem" and Agency for Rational Use and Ecology (ARENA-ECO) were interviewed and their names are indicated in Table 1. The main topics of the interviews are summarized in Table 2.

Table 1 Persons interviewed

	Name	Organization	Title
/1/	Rumyantsev Olexandr M.	Kramatorsk Town Council	First Deputy town mayor
/2/	Rozmaritsyn Dmitry A.	Kramatorsk Town Council	Mayor councillor
/3/	Stupak Vsevolod O.	Kramatorsk Town Council	Specialist of priority development Kramatorsk Town Council
/4/	Goncharova Victoria V.	Kramatorsk Town Council	Head of priority development Kramatorsk Town Council
/5/	Pokidko Oleg A.	ARENA-ECO	Project developer
/6/	Zasevskyy Vladislav P.	Innovation Center "Ecosystem"	Technical director
/7/	Danilkin Dmitry V.	Innovation Center "Ecosystem"	Project manager

	Name	Organization	Title
/8/	Strybul Lyubov I.	School #4	Logistics manager
/9/	Vorontsova Lyudmila I.	Nursery school #49	Logistics manager
/10/	Sudinkov Olexandr V.	Hospital #3	Chief Engineer

Table 2 Interview topics

	Date	Interviewed organization	Interview topics
/1/	09/12/2011	Kramatorsk Town Council	➢ Project design ➢ Project related legal issues ➢ Technical equipment ➢ Sustainable development issues ➢ Stakeholder comments ➢ Approval by the host country ➢ Environmental impacts
/2/	09/12/2011	ARENA-ECO	➢ Project design ➢ Additionality ➢ Crediting period ➢ Monitoring plan ➢ Environmental impacts
/3/	09/12/2011	Innovation Center "Ecosystem"	➢ Project design ➢ Project related legal issues ➢ Technical equipment ➢ Monitoring plan ➢ Training history ➢ Environmental impacts ➢ Stakeholder comments

	Date	Interviewed organization	Interview topics
/4/	09/12/2011	School #4	➢ Project design ➢ Monitoring plan ➢ Environmental impacts
/5/	09/12/2011	Nursery school #49	➢ Project design ➢ Monitoring plan ➢ Environmental impacts
/6/	09/12/2011	Hospital #3	➢ Project design ➢ Monitoring plan ➢ Environmental impacts

3.3 Resolution of Clarification and Corrective Action Requests

The overall determination, from Contract Review to Determination Report & Opinion, was conducted using TÜV Rheinland Group/TÜV Rheinland Ukraine internal procedures.
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 TÜV Rheinland Group/TÜV Rheinland Ukraine conclusion formation on the project design.

In order to ensure transparency, a determination protocol (Annex A of the Determination report) was customized for the project, according to the Annex "Joint Implementation Determination and Verification Manual", version 01. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from determining the identified criteria. The determination protocol serves the following:

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

The determination protocol consists of three tables. The different columns in these tables are described in Figure 1.

To guarantee the transparency of the determination process, the concerns raised are documented in more detail in the determination protocol (Annex A of the Determination report).
The PDD, version 03.2 dated 20/03/2012, has been submitted to the audit team for final determination, which is revised based on the first version of the determination report and the issued corrective action requests and clarification requests. The major changes include: starting dates of project activity & crediting period amended; baseline scenario, project scenario and project history included; alternative scenarios and key factors considered; a detailed description of monitoring plan indicated; the details on the process of informing stakeholders provided.

The revised PDD, version 03.3 dated 15/06/2012, is based on findings from JISC on the consideration of the requests for review. The major changes include: further clarifications on legally non-binding status of Ordinance of the Cabinet of Ministers of Ukraine # 1337-r "On Implementation of Measures to Reduce Electricity Consumption by Budget Institutions" for local authorities; information and supporting evidence of the investment barrier provided; the fraction of CFLs in public buildings within budget funding is included as an annually monitored parameter.

Determination Protocol Table 1: Mandatory Requirements			
Requirement	**Reference**	**Conclusion**	**Cross reference**
The requirements the project must meet.	Gives reference to the legislation or agreement where the requirement is found.	This is either acceptable based on evidence provided (**OK**), a **Corrective Action Request (CAR)**, a **Clarification Request (CL)** or a **Forward Action Request (FAR)** of risk or non-compliance with stated requirements. The CAR's, CL's and FAR's are numbered and presented to the client in the Determination Report.	Used to refer to the relevant protocol questions in Tables 2, to show how the specific requirement is determined. This is to ensure a transparent determination process.

Determination Protocol Table 2: Requirements checklist				
Checklist Question	**Reference**	**Means of verification (MoV)**	**Comment**	**Draft and/or Final Conclusion**
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in several sections. Each section is then further sub-divided. The lowest level constitutes a checklist question.	Gives reference to documents where the answer to the checklist question or item is found.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question. (See below). **Clarification Request (CL)** is used when the determination team has identified a need for further clarification. **Forward action request (FAR)** informs the project participants of an issue that needs to be reviewed during the verification.

Determination Protocol Table *3*: Resolution of Corrective Action and Clarification Requests			
Report clarifications and corrective action requests	**Ref. to checklist question in tables 2/3**	**Summary of project owner response**	**Determination conclusion**
If the conclusions from the Determination are either a Corrective Action Request, a Clarification Request or a Forward action request, these should be listed in this section.	Reference to the checklist question number in Tables 2 where the Corrective Action Request, Clarification Request or a Forward action request is explained.	The responses given by the Client or other project participants during the communications with the determination team should be summarized in this section.	This section should summarize the determination team's responses and final conclusions. The conclusions should also be included in Tables 2, under "Final Conclusion".

Figure 1 Determination protocol tables

3.4 Internal Technical Review

The determination report including the determination findings underwent a technical review before requesting registration of the project activity. The technical review was performed by an internal technical reviewer qualified in accordance with TÜV Rheinland Group/TÜV Rheinland Ukraine qualification scheme for JI project determination and verification.

3.5 Determination team

The determination team consists of the following personnel:

Dr. Valery Yakubovsky - Team Leader
Mr. Volodymyr Gordiichuk - Technical Expert
Ms. Iryna Nikolaieva - Trainee
Dr. Lixin Li – Technical Reviewer

4 DETERMINATION FINDINGS

In the following subsections the determination findings are stated as follows:

1) the findings from the desk review of the original project design documents and the findings from interviews during the follow up on site visit are summarized. A more detailed record of these findings can be found in the Determination Protocol (Annex A of the Determination report);
2) in case TÜV Rheinland Group/TÜV Rheinland Ukraine had identified issues that needed clarification or that represented a risk to the fulfillment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification and Corrective Action Requests are stated, where applicable, in the following subsections and are further documented in the Determination Protocol (Annex A of the Determination report). The determination of the Project resulted in 27 Corrective Action Requests and 19 Clarification Requests.
3) the conclusions for determination subject are presented in each subsection.

4.1 Project Design

The SSC project is expected to be in line with host-country specific JI requirements. The project activity is aimed at reducing GHGs emissions by reduction of electricity consuming from Ukrainian power grid. In case of reduction of electricity consuming from Ukrainian power grid the need of combusting of fossil fuels on Ukrainian power stations decreases. Therefore level of direct GHGs emissions on the power stations is decreased.

TÜV Rheinland Group/TÜV Rheinland Ukraine recognizes that this SSC project helps the country in which it is implemented to achieve sustainable development. The project meets the JI specific requirements of the host country.

The Project scenario is considered additional in comparison to the baseline scenario, and therefore eligible to receive Emissions Reductions Units (ERUs) under the JI SSC project. Analysis of additionality is based on investment, technological

and other barriers, on prevailing practice and presented by the PDD.

The project design is sound and the geographical (Kramatorsk town, Donetsk region) boundaries of the SSC project are clearly defined. The project boundary is the physical, geographical location of each measure (each CFL) installed (the full list of facilities where CFLs were installed is provided in Annex 4 to the PDD, version 03.3).

Identified problem areas for project design, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 1, CAR 2, CAR 4 – CAR 6, CAR 18).

4.2 SSC project type(s) and category(ies)

According to paragraphs 7 and 8 of "Provisions for JI SSC Projects", version 03, type of SSC project activity is II (energy efficiency improvement projects which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 60 GWh per year). The project category is II.J (Demand-side activities for efficient lighting technologies).

The proposed project has following features:
1) the proposed project is a demand-side energy efficiency activity, which eventually leads to the reduction of electricity consumption;
2) the activity includes energy-efficient measures;
3) the project activity is to be carried out in public buildings;
4) the annual energy savings of the project activity is estimated to be about 6.8 GWh/year.

Despite the fact that at present in the Donetsk Region 5 similar projects are implemented with the same technology/measure (in Gorlivka, Artemivsk, Slovyansk, Torez and Yenakiive towns) the proposed small-scale project is not a debundled component of a large project since there is not registered small-scale JI project or application for registration of other small-scale JI project, where:
- existing JI SSC project has completed the determination process involving the same participants;

- project boundary of other project is within 1 km of the project boundary of the proposed small-scale activity at the closest point.

Identified problem areas for SSC project type and category, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 03, CL 01).

4.3 Baseline and Additionality

The SSC project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)" uses the JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04.

