TÜV SÜDDEUTSCHLAND

Determination Report

Ukrainian JI-Project “District Heating System Rehabilitation of Chernigiv Region”

Determination of the “District Heating System Rehabilitation of Chernigiv Region” JI-Project, Ukraine

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Summary:

The Certification Body "Climate and Energy" of TÜV Süddeutschland, Bau und Betrieb GmbH, has been ordered by Ukrainian Company JSC "Oblteplocomunenergo" in Chernigiv, Ukraine to determine the above mentioned project.

The determination of this project has been performed by document reviews, interviews by e-mail and on-site inspections, audits at the locations of the project and interviews at the offices of the client.

The need for corrective action request (CAR) and clarification requests (CR)/ additional information requests (AI) is described in the report and the attached validation protocol.

As the result of this procedure, it can be confirmed that the submitted project documentation is in line with all requirements set by the Marrakech Accords and the Kyoto Protocol, under the pre-condition that the CARs* (Corrective Action Requests) can be solved and additional information and clarification which is still required can be provided until the date of the first (initial) verification.

Additionally the assessment team reviewed the estimation of the projected emission reductions.

We can confirm that the indicated amount (reduction in the worst case) of 293.210 tons CO_2 (ERUs) during the intended crediting period from 2008 – 2012 represents a conservative estimation using the assumptions given by the project documents.

(*Annotation: Missing guidelines, institutions and a missing written letter of approval (at this stage) can not be influenced by the project partners and are not directly under the control of the project participants).

Work carried out by:	Thomas Kleiser (Project manager, GHG auditor) Friedrich Heeß (Technical Expert, GHG auditor - trainee)	Internal Quality Control by: Werner Betzenbichler

Abbreviations

AOE	Applicant Operational Entity
CAR	Corrective action request
CR	Clarification request
DP	Determination Protocol
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
ERU	Emission Reduction Unit
GHG	Greenhouse gas(es)
JI	Joint Implementation
KP	Kyoto Protocol
MP	Monitoring Plan
MS	Management System
PDD	Project Design Document
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

Table of Contents Page

1 INTRODUCTION

1.1 Objective

Ukrainian Company "JSC Oblteplocomunenergo" in Chernigiv, Ukraine has commissioned TÜV SÜDDEUTSCHLAND, Bau und Betrieb GmbH - Carbon Management Service - to make a determination of the "District Heating System Rehabilitation of Chernigiv Region" JI-Project with regard to the relevant requirements for JI project activities. The determination serves as a design verification and is a requirement for all JI projects submitted to the Dutch ERUPT 4 tender. The purpose of a determination is to have an independent third party assess 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 validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Determination 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 the Kyoto Protocol Article 6 criteria and the Guidelines for the implementation of Article 6 of the Kyoto Protocol as agreed in the Marrakech Accords.

1.2 Scope

The determination scope is defined as an independent and objective review of the project design document (PDD), 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. TÜV SÜDDEUTSCHLAND has, based on the recommendations in the Validation and Verification Manual employed a risk-based approach in the determination, focusing on the identification of significant risks for project implementation and the generation of ERUs.

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

1.3 GHG Project Description

The project foresees a couple of measures to improve the efficiency of the existing district heating system of Chernigiv Region.

These main measures are:

- boiler equipment replacement and rehabilitation; especially boilers in 134 small to medium boiler houses
- pipeline replacement
- rehabilitation of more than 150 km of double pre-insulated pipes from boiler houses to heat exchange stations and residential buildings

The project is submitted to the Dutch ERUPT 4 tender for evaluation.

The first measures to rehabilitate the district heating started in 1/2002, the last measures shall be completed in 12/2007.

The generated ERUs are supplied by JSC "Oblteplocomunenergo". The project documentation has been developed by JSC "Oblteplocomunenergo" together with the Institute of Engineering Ecology (IEE) in Kiev, Ukraine and the German company SVT in Bous.