Description and justification of the baseline chosen is provided in accordance with "Guidance on criteria for baseline setting and monitoring", version 03 and in accordance with "Guidelines for users of the joint implementation project PDD form for SSC projects and the form for submission of bundled joint implementation SSC projects", version 04.

The alternatives for determination of the baseline scenario in the context of the project activity are considered.

The possible alternative baseline scenarios are the following:

(a) usage of ICLs in the project period;

(b) Town Administration is to replace ICLs with CFLs;

(c) Town Administration is to replace ICLs with LED lamps.

Key factors include:

1) Financing the alternative scenario: there are no possibilities to allocate financial resources for lighting improvement from local budget and there are no plans for such allocation for coming years. It was cross-checked with Kramatorsk town local budgets review for the years 2008, 2009 and 2010 which have

been annexed to Project Participant - Kramatorsk town Administration request for LoA. It was confirmed that no budget resource have been foreseen for lighting improvement in social sphere of Kramatorsk town. Same is stated in a Letter received from Kramatorsk town administration on request of Carbon Futures LLP/IC "Ecosystem". As stated in this letter the main reason for that is the fact that local budget distribution is prioritized to more vital areas requiring financing.

2) Fulfillment of regulatory instruments: Ordinance of the Cabinet of Ministers of Ukraine #1337-r dated 16/10/2008 "On Implementation of Measures to Reduce Electricity Consumption by Budget Institutions" stipulates gradual change of ordinary CFLs with up-to-date energy efficient sources of light, however mentioned above Ordinance for social entities covered by the project and financed through local budgets has legally non-binding status. According to "Combined tool to identify the baseline scenario and demonstrate additionality", version 04.0.0 consistency with applicable laws and regulations should not be considered when these regulations do not have legally-binding status.

3) Fulfillment of sanitary regulations and rules with CFLs kept.

Section B.1. of the PDD, version 03.3 represents the analysis of key factors' impact on alternative scenarios.

The baseline options considered do not include those options that:

- do not comply with legal and regulatory requirements; or
- depend on key resources such as fuels, materials or technology that are not available at the project site.

The most economically attractive alternative among the alternatives mentioned above, notably usage of ICLs in the project period, has been selected as the baseline scenario, since such alternative is not expected to face any prohibitive barriers that could have prevented it from being taken up as the project activity.

Identified problem areas for baseline and additionality proofs, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 7 – CAR 17, CL 02).

4.4 Monitoring Plan

The SSC project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2)" uses the JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04.

Monitoring plan of the GHGs emissions in the project and baseline scenarios and the GHGs emissions reduction is elaborated on the basis of requirements of the "Guidance on criteria for baseline setting and monitoring", version 03.

The chosen monitoring approach includes monitoring and estimation of baseline emissions, project scenario emissions and leakages.

Since there are no direct CO_2 emissions in the project, the emission estimate (and further emission monitoring) is based on electricity consumption from the power grid and specific indirect emissions of carbon dioxide.

Identified problem areas for monitoring plan, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 19 – CAR 23, CL 03 – CL 11).

4.5 Calculation of GHG Emissions

As per JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04, the baseline emission sources considered are CO_2 emissions from electricity consumption of existing facilities. At the same time the project reduces emissions of CH_4 and N_2O from fuel consumption. However, these emissions are much smaller in comparison with than emissions of CO_2 and are excluded from the project to ensure that emission reductions are estimated in a conservative manner.

According to JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04, the baseline emissions are calculated under formula:

$$BE_y = EC_{BL,y} \cdot (1 - F_{CFL}) \cdot EF_{CO2,ELEC,y} \cdot 10^{-3}$$

BE_y – emissions in year "y", t CO_2;
$EC_{BL,y}$ - electricity baseline consumption in year "y", kWh;
$F_{CFL,y}$ - fraction of CFLs in local public buildings within budget funding;
$EF_{CO2,ELEC,y}$ - electricity consumption carbon emission factor for Ukraine, kgCO_2/kWh.

The detailed algorithms are described later under section D.1. of the PDD, version 03.2.

As per JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04, the included project emissions sources are CO_2 emissions from electricity consumption of facilities after applying energy-efficiency improvement measures.

Project emissions are calculated using the following formula according to JI specific approach with elements of an approved baseline CDM methodology AMS-II.J "Demand-side activities for efficient lighting technologies", version 04:

$$PE_y = EC_{PJ,y} \cdot EF_{CO2,ELEC,y} \cdot 10^{-3}$$

PE_y – emissions in year "y", t CO_2;
$EC_{PJ,y}$ – electricity project consumption in year "y", kWh;
$EF_{CO2,ELEC,y}$ – electricity consumption carbon emission factor for Ukraine, kgCO_2/kWh.

The detailed algorithms are described later under section D.1. of the PDD, version 03.2.

As per JI specific approach project does not lead to any leakage.

Total estimated emission reductions over the crediting period are 15,859 tonnes of CO_2 equivalent. Total estimated emission reductions for late crediting period (2013 – 2020 years) are 66,920 tonnes of CO_2 equivalent and represents a reasonable estimation using the assumptions given by the SSC project.

Identified problem areas for calculation of GHGs emissions, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 24, CAR 25, CL 12 - CL 13).

4.6 Environmental Impacts

On average every CFL contains about 5 mg of mercury that may have undesirable ecological effect if it is emitted into the environment. CFLs should be used and kept according to state sanitary rules and regulations "Hygienic requirements to industrial waste management and determination of population health hazard class" (DSanPiN 2.2.7.029-99)". At the same time, the Project participants will manage facilities where lamps are installed and adhere to current standards to prevent environmental pollution with mercury.

The project participants will support the efficient collection and disposal of failed CFLs in accordance with the current environmental standards, notably, keep CFLs in an iron air-proof box which can be accessed only by a person responsible for keeping. Failed CFLs will be delivered from facilities to departments of education or healthcare of town council and then to the owner, Carbon Futures LLP, for proper utilization. Innovation Center "Ecosystem" will coordinate whole process of utilization. Transboundary impacts are absent because the project aims to reduce electricity consumption and direct emissions of GHGs are absent.

The project participants are not required to perform the Environmental Impact Assessment (EIA) according to the Ukrainian law, in particular, Article 27 of the Law of Ukraine "On environmental protection", Article 14 of the Law of Ukraine "On environmental expertise", "DBN A.2.2.-1-2003 Content and structure of the Environmental Impact Assessment (EIA)

materials upon designing and construction of enterprises, buildings and facilities", "DBN A.2.2.-3-2004 Content, development procedure, agreement and approval of construction project documentation". This project complies with requirements of Articles 1, 3, 40, and 51 of the Law of Ukraine "On environmental protection", and as a result, requirements of the environmental legislation of Ukraine.

Identified problem areas for environmental impacts, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 26, CL 17, CL 18).

4.7 Comments by Local Stakeholders

The project information was published on the web-site of the Innovation Center "Ecosystem". Currently, on the stage of determination comments of stakeholders are not received.

Identified problem areas for comments by local stakeholders, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A Table 3 (refer to CAR 27).

5 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to the modalities for the Determination of JI projects, the AIE shall make publicly available the project design document and receive, within 30 days, comments from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available.

TÜV Rheinland Group/TÜV Rheinland Ukraine published the project design document on the website TÜV Rheinland Ukraine (http://www.tuv.com.ua) on 12/05/2011 and invited comments within 11/06/2011 by Parties, stakeholders and non-governmental organizations.

TÜV Rheinland Group/TÜV Rheinland Ukraine published the project design document on the UNFCCC JI website (http://ji.unfccc.int) on 01/12/2011 and invited comments within by Parties, stakeholders and non-governmental organizations.
There were no comments from Parties, stakeholders and UNFCCC accredited observers received.

- o0o -

ANNEX A: JI SSC PROJECT DETERMINATION PROTOCOL

Table 1 Mandatory Requirements for Joint Implementation (JI) Project

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
1. The project shall have the approval of the Parties involved.	Kyoto Protocol Article 6.1 (a)	**OK**	Table 2, section A.5. A written project approval by the Ukraine (host Party) is available: Letter of Approval for JI project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town" #3236/23/6 dated 04/11/2011. Written project approval by a Party involved in JI small-scale project, other than the host Party was obtained – Declaration of Approval reference #2011JI55 on 02/02/2012, issued by "NL Agency" Ministry of Economic Affairs, Agriculture and Innovations.
2. Emission reductions, or an enhancement of removal by sinks, shall be additional to any that would otherwise occur.	Kyoto Protocol Article 6.1 (b)	**OK**	Table 2, section B.
3. The sponsor Party shall not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7.	Kyoto Protocol Article 6.1 (c)	**OK**	Article 5 requires: "Each Party included in Annex I shall have in place, no later than one year prior

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
			to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases". According to the Article 7: "Annex I Parties to submit annual greenhouse gas inventories, as well as national communications, at regular intervals, both including supplementary information to demonstrate compliance with the Protocol". The Netherlands has submitted its Initial Report on 21 December 2006: http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/initial_report_final_191206.pdf
4. The acquisition of emission reduction units shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3.	Kyoto Protocol Article 6.1 (d)	**OK**	Table 2, section B.
5. Parties participating in JI shall designate national focal points for approving JI projects and have in place national guidelines and procedures for the approval of JI projects.	Marrakech Accords, JI Modalities, §20	**OK**	Ukraine has designated its Focal Point. National guidelines and procedures for approving JI projects have been published. Contact data in Ukraine: State Environmental Investment

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
			Agency of Ukraine 35 Urytskogo St, Kyiv, P.O. 03035 Phone: +380 44 594 91 11 Fax: +380 44 5949115 Ukrainian national guidelines and procedures for the approval of JI projects are available on the site www.neia.gov.ua. On February 22, 2006 the Cabinet of Ministers of Ukraine adopted the Regulation No. 206, which established assessment and implementation procedures of JI projects within the Kyoto Protocol.
6. The host Party shall be a Party to the Kyoto Protocol.	Marrakech Accords, JI Modalities, §21(a)/24	**OK**	The Ukraine is a Party (Annex I Party) to the Kyoto Protocol and has ratified the Kyoto Protocol at February 4th, 2004.
7. The host Party's assigned amount shall have been calculated and recorded in accordance with the modalities for the accounting of assigned amounts.	Marrakech Accords, JI Modalities, §21(b)/24	**OK**	The arranged extent for Ukraine is 100% of its emissions by 1990. In the Initial Report (Ukraine's Initial Report Under Article 7, Paragraph 4, Of The Kyoto Protocol) submitted by Ukraine to the UNFCCC Secretariat, on the 26 May 2006 the AAUs are quantified

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
			with: 925 362 174.39 (x 5) = 4 626 810 872 tCO_2e http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/ukraine_aa_report.pdf Currently Ukraine has submitted to the UNFCCC its fifth national communication on climate change under the Kyoto Protocol.
8. The host Party shall have in place a national registry in accordance with Article 7, paragraph 4.	Marrakech Accords, JI Modalities, §21(d)/24	**OK**	The designed system of the national registry has been described in the Initial Report: http://unfccc.int/files/national_reports/initial_reports_under_the_kyoto_protocol/application/pdf/ukraine_aa_report.pdf
9. Project participants shall submit to the independent entity a project design document that contains all information needed for the determination.	Marrakech Accords, JI Modalities, §31	**OK**	Project participants submitted PDD that contains all information needed for the determination.
10. The project design document shall be made publicly available and Parties, stakeholders and UNFCCC accredited observers shall be invited to, within 30 days, provide comments.	Marrakech Accords, JI Modalities, §32	**OK**	The PDD has been made publicly available through http://www.tuv.com.ua website from May, 12th to June, 12th 2011. TÜV Rheinland Group/TÜV Rheinland Ukraine published the

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
			project design document on the UNFCCC JI website (http://ji.unfccc.int) on 01/12/2011 and invited comments within by Parties, stakeholders and non-governmental organizations.
11. Documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts, in accordance with procedures as determined by the host Party shall be submitted, and, if those impacts are considered significant by the project participants or the host Party, an environmental impact assessment in accordance with procedures as required by the host Party shall be carried out.	Marrakech Accords, JI Modalities, §33(d)	**OK**	Table 2, section F.
12. The baseline for a JI project shall be the scenario that reasonably represents the GHGs emissions or removal by sources that would occur in absence of the proposed project.	Marrakech Accords, JI Modalities, Appendix B	**OK**	Table 2, section B.
13. A baseline shall be established on a project-specific basis, in a transparent manner and taking into account relevant national and/or sectoral policies and circumstances.	Marrakech Accords, JI Modalities, Appendix B	**OK**	Table 2, section B.
14. The baseline methodology shall exclude to earn ERUs for decreases in activity levels outside the project activity or due to force majeure.	Marrakech Accords, JI Modalities, Appendix B	**OK**	Table 2, section B.
15. The project shall have an appropriate monitoring plan.	Marrakech Accords,	**OK**	Table 2, section D.

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference/Comment
	JI Modalities, §33(c)		
16. A project participant is a legal entity authorized by a Party involved to participate in the JI project.	"Glossary of Joint Implementation Terms", Version 03.	**OK**	Table 2, section A.

Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
A.General description of the SSC project					
A.1. Title of the SSC project					
1.1. Is the title of the SSC project activity presented?	PDD	DR	Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town (under Track 2).	**OK**	**OK**
1.2. Is(are) the sectoral scope(s) to which the SSC project pertains presented?	PDD	DR	Sectoral scope 3: Energy demand	**OK**	**OK**
1.3. Are the version number and date of the document presented?	PDD	DR	Initial version 01 dated 15/03/2011 Current version 03.3 dated 15/06/2012	**OK**	**OK**
A.2. Description of the SSC project					
2.1. Is the purpose of the project indicated (with the concise, summarizing explanation of the situation existing prior to the starting date of the SSC project, baseline scenario and project scenario)?	PDD	DR	Concise, summarizing explanation of the situation existing prior to the starting date of the SSC project, baseline scenario and project scenario are absent. **CAR 01.** Please indicate summarizing explanation of the situation existing prior to the starting date of the SSC project (baseline scenario, project scenario).	**CAR 01**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
2.2. Is the history of the SSC Project including its JI component summarized?	PDD	DR	The description of the SSC Project history including its JI component is absent. **CAR 02.** Please describe the history of the SSC Project including its JI component.	**CAR 02**	**OK**
A.3. Project participants					
3.1. Are project participants and Party(ies) involved in the project listed?	PDD	DR	Ukraine (host Party): Kramatorsk Town Council. The Netherlands: Carbon Futures LLP.	**OK**	**OK**
3.2. Is contact information provided in Annex 1 of the PDD that is indicated in section A.3?	PDD	DR	The contact information of project participants is provided in Annex 1 of the PDD.	**OK**	**OK**
3.3. Is it indicated, if it is the case, if the Party involved is a host Party?	PDD	DR	Ukraine is indicated as a host Party.	**OK**	**OK**
3.4. Is it indicated, if it is the case, if the Party involved wishes to be considered as a project participant?	PDD	DR	Parties involved don't wish to be considered as project participants.	**OK**	**OK**
A.4. Technical description of the SSC project					
A.4.1. Location of the SSC project					
4.1.1. Host Party(ies)	PDD	DR	Ukraine	**OK**	**OK**
4.1.2. Region/State/Province etc.	PDD	DR	Donetska oblast	**OK**	**OK**
4.1.3. City/Town/Community etc.	PDD	DR	Kramatorsk Town	**OK**	**OK**
4.1.4. Detail of the physical location, including information allowing the unique identification of the SSC project					

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
4.1.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s) (this section should not exceed one page)?	PDD	DR	Yes, indicated geographic coordinates, the figure A.1. in section A.4.1.4. of the PDD and full list of budget and social facilities of Kramatorsk covered by the project in Annex 4 of the PDD clearly identify the location of the project. This information does not exceed one page.	**OK**	**OK**
A.4.2.SSC project type(s) and category(ies)					
4.2.1. Does the PDD appropriately specify and justify the SSC project type(s) and category(ies) that fall under: - One of the types and thresholds of JI SSC projects as defined in "Provisions for joint implementation SSC projects"? If the project contains more than one JI SSC project type component, does each component meet the relevant threshold criterion? - One of the SSC project categories defined in the most recent version of appendix B of annex II to decision 4/CMP.1, or an additional project category approved by the JISC in accordance with the relevant provision in "Provisions for joint implementation SSC projects"?	PDD	DR	Indicated category of the project does not correspond to the most recent version of appendix B of annex II to decision 4/CMP.1, or an additional project category approved by the JISC. **CAR 03**. Please indicate the SSC project category defined in the most recent version of appendix B of annex II to decision 4/CMP.1. The relevant threshold for II type JI SSC project is 60 GWh per year. The annual energy savings of the project activity is estimated to be about 6.8 GWh per year. **CL 01.** Please provide justification of the applicability of the SSC project, and how the project activity meets the threshold level of SSC JI project, referring to information from the normative document.	**CAR 03** **CL 01**	**OK** **OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
A.4.3. Technology(ies) to be employed, or measures, operations or actions to be implemented by the SSC project					
4.3.1. Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the SSC project described?	PDD	DR	**CAR 04.** Please provide information on the provision of training and service requirements at the objects in this project (additional training etc.).	**CAR 04**	**OK**
4.3.1.1. Does the project design engineering reflect current good practices?	PDD	DR	See section A.4.3. of the PDD.	**OK**	**OK**
4.3.1.2. Does the SSC project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	The project stipulates replacement of ICLs with CFLs which are energy saving lamps compared to ICLs, since they consume four-five times less power with similar lighting.	**OK**	**OK**
4.3.1.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	PDD	DR	If within the project lifecycle LED lamps become more affordable from the economic standpoint, they will be used instead of ICLs, since they consume about ten times less power than ICLs, while providing the same lighting level.	**OK**	**OK**
4.3.2. Are all relevant technical data and the implementation schedule indicated?	PDD	DR	See section A.4.3. of the PDD.	**OK**	**OK**
A.4.4. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed small-scale project, including why the emission reductions would not occur in the absence of the proposed SSC project, taking into account national and/or sectoral policies and circumstances:					