2 METHODOLOGY

In order to ensure transparency, a determination protocol was customised for the project, according to the Validation and Verification Manual (VVM). The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The determination protocol serves the following purposes:

- It organises, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent determination process where TÜV SÜDDEUTSCHLAND has documented how a particular requirement has been validated and the result of the determination.

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

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

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**), or a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the determination report. **O** is used in case of an outstanding, currently not solvable issue, **AI** means Additional Information is required.*	*Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent determination process.*

Determination Protocol Table 2: Requirement 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 organised in six different 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** or **Additional Information** is used when the independent entity has identified a need for further clarification or more information.*

Determination Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action and additional Information requests	***Ref. to checklist question in table 2***	***Summary of project owner response***	***Determination conclusion***
If the conclusions from the draft determination are either a Corrective Action Request or a Clarification or Additional Information Request, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification or Additional Information Request is explained.*	*The responses given by the Client or other project participants during the communications with the independent entity should be summarised in this section.*	*This section should summarise the independent entity's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

Figure 1 Determination protocol tables

2.1 Review of Documents

The PDD submitted by JSC "Oblteplocomunenergo" and additional background documents related to the project design and baseline were reviewed.

2.2 Follow-up Interviews

In the period between April 13th, 2004 and April 15th, 2004 TÜV SÜDDEUTSCHLAND performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the Ukrainian company JSC "Oblteplocomunenergo" (supplier), employees in the district heating network (boiler houses), representatives of the local and regional administration and representatives of the Institute of Engineering Ecology (IEE) in Kiev, Ukraine and the German company SVT in Bous, Germany as project developers have been interviewed.

The main topics of the interviews are summarised in Table 1. The complete and detailed list of all persons interviewed is enclosed in Appendix B to this report.

Table 1: Interview topics

Interviewed organisation	Interview topics
JSC "Oblteplocomunenergo"	Project design, baseline, monitoring plan, environmental impacts, stakeholder comments, additionality, monitoring procedures, calibration of the measurement equipment, documentation, archiving of data
Engineering Ecology (IEE) and SVT	Project design, baseline, monitoring plan, environmental impacts, stakeholder comments, additionality
Local and regional administration	Approval of the project, project design, environmental impacts, stakeholder comments, national and sectoral policy; approval procedure

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for TÜV SÜDDEUTSCHLAND's positive conclusion on the project design. Clarification Requests raised by TÜV SÜDDEUTSCHLAND could so far not resolved totally, but are planned for being resolved until the date of the initial verification at the latest. To guarantee the transparency of the determination process, the concerns raised are and the responses given is summarised in chapter 3 below. The whole process is documented in more detail in the final determination protocol in Appendix A.

3 DETERMINATION FINDINGS

In the following sections the findings of the final determination are stated. The determination findings for each determination subject are presented as follows:

1) The findings from the desk review of the original project design documents and the findings from interviews during the follow up visit are summarised. A more detailed record of these findings can be found in the Determination Protocol in Appendix A.

2) Where TÜV SÜDDEUTSCHLAND had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, have been issued. The Clarification, Corrective Action Requests and Additional Information Requests are stated, where applicable, in the following sections and are further documented in the Final Determination Protocol in Appendix A.

3) Where Clarification Requests and Additional Information Requests have been issued, the exchanges between Ukrainian Company JSC "Oblteplocomunenergo" to resolve these Clarification and Additional Information Requests are summarized in the final determination report.

4) The draft conclusions of the determination are presented consecutively.

The final determination findings relate to the project design as documented and described in the originally and revised project design documentation.

One corrective action has been requested, which influences the fulfilment of four mandatory requirements for Joint Implementation (JI) project activities.

The Corrective Action Request (CAR*) refers to questions which depend on decisions of the national and international climate protection policy and cannot be solved currently.

*Annotation:
Missing guidelines, institutions and a missing written letter of approval (at this stage) are not directly under the control of the project participants. By the time the corresponding documents are submitted / institutions are in place and regulations have become effective, the project does fulfil all these requirements.

3.1 Project Design

3.1.1 Findings

The employed technology does reflect current good practice