<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.*</th><th>MoV**</th><th>COMMENTS</th><th>Draft Concl.</th><th>Final Concl.</th></tr>
<tr><td>4.4.1. Is it stated how anthropogenic GHGs emission reductions are to be achieved? (This section should not exceed one page).</td><td>PDD</td><td>DR</td><td>CAR 05. Please state clearly how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed SSC project.</td><td>CAR 05</td><td>OK</td></tr>
<tr><td colspan="6">A.4.4.1. Estimated amount of emission reductions over the crediting period</td></tr>
<tr><td>4.4.1.1. Is it provided the estimated annual reduction for the chosen credit period in tCO_2e?</td><td>PDD</td><td>DR</td><td>Total estimated emission reductions over the crediting period are 15,859 tons of CO_2 equivalent.
Total estimated emission reductions for late crediting period after 2012 are 66,920 tons of CO_2 equivalent.</td><td>OK</td><td>OK</td></tr>
<tr><td colspan="6">A.4.5. Confirmation that the proposed SSC project is not a debundled component of a larger project</td></tr>
<tr><td>4.5.1. Is there a registered JI SSC project or an application to register which fulfills all of the following criteria indicated in the table?
<table>
<tr><th>Criteria</th><th>Yes/No</th></tr>
<tr><td>Existing JI SSC project has completed the determination process involving the same participants</td><td>No</td></tr>
<tr><td>The same project category and technology/measure</td><td>No</td></tr>
<tr><td>Determination of the project has been made publicly available in accordance with paragraph 34 of the JI guidelines within the previous 2 years</td><td>No</td></tr>
<tr><td>Project boundary of other project is within 1 km of the project boundary of the proposed SSC activity at the closest point</td><td>No</td></tr>
</table></td><td>PDD</td><td>DR</td><td>All the criteria are not provided.
CAR 06. Please provide in section A.4.5. of the PDD confirmation on behalf of the project participant that all of the criteria are not met.</td><td>CAR 06</td><td>OK</td></tr>
</table>

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
A.5. Project approval by the Parties involved					
5.1. Are written project approvals by the Parties involved attached? Are they unconditional?	SD	DR	Letter of Approval for JI project "Implementation of energy-efficient lighting system in the Donetsk Region with the use of Kyoto Protocol mechanism: replacement of incandescent lamps with energy-efficient ones at budget financed and social entities in the Kramatorsk town" #3236/23/6 dated 04/11/2011. Written project approval by a Party involved in JI small-scale project, other than the host Party was obtained – Declaration of Approval reference #2011JI55 on 02/02/2012, issued by "NL Agency" Ministry of Economic Affairs, Agriculture and Innovations.	**OK**	**OK**
B. Baseline					
B.1 Description and justification of the baseline chosen					
1.1. Is it indicated in PDD: - a detailed theoretical description of the baseline in a complete and transparent manner, as well as a justification of chosen baseline using the step-wise approach; - a justification of baseline setting; - references on regulations according to baseline	PDD	DR	The baseline scenario is defined as the "continuation of use of incandescent lamps". **CAR 07.** Please justify the choice of the baseline used for the category of SSC project, indicating criteria and references on regulations.	**CAR 07**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
setting.					
1.2. Is it indicated in the PDD that baseline was established:					
1.2.1. On a project-specific basis and/or using a multi-project emission factor?	PDD	DR	Please refer to **CAR 07.**		**OK**
1.2.2. In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors?	PDD	DR	Please refer to **CAR 07.**		**OK**
1.2.3. 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.	PDD	DR	Please refer to **CAR 07.**		**OK**
1.2.4. In such a way that emission reduction units (ERUs) cannot be earned for decreases in activity levels outside the project activity or due to force majeure.	PDD	DR	Please refer to **CAR 07.**		**OK**
1.2.5. Taking account of uncertainties and using conservative assumptions.	PDD	DR	Please refer to **CAR 07.**		**OK**
1.3. Does the PDD explicitly indicate the approach used for identifying the baseline with references on regulations?	PDD	DR	Please refer to **CAR 07.**		**OK**
1.4. Are number, name and version of the methodology clearly indicated in the context of the SSC project?	PDD	DR	**CAR 08**. Please provide a description of the methodology applied in the context of the SSC project with all references on regulations.	**CAR 08**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
1.5. Is the applied version the most recent one and/or is this version still applicable?	PDD	DR	Please refer to **CAR 08.**		**OK**
1.6. Is it described how the chosen approach is applied in the context of the SSC project?	PDD	DR	**CAR 09.** Please indicate the application of the chosen approach for baseline setting for the category of SSC project, indicating criteria and references on regulations.	**CAR 09**	**OK**
1.7. Are the key information and data used to establish the baseline (variables, parameters, data sources etc.) indicated in tabular form?	PDD	DR	**CAR 10**. Please indicate the key information and data used to establish the baseline (variables, parameters, data sources etc.) in tabular form.	**CAR 10**	**OK**
1.8. Are all regulations and sources clearly referenced?	PDD	DR	Please refer to **CAR 07, CAR 08, CAR 09.**		**OK**
B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the SSC project					
2.1. Is the step-wise approach used for the demonstration of project additionality indicated and described?	PDD	DR	There is a description of investment, technological and other barriers faced by the project activity in section B.2 of the PDD. **CL 02**. Please clarify how the proper utilization of expired CFLs will be implemented?	**CL 02**	**OK**
2.2. Does the PDD provide a justification of the applicability of the approach with a clear and transparent description with relevant reference on regulations?	PDD	DR	**CAR 11.** Please provide justification for the use of “Appendix B of the simplified modalities and procedures for SSC CDM project activities" to demonstrate additionality of SSC JI project.	**CAR 11**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
2.3. Is it described how the chosen approach is applied in the context of the SSC project?	PDD	DR	**CAR 12.** Please indicate the application of the chosen approach for the category of SSC project, indicating criteria and references on regulations.	**CAR 12**	**OK**
2.4. Are additionality proofs provided?					
2.4.1. If the application of the most recent version of the "Tool for the demonstration and assessment of additionality" is chosen, are all explanations, descriptions and analyses made in accordance with the selected tool or method?	PDD	DR	Not applied.	**OK**	**OK**
2.4.2. Is an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the SSC project scenario included?	PDD	DR	**CAR 13**. Please provide a description of the baseline scenario. **CAR 14**. Please provide a description of the project scenario. **CAR 15**. Please provide an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario.	**CAR 13** **CAR 14** **CAR 15**	**OK** **OK** **OK**
2.4.3. Is it demonstrated that the project activity itself is not a likely baseline scenario?	PDD	DR	**CAR 16**. Please demonstrate that the project activity itself is not a likely baseline scenario.	**CAR 16**	**OK**
2.5. Are national policies and circumstances relevant to the baseline of the proposed project activity summarized?	PDD	DR	National policies and circumstances relevant to the baseline of the proposed project activity are summarized in section B.2. of the PDD.	**OK**	**OK**
B.3. Description of how the definition of the project boundary is applied to the SSC project					
3.1. Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources	PDD	DR	Project boundaries are indicated in section B.3 of the PDD.	**OK**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
of GHGs that are: - under the control of the project participants; - reasonably attributable to the project; - significant?					
3.2. Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 3.1. above?	PDD	DR	See section B.3. of the PDD.	**OK**	**OK**
3.3. Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	PDD	DR	**CAR 17.** Please indicate the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate.	**CAR 17**	**OK**
3.4. Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	PDD	DR	Yes. All gases and sources included are explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified.	**OK**	**OK**
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline					
4.1 Is the date of the baseline setting presented (in DD/MM/YYYY)?	PDD	DR	Date of completion of the baseline study: 15/03/2011.	**OK**	**OK**
4.2 Is the contact information of persons setting the baseline provided?	PDD	DR	The contact information of the person/entity setting the baseline is indicated in section B.4.	**OK**	**OK**
4.3 Is the person/entity also a project participant listed in Annex 1 of PDD?	PDD	DR	ICF Consulting and Agency for Rational Energy Use and Ecology (ARENA-ECO) are not project participants listed	**OK**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
			in Annex 1 of the PDD.		
C. Duration of the SSC project/crediting period					
C.1. Starting date of the SSC project					
1.1 Is the project's starting date clearly defined?	PDD	DR	**CAR 18.** Please indicate only one starting date of the project.	**CAR 18**	**OK**
1.2 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, SD	DR	The project operational phase started on 07/02/2011 after replacement of ICLs with CFLs and initiated maintenance of the operation hours' log.	**OK**	**OK**
1.3 Is the starting date after the beginning of 2000?	PDD	DR	Yes. The starting date is after the beginning of 2000.	**OK**	**OK**
C.2. Expected operational lifetime of the SSC project					
2.1. Is the project's operational lifetime clearly defined in years and months?	PDD	DR	10 years/120 months	**OK**	**OK**
C.3. Length of the crediting period					
3.1. Is the length of the crediting period specified in years and months?	PDD	DR	See section C.3. of the PDD.	**OK**	**OK**
3.2. 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?	PDD	DR	Yes. See section C.3. of the PDD.	**OK**	**OK**
3.3. 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	PDD	DR	Yes. See section C.3. of the PDD.	**OK**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?					
D. Monitoring Plan					
D.1. Description of monitoring plan chosen					
1.1. Is it indicated in PDD a detailed theoretical description in a complete and transparent manner, as well as a justification of chosen monitoring plan using the step-wise approach?	PDD	DR	The monitoring plan is not described in a complete and transparent manner, a reference to the methodology is absent. **CAR 19**. Please provide a description of monitoring plan using the step-wise approach with reference to the applied methodology.	**CAR 19**	**OK**
1.2. Does the PDD explicitly indicate the chosen approach used for monitoring with references on regulations?	PDD	DR	**CAR 20**. Please explicitly define and describe chosen approach used for monitoring and indicate application of this approach.	**CAR 20**	**OK**
1.3. Is the applied methodology considered being the most appropriate one?	PDD	DR	Please refer to **CAR 19**.		**OK**
1.4. Are the description of the assumptions, formulas, parameters, data sources and key factors indicated?	PDD	DR	Please refer to **CAR 19.**		**OK**
1.4.1. Is it stated how uncertainties are taken into account and conservativeness is safeguarded?	PDD		Please refer to **CAR 19.**		**OK**
1.5. Is it described how the chosen approach is applied in the context of the SSC project?	PDD		Please refer to **CAR 20.**		**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
1.6. If national or international monitoring standart has to be applied to monitor certain aspects of the project, is this standert identified and is the reference as to where a detailed description of the standart can be found provided?	PDD	DR	Application of the national or international standards for monitoring certain aspects of the project monitoring is absent.	**OK**	**OK**
1.7. Is it indicated how data to be collected to monitor emission reductions from SSC project will be archived?	PDD	DR	Please refer to **CAR 19**.		**OK**
1.8. If applicable please provide the information relating to the collection and archiving of all relevant data necessary for assessing leakage effects?	PDD	DR	Please refer to **CAR 19**.		**OK**
D.2. Data to be monitored					
2.1. Are tables for each data and parameter indicated?	PDD	DR	Yes. Tables are indicated for each data and parameter in section D.2. of the PDD.	**OK**	**OK**
2.2. Is all the required data / parameters according to the used methodology indicated?	PDD	DR	Please refer to **CAR 19** and **CAR 20**. **CL 03**. Please clarify deviation from the methodology AMS IIJ, version 04 specified in the PDD.	**CL 03**	**OK**
2.3. Does the monitoring plan explicitly and clearly distinguish: - 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? - Data and parameters that are not monitored throughout the crediting period, but are determined	PDD	DR	Information is indicated in the section D.1. of the PDD. Data that is not monitored is absent.	**OK**	**OK**

<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.*</th><th>MoV**</th><th>COMMENTS</th><th>Draft Concl.</th><th>Final Concl.</th></tr>
<tr><td>only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination?
- Data and parameters that are monitored throughout the crediting period?</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="6">2.4.Fill in the required amount of sub checklists for fixed data and comment any line answered with “No”</td></tr>
<tr><td>2.4.1. Parameter Title $Q_{PJ,i}$
Number (quantity) pieces of equipment of type ‘i’ distributed or installed under the project activity (units) instead of ICLs.
<table>
<tr><th>Data Checklist</th><th>Yes/No</th></tr>
<tr><td>Is the title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Are data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Is the appropriate description of parameter indicated?</td><td>Yes</td></tr>
<tr><td>Is the time of monitoring clearly indicated?</td><td>Yes</td></tr>
<tr><td>Is the source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Is the correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>Yes</td></tr>
<tr><td>Is the choice of data correctly justified or is the measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Are quality control and quality assurance procedures indicated?</td><td>Yes</td></tr>
</table></td><td>PDD</td><td>DR</td><td>See section D.2. of the PDD.</td><td>OK</td><td>OK</td></tr>
</table>

<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.*</th><th>MoV**</th><th>COMMENTS</th><th>Draft Concl.</th><th>Final Concl.</th></tr>
<tr><td>2.4.2. Parameter Title $P_{i, BL}$
Rated power of the baseline lighting devices of the group of “i” lighting devices (Watts).
<table>
<tr><th>Data Checklist</th><th>Yes/No</th></tr>
<tr><td>Is the title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Are data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Is the appropriate description of parameter indicated?</td><td>Yes</td></tr>
<tr><td>Is the time of monitoring clearly indicated?</td><td>Yes</td></tr>
<tr><td>Is the source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Is the correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>No</td></tr>
<tr><td>Is the choice of data correctly justified or is the measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Are quality control and quality assurance procedures indicated?</td><td>Yes</td></tr>
</table></td><td>PDD, SD</td><td>DR</td><td>CAR 21. Please provide a proof of power rating of the baseline lighting devices that was recorded during the distribution of CFLs (100 W and 150 W).</td><td>CAR 21</td><td>OK</td></tr>
</table>

<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.*</th><th>MoV**</th><th>COMMENTS</th><th>Draft Concl.</th><th>Final Concl.</th></tr>
<tr><td>2.4.3. Parameter Title $P_{i, PJ}$
Rated power of the project lighting devices of the group of “i” lighting devices (Watts).
<table>
<tr><th>Data Checklist</th><th>Yes/No</th></tr>
<tr><td>Is the title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Are data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Is the appropriate description of parameter indicated?</td><td>Yes</td></tr>
<tr><td>Is the time of monitoring clearly indicated?</td><td>Yes</td></tr>
<tr><td>Is the source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Is the correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>No</td></tr>
<tr><td>Is the choice of data correctly justified or is the measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Are quality control and quality assurance procedures indicated?</td><td>Yes</td></tr>
</table></td><td>PDD, SD</td><td>DR</td><td>CAR 22. Please provide a proof of power rating of the project lighting devices that was recorded during the distribution CFLs (20 W and 32 W).</td><td>CAR 22</td><td>OK</td></tr>
</table>

<table>
<tr><th>CHECKLIST QUESTION</th><th>Ref.*</th><th>MoV**</th><th>COMMENTS</th><th>Draft Concl.</th><th>Final Concl.</th></tr>
<tr><td>2.4.4. Parameter Title O_i
Average daily operating hours of the devices of the group of “i” baseline devices.
<table>
<tr><th>Data Checklist</th><th>Yes/No</th></tr>
<tr><td>Is the title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Are data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Is the appropriate description of parameter indicated?</td><td>Yes</td></tr>
<tr><td>Is the time of monitoring clearly indicated?</td><td>Yes</td></tr>
<tr><td>Is the source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Is the correct value provided?</td><td>Yes</td></tr>
<tr><td>Has this value been verified?</td><td>No</td></tr>
<tr><td>Is the choice of data correctly justified or is the measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Are quality control and quality assurance procedures indicated?</td><td>Yes</td></tr>
</table></td><td>PDD, SD</td><td>DR</td><td>CL 04. According to the methodology AMS IIJ version 04, item 12(b), value for O_i greater than 5 hours per 24 hour period may not be used under this methodology. Please clarify the value taken 10 hours.
CL 05. Please provide the “preliminary feasibility study” for average annual operating hours of the devices of the group of “i” baseline devices.</td><td>CL 04
CL 05</td><td>OK
OK</td></tr>
<tr><td>2.4.5. Parameter Title $EF_{CO2, ELEC,y}$
Specific indirect carbon dioxide emissions from electric power consumption by the 2nd voltage class consumers in ‘y’ year.
<table>
<tr><th>Data Checklist</th><th>Yes/No</th></tr>
<tr><td>Is the title in line with methodology?</td><td>No</td></tr>
<tr><td>Are data unit correctly expressed?</td><td>No</td></tr>
<tr><td>Is the appropriate description of parameter indicated?</td><td>Yes</td></tr>
</table></td><td>PDD</td><td>DR</td><td>CL 06. The parameter title is not in line with methodology.
CL 07. Please clarify the data unit “kg CO_2e/kW•h.
CL 08. Please clarify why this parameter is referred to the monitoring, if its value is given in Table E.3 for all years of the project.</td><td>CL 06
CL 07
CL 08</td><td>OK
OK
OK</td></tr>
</table>

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
Is the time of monitoring clearly indicated? Yes Is the source clearly referenced? Yes Is the correct value provided? Yes Has this value been verified? Yes Is the choice of data correctly justified or is the measurement method correctly described? Yes Are quality control and quality assurance procedures indicated? Yes					
2.5. Is information on the collection and archiving of information on the environmental impacts of the SSC project, in accordance with the procedures as required by the host Party, provided (if applicable)?	PDD	DR	Ecological impact of the SSC JI project is absent under condition of compliance of rules of handling and storage of CFLs that are indicated in section F. of the PDD.	**OK**	**OK**
D.3. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored					
3.1. Are the quality assurance and control procedures for the monitoring process established? 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?	PDD, SD	DR, I	**CL 09**. Please clarify the parameter QB,i indicated in section D.3. of the PDD.	**CL 09**	**OK**
D.4.Brief description of the operational and management structure that will be applied in implementing the monitoring plan					
4.1. Is it described briefly the operational and management structure that the project participants(s) will implement in order to monitor emission reduction and any leakage effects generated by the project?	PDD	DR, I	**CL 10**. "At the beginning of each monitoring interval, project proponent will compile and update the record of number of failed CFLs collected from the facilities. The utilization of the failed	**CL 10** **CL 11**	**OK** **OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
			CLFs would be carried out as per the national regulations and proper documentation shall be maintained to facilitate verification by the AIE". Please clarify the underlined. **CL 11**. Please provide the manual (booklet) to ensure proper implementation of the project.		
4.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	PDD	DR, I	Yes. Responsibilities and institutional arrangements for data collection and archiving are provided in Table D.6., section D.4. of the PDD.	**OK**	**OK**
4.3. Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type?	PDD	DR	The monitoring plan and existing operational structure allow tracking GHGs emission reduction by each facility, which is the advanced practice for such type projects.	**OK**	**OK**
4.4. Is it indicated in the monitoring plan that data monitored and required for determination are to be kept for two years after the last transfer of ERUs for the project?	PDD	DR, I	**CAR 23**. Please provide documentary manual, which indicates that data monitored and required for determination are to be kept for two years after the last transfer of ERUs for the project.	**CAR 23**	**OK**
D.5. Name of person(s)/entity(ies) establishing the monitoring plan					
5.1. Is the contact information of person(s)/entity(ies) establishing the monitoring plan provided?	PDD	DR	The contact information is provided in section B.4. of the PDD.	**OK**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
5.2. Is the person/entity also a project participant listed in Annex 1 of PDD?	PDD	DR	See section B.4. of the PDD.	**OK**	**OK**
E. Estimation of greenhouse gases emission reductions					
E.1. Estimated project emissions and formulae used in the estimation					
1.1. Are described the formulae used to estimate anthropogenic emissions by source of GHGs due to the SSC project (for each gas, source etc.; emissions in units of CO_2 equivalent)?	PDD, SD	DR	**CL 12**. Please clarify why the electricity consumption by the project activity is calculated, not the electricity saved by the project activity (according to the methodology). **CL 13**. Please justify the ex-ante value of parameter O_i indicated in table E.1. **CL 14**. Please clarify why other formulae are used in spreadsheets for calculations and in a different order than described in the section E of the PDD (it is difficult to follow the settlement procedures). There is no indication of parameters titles in spreadsheets according to formulae specified in the PDD.	**CL 12** **CL 13** **CL 14**	**OK** **OK** **OK**
1.1.1. Is there a description of calculation of GHGs project emissions in accordance with the formula? (supporting documentation)	PDD, SD	DR	Supporting documentation includes estimates of the project GHGs emissions.	**OK**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
E.2. Estimated leakage and formulae used in the estimation, if applicable.					
2.1. Are described the formulae used to estimate leakage due to the project activity where required (for each gas, source etc.; emissions in units of CO_2 equivalent)?	PDD	DR	It is stated in section E.2. Of the PDD that estimation of leakage is not applicable.	**OK**	**OK**
2.1.1. Is there a description of calculation of leakage in accordance with the formula? (supporting documentation)	PDD, SD	DR	**CAR 24**. Please provide a formulae (with reference to the source) according to which the calculation of leakage is described and values in Table E.5 section E.2. of the PDD are provided.	**CAR 24**	**OK**
2.2. If not applicable, is it stated in the PDD?	PDD	DR	It is stated in section E.2. of the PDD that estimation of leakage is not applicable.	**OK**	**OK**
E.3. Sum of E.1 and E.2.					
3.1. Does the sum of E.1. and E.2. represent the project activity emissions?	PDD, SD	DR	See section E.3. of the PDD.	**OK**	**OK**
E.4. Estimated baseline emissions and formulae used in the estimation					
4.1. Are the formulae used to estimate the anthropogenic emissions by source of GHGs in the baseline using the baseline methodology for the applicable project category described (for each gas, source etc.; emissions in units of CO2 equivalent)?	PDD, SD	DR	**CL 15**. Please clarify why the electricity consumption is calculated, not the electricity saved by the project activity according to the methodology used for this category of SSC project. **CL 16**. Please justify the value of parameter O_i indicated in table E.6. **CAR 25**. Please justify the choice to use in this project such values of CEF.	**CL 15** **CL 16** **CAR 25**	**OK** **OK** **OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
4.1.1. . Is there a description of calculation of GHGs baseline emissions in accordance with the formula? (supporting documentation)	PDD, SD	DR	Supporting documentation includes estimates of the baseline GHGs emissions.	**OK**	**OK**
E.5. Difference between E.4. and E.3. representing the emission reductions of the project					
5.1. Does the difference between E.4. and E.3. represent the emission reductions due to the project during a given period?	PDD, SD	DR	Emission reductions due to the project are indicated in section E.6.	**OK**	**OK**
E.6. Table providing values obtained when applying formulae above					
6.1. Is the data provided under this section in consistency with data as presented by other chapters E of the PDD?	PDD, SD	DR	The data provided under this section is in consistency with data as presented by other chapters of the PDD.	**OK**	**OK**
6.2. Is there a table providing the total value of emission reductions?	PDD	DR	The total value of emission reductions is indicated in proper tabular format in section E.6. of the PDD.	**OK**	**OK**
F. Environmental impacts					
F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party					
1.1. Has an analysis of the environmental impacts of the SSC project been sufficiently described?	PDD	DR	**CL 17**. Please clarify how the efficient collection and disposal of failed CFLs will be provided.	**CL 17**	**OK**
1.2. Are there any host Party requirements for an Environmental Impact Assessment (EIA)?	PDD	DR	For host Party requirements an EIA is not required.	**OK**	**OK**
1.3. Are transboundary environmental impacts considered in the analysis?	PDD	DR	**CL 18**. Please clarify if transboundary environmental impacts are considered in the project implementation.	**CL 18**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
1.4. Are all regulations and sources clearly referenced?	PDD	DR	All references to relevant regulations and sources are provided in section F.1. of the PDD.	**OK**	**OK**
F.2. If environmental impacts are considered significant by the project participants or the host Party, provision of conclusions and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party					
2.1. Will the SSC project create any adverse environmental impacts considered significant by the project participants or the host Party?	PDD	DR, I	The SSC project will not create any adverse environmental impacts on condition of environmentally safe collection, storage and disposal of CFLs, consistent with applicable standards to prevent environmental pollution by mercury.	**OK**	**OK**
2.2. Have conclusions and all references to the supporting documentation on the analysis of the environmental impacts of the project been indicated?	PDD	DR	**CAR 26**. Please provide the references to the documentation that confirms the absence of EIA requirements for projects of this type.	**CAR 26**	**OK**
G. Stakeholders' comments					
G.1. Information on stakeholders' comments on the project, as appropriate					
1.1. Have relevant stakeholders been consulted and how?	PDD	DR	**CAR 27**. Please provide the details on the process of informing stakeholders.	**CAR 27**	**OK**
1.1.1. Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	Please refer to **CAR 27**.		**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
1.2. Is there a list of stakeholders from whom comments on the project have been received?	PDD	DR	Please refer to **CAR 27**.		**OK**
1.3. Is the nature of comments provided?	PDD	DR	Please refer to **CAR 27**.		**OK**
1.4. Has due account been taken of any stakeholder comments received?	PDD	DR	Please refer to **CAR 27**.		**OK**
H. Annexes					
Annex 1: Contact information on project participants					
1.1. Is the information provided in consistency with the one given under section A.3?	PDD	DR	The information provided is in a consistency with the one given under section A.3.	**OK**	**OK**
1.2. Is the contact information of all entities and parties as project participants indicated?	PDD	DR	The contact information of all entities and parties as project participants is indicated in Annex 1.	**OK**	**OK**
Annex 2: Baseline information					
2.1. If additional background information on baseline data is provided: is this information in consistency with data presented by other sections of the PDD?	PDD	DR	At the moment of the development of the PDD (PDD dated 15/03/2011) all the measures implemented under the project (late January, early February - according to operation hours' log for Philips energy saving lamps). According to the section B.4. of the PDD "The baseline emissions for the project activity will be calculated from the available information on the replaced number of CFL and its usage during the project lifetime. Date of	**CL 19**	**OK**

CHECKLIST QUESTION	Ref.*	MoV**	COMMENTS	Draft Concl.	Final Concl.
			completion of the baseline study: 15/03/2011". **CL 19**. Please clarify why data on the baseline scenario is not provided.		
2.2. Is the data provided verifiable? Has sufficient evidence been provided to the determination team?	PDD, SD	DR	Yes. The evidence of the number of ICL replaced by CFL in 2011 at the time of project implementation in the form of Transfer and Acceptance Act on ICL is provided.	**OK**	**OK**
Annex 3: Monitoring plan					
3.1. If additional background information on monitoring is provided: is this information in consistency with data presented by other sections of the PDD?	PDD	DR	The monitoring plan is indicated in section D.	**OK**	**OK**
Annex 4: Budget and social facilities of Kramatorsk Town where ICLs have been replaced with CFLs					
4.1. Is this information in consistency with data presented by other sections of the PDD?	PDD	DR	The full list of budget and social facilities of Kramatorsk Town covered by the project is listed in Annex 4.	**OK**	**OK**

Ref.* **-** gives reference to Category 1 and Category 2 documents (see section 3.1. of the Determination Report) where the answer to the checklist question or item is found.
MoV** - Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.

Table 3 Resolution of Corrective Action and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CAR 01. Please indicate summarizing explanation of the situation existing prior to the starting date of the SSC project (baseline scenario, project scenario).	Table 2, checklist question A.2.1.	In section A.2. of PDD, situation existing prior to the starting date of the SSC project (baseline scenario, project scenario) was indicated.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 02. Please describe the history of the SSC Project including its JI component.	Table 2, checklist question A.2.2.	In section A.2. of PDD, history of the SSC Project including its JI component was indicated.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 03. Please indicate the SSC project category defined in the most recent version of appendix B of annex II to decision 4/CMP.1.	Table 2, checklist question A.4.2.1.	In section A.4.2. the SSC project category defined in the most recent version of appendix B of annex II to decision 4/CMP.1 was indicated.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 04. Please provide information on the provision of training and service requirements at the objects in this project (additional training etc.).	Table 2, checklist question A.4.3.1.	Answer 1: Information on the provision of training and service requirements at the objects in this project was provided. Answer 2: For avoiding repetition of information on provisions for training and service requirements at the facilities in this project, information was indicated in section D. In section A.4.3. indicated reference to section D.	Conclusion 1: Please provide the reference on section of the PDD that describes in detail the provision of training and control of personnel. Conclusion 2: **The issue is closed** based on sufficient information in PDD version 03.
CAR 05. Please state clearly how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed SSC project.	Table 2, checklist question A.4.4.1.	Answer 1: It was indicated how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed SSC project. Answer 2: In section A.2., information on	Conclusion 1: Please provide in section A.2. information on how will be reduced anthropogenic emissions of greenhouse gases from the implemented measure to

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		reduction of direct emissions of greenhouse gases under the project activity was indicated.	the place of direct emissions of greenhouse gases. Conclusion 2: Corrections in PDD version 03 are sufficient. **The issue is closed.**
CAR 06. Please provide in section A.4.5. of the PDD confirmation on behalf of the project participant that all of the criteria are not met.	Table 2, checklist question A.4.5.1.	In section A.4.5. was indicated that Kramatorsk Town Council confirms that the proposed SSC project is not a separate component of a larger project since there is not registered SSC JI project or application for registration of other SSC JI project, where: - existing JI SSC project has completed the determination process involving the same participants; - the same project category and technology/measure are used; - determination of the project has been made publicly available in accordance with paragraph 34 of the JI guidelines within the previous 2 years; Project boundary of other project is within 1 km of the project boundary of the proposed SSC activity at the closest point.	Corrections in PDD version 02 are sufficient. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CAR 07. Please justify the choice of the baseline used for the category of SSC project, indicating criteria and references on regulations.	Table 2, checklist question B.1.1.	In section B.1. was indicated that description and justification of the baseline chosen is provided in accordance with "Guidance on criteria for baseline setting and monitoring", version 03 and in accordance with "Guidelines for users of the joint implementation project PDD form for SSC projects and the form for submission of bundled joint implementation SSC projects ", version 04.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 08. Please provide a description of the methodology applied in the context of the SSC project with all references on regulations.	Table 2, checklist question B.1.4.	In section B.1. was indicated that description and justification of the baseline chosen is provided in accordance with "Guidance on criteria for baseline setting and monitoring", version 03 and in accordance with "Guidelines for users of the joint implementation project PDD form for SSC projects and the form for submission of bundled joint implementation SSC projects", version 04.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 09. Please indicate the application of the chosen approach for baseline setting for the category of SSC project, indicating criteria and references on regulations.	Table 2, checklist question B.1.6.	Answer 1: It was indicated. Answer 2: In section B.1. was indicated that description and justification of the baseline chosen is provided in accordance with "Guidance on criteria for baseline setting and monitoring", version 03 and in accordance with "Guidelines for users of the joint implementation project PDD form	Conclusion 1: CAR is not closed. Please indicate the application of the chosen approach for baseline setting for the category of SSC project, indicating criteria and references on regulations. Conclusion 2: **The issue is**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		for SSC projects and the form for submission of bundled joint implementation SSC projects", version 04.	**closed** based on appropriate corrections in PDD version 03.
CAR 10. Please indicate the key information and data used to establish the baseline (variables, parameters, data sources etc.) in tabular form.	Table 2, checklist question B.1.7.	Answer 1: Information was added. Answer 2: In section B.1. the reference to order of National Electricity Regulation Commission of Ukraine which designate classes consumers on the basis of voltage of grid. Also, It was indicated that unit "kg CO_2/kWh" shows emission of GHG in CO_2 equivalent for production and transportation electricity for consumers.	Conclusion 1: Please provide the reference to the document according to which was defined voltage class consumers. Conclusion 2: Corrections in PDD version 03 are sufficient. **The issue is closed.**
CAR 11. Please provide justification for the use of "Appendix B of the simplified modalities and procedures for SSC CDM project activities" to demonstrate additionality of SSC JI project.	Table 2, checklist question B.2.2.	Approach is not used in PDD.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 12. Please indicate the application of the chosen approach for the category of SSC project, indicating criteria and references on regulations.	Table 2, checklist question B.2.3.	Answer 1: It is indicated. Answer 2: In section B.2. was indicated that for demonstration of additionality of the project JI specific approach is used for in accordance with the paragraph 44(a) of the Annex I to the "Guidance on criteria for baseline setting and monitoring", version 03 and in accordance with "Guidelines for users of the joint implementation project PDD form for SSC projects and the form for submission of	Conclusion 1: CAR is not closed. Please indicate the application of the chosen approach for the category of SSC project, indicating criteria and references on regulations. Conclusion 2: **The issue is closed** based on appropriate corrections in PDD version 03.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		bundled joint implementation SSC projects", version 04.	
CAR 13. Please provide a description of the baseline scenario.	Table 2, checklist question B.2.4.2.	In section B.2. the description of the baseline scenario was provided.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 14. Please provide a description of the project scenario.	Table 2, checklist question B.2.4.2.	In section B.2. the description of the project scenario was provided.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 15. Please provide an analysis showing why the emissions in the baseline scenario would likely exceed the emissions in the project scenario.	Table 2, checklist question B.2.4.2.	Answer 1: Analysis was provided. Answer 2: In section B.2. was indicated that emission of GHG in baseline scenario is higher than emission of GHG in SSC project because rated power of CFLs less than rated power of ICLs with similar light power.	Conclusion 1: Please indicate why the emissions in the baseline scenario would likely exceed the emissions in the project scenario. Conclusion 2: **The issue is closed** based on appropriate corrections in PDD version 03.
CAR 16. Please demonstrate that the project activity itself is not a likely baseline scenario.	Table 2, checklist question B.2.4.3.	In section B.2. was indicated that emission of GHG in baseline scenario is higher than emission of GHG in SSC project because rated power of CFLs less than rated power of ICLs with similar light power.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 17. Please indicate the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate.	Table 2, checklist question B.3.3.	Answer 1: The flow chart was indicated. Answer 2: In this case under the term of "electricity grid" means electric network for transmission energy and power stations for producing energy.	Conclusion 1: Please clarify why electric grid on the figure B.1. is indicated as a GHGs emission source. Conclusion 2: Corrections in PDD version 03 are sufficient. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CAR 18. Please indicate only one starting date of the project.	Table 2, checklist question C.1.1.	Only one starting date of the project was indicated in section C.1. From section C.1. the date of beginning of investment phase was excluded. This date is indicated in history of SSC JI project.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 19. Please provide a description of monitoring plan using the step-wise approach with reference to the applied methodology.	Table 2, checklist question D.1.1.	Answer 1: The description of monitoring plan using the step-wise approach was provided. Answer 2: In section D.1. was indicated that all data will be kept for at least 2 years after the crediting period and collected in paper format (at the facilities) and in electronic format (at the special working group and at IC "Ecosystem") with aim to ensure reliability of information storage. And that detailed information is indicated in section D.4.	Conclusion 1: Please indicate briefly in this section how monitoring data will be archived as it indicated in section D.4. Conclusion 2: Corrections in PDD version 03 are sufficient. **The issue is closed.**
CAR 20. Please explicitly define and describe chosen approach used for monitoring and indicate application of this approach.	Table 2, checklist question D.1.2.	In section D.1. was indicated that monitoring plan of the GHG emissions in the project and baseline scenarios and the GHG emissions reduction is elaborated on the basis of requirements of "Guidance on criteria for baseline setting and monitoring", version 03 and based on specific JI approach and partly on methodology AMS II.J "Demand-side activities for efficient lighting technologies", version 04 and	**The issue is closed** based on appropriate corrections in PDD version 02.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
		indicated application of this approach.	
CAR 21. Please provide a proof of power rating of the baseline lighting devices that was recorded during the distribution of CFLs (100 W and 150 W).	Table 2, checklist question D.2.4.2.	Answer 1: Transfer and Acceptance Act was provided. Answer 2: Undamaged Transfer and Acceptance Act was provided.	Conclusion 1: The file of Transfer and Acceptance Act is damaged. Please provide the Transfer and Acceptance Act. Conclusion 2: **The issue is closed** based on submitted to the determination group documents.
CAR 22. Please provide a proof of power rating of the project lighting devices that was recorded during the distribution CFLs (20 W and 32 W).	Table 2, checklist question D.2.4.3.	Answer 1: Transfer and Acceptance Act was provided. Answer 2: Undamaged Transfer and Acceptance Act was provided.	Conclusion 1: The file of Transfer and Acceptance Act is damaged. Please provide the Transfer and Acceptance Act. Conclusion 2: **The issue is closed** based on submitted to the determination group documents.
CAR 23. Please provide documentary manual, which indicates that data monitored and required for determination are to be kept for two years after the last transfer of ERUs for the project.	Table 2, checklist question D.4.4.	In section D.4. was indicated that monitoring data (original logs and relevant acts) will be collected in paper format and kept for at least 2 years after the crediting period. Aggregated information in Microsoft Excel format will be saved on a hard drive and kept for at least 2 years by a representative of Ecosystem after the crediting period.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 24. Please provide a formulae (with reference to the source) according to which the calculation of leakage is	Table 2, checklist question E.2.1.1.	The table was moved to section D.1. Required correction was made.	**The issue is closed** based on appropriate corrections in PDD version 02.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
described and values in Table E.5 section E.2. of the PDD are provided.			
CAR 25. Please justify the choice to use in this project such values of CEF.	Table 2, checklist question E.4.1.	The approach for this value was changed (section D.1.). During the monitoring, this value will be updated in accordance with orders of the State Environmental Investment Agency of Ukraine. For preliminary estimates, the value for 2011 is used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CAR 26. Please provide the references to the documentation that confirms the absence of EIA requirements for projects of this type.	Table 2, checklist question F.2.2.	In section F.2. was indicated that The project participants are not required to perform the Environmental Impact Assessment (EIA) according to the Ukrainian law, in particular, Article 27 of the Law of Ukraine "On environmental protection", Article 14 of the Law of Ukraine "On environmental expertise", "DBN A.2.2.-1-2003 content and structure of the Environmental Impact Assessment (EIA) materials upon designing and construction of enterprises, buildings and facilities"**,** **"**DBN A.2.2.-3-2004 content, development procedure, agreement and approval of construction project documentation"**.**	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CAR 27. Please provide the details on the process of informing stakeholders.	Table 2, checklist question G.1.1.	In section G.1., details on the process of informing stakeholders were provided.	Corrections in PDD version 02 are sufficient. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
CL 01. Please provide justification of the applicability of the SSC project, and how the project activity meets the threshold level of SSC JI project, referring to information from the normative document.	Table 2, checklist question A.4.2.1.	In section A.4.2. was indicated that for projects of II type reduction of electricity consumption under the project activity should be less than 60 GWh per year.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CL 02. Please clarify how the proper utilization of expired CFLs will be implemented?	Table 2, checklist question B.2.1.	Answer 1: The issue was clarified. Answer 2: The detailed description is provided in sections D.1. and F.1. of the PDD. In section B.2.1. was provided reference for these sections. Also, it was indicated that Carbon Futures LLP as the lamps owner is responsible for proper utilization.	Conclusion 1: The detailed description is provided in sections D.1. and F.1. of the PDD. Please clarify how and who will implement the proper utilization of expired CFLs. Conclusion 2: **The issue is closed** based on appropriate corrections in PDD version 03.
CL 03. Please clarify deviation from the methodology AMS IIJ, version 04 specified in the PDD.	Table 2, checklist question D.2.2.	In PDD JI specific approach with elements of methodology AMS-II.J/Version 04 (sections B.1. and D.1.) is used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CL 04. According to the methodology AMS IIJ version 04, item 12(b), value for O_i greater than 5 hours per 24 hour period may not be used under this methodology. Please clarify the value taken 10 hours.	Table 2, checklist question D.2.4.4.	In PDD JI specific approach with elements of methodology AMS-II.J/Version 04 (sections B.1. and D.1.) is used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CL 05. Please provide the "preliminary feasibility study" for average annual operating hours of the devices of the	Table 2, checklist question D.2.4.4.	Answer 1: The value was set according to first monitoring survey. Answer 2: Information on the first	Conclusion 1: Please provide the first monitoring research. Conclusion 2: **The issue is**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
group of "i" baseline devices.		monitoring survey was provided in supporting documents.	**closed** based on submitted to the determination group documents.
CL 06. The parameter title is not in line with methodology.	Table 2, checklist question D.2.4.5.	In PDD JI specific approach with elements of methodology AMS-II.J/Version 04 (sections B.1. and D.1.) is used.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CL 07. Please clarify the data unit "kg CO_2e/kWh.	Table 2, checklist question D.2.4.5.	Answer 1: Information was added. Answer 2: In section B.1. the reference to order of National Electricity Regulation Commission of Ukraine which designate classes consumers on the basis of voltage of grid. Also, It was indicated that unit "kg CO2/kWh" shows emission of GHG in CO_2 equivalent for production and transportation electricity for consumers.	Conclusion 1: See conclusion 1 of **CAR 20.** Conclusion 2: Corrections in PDD version 03 are sufficient. **The issue is closed.**
CL 08. Please clarify why this parameter is referred to the monitoring, if its value is given in Table E.3 for all years of the project.	Table 2, checklist question D.2.4.5.	The approach for this value was changed (section D.1.). During the monitoring, this value will be updated in accordance with orders of the State Environmental Investment Agency of Ukraine. For preliminary estimates, the value for 2011 is used.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CL 09. Please clarify the parameter QB,i indicated in section D.3. of the PDD.	Table 2, checklist question D.3.1.	Parameter is not used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CL 10. "At the beginning of each monitoring interval, project proponent will compile and update the record of	Table 2, checklist question D.4.1.	Statements were paraphrased. The information on utilization of CFLs was provided in section F.	**The issue is closed** based on appropriate corrections in PDD version 02.

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
number of failed CFLs collected from the facilities. The utilization of the failed CLFs would be carried out as per the national regulations and proper documentation shall be maintained to facilitate verification by the AIE". Please clarify the underlined.			
CL 11. Please provide the manual (booklet) to ensure proper implementation of the project.	Table 2, checklist question D.4.1.	Answer 1: Log book was provided in supporting documents. Answer 2: Photo logs pages with information about the project were provided in supporting documents.	Conclusion 1: Please provide a photo logs page with information about the project. Conclusion 2: **The issue is closed** based on submitted to the determination group documents.
CL 12. Please clarify why the electricity consumption by the project activity is calculated, not the electricity saved by the project activity (according to the methodology).	Table 2, checklist question E.1.1.	In PDD JI specific approach with elements of methodology AMS-II.J/Version 04 (sections B.1. and D.1.) is used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CL 13. Please justify the ex-ante value of parameter O_i indicated in table E.1.	Table 2, checklist question E.1.1.	Answer 1: The value was set according to first monitoring survey. Answer 2: Information on the first monitoring survey was provided in supporting documents.	Conclusion 1: Please provide the first monitoring research. Conclusion 2: **The issue is closed** based on submitted to the determination group documents.
CL 14. Please clarify why other formulae are used in spreadsheets for calculations and in a different order than described in the section E of the	Table 2, checklist question E.1.1.	Updated spreadsheets were provided in supporting documents.	Corrections in PDD version 02 are sufficient. **The issue is closed.**

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
PDD (it is difficult to follow the settlement procedures). There is no indication of parameters titles in spreadsheets according to formulae specified in the PDD.			
CL 15. Please clarify why the electricity consumption is calculated, not the electricity saved by the project activity according to the methodology used for this category of SSC project.	Table 2, checklist question E.4.1.	In PDD JI specific approach with elements of methodology AMS-II.J/Version 04 (sections B.1. and D.1.) is used.	**The issue is closed** based on appropriate corrections in PDD version 02.
CL 16. Please justify the value of parameter O_i indicated in table E.6.	Table 2, checklist question E.4.1.	Answer 1: The value was set according to first monitoring survey. Answer 2: Information on the first monitoring survey was provided in supporting documents.	Conclusion 1: Please provide the first monitoring research. Conclusion 2: **The issue is closed** based on submitted to the determination group documents.
CL 17. Please clarify how the efficient collection and disposal of failed CFLs will be provided.	Table 2, checklist question F.1.1.	Answer 1: The issue was clarified. Answer 2: In section F.1. was indicated order of transfer CFLs from facilities to Carbon Futures LLP(owner of CFLs) for proper utilization.	Conclusion 1: Please clarify how and who will implement the proper utilization of expired CFLs. Conclusion 2: **The issue is closed** based on appropriate corrections in PDD version 03.
CL 18. Please clarify if transboundary environmental impacts are considered in the project implementation.	Table 2, checklist question F.1.3.	In section F.1. was indicated that transboundary impacts are absent because the project aims to reduce electricity consumption and direct emissions of GHG are absent.	Corrections in PDD version 02 are sufficient. **The issue is closed.**
CL 19. Please clarify why data on the	Table 2, checklist	With aim of avoiding repetitions information	**The issue is closed** based on

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in tables 1, 2	Summary of project owner response	Determination team conclusion
baseline scenario is not provided.	question Annex 2.1.	on the baseline scenario was provided in sections B., D., and E. In annex 2 references for these sections were added.	appropriate corrections in PDD version 02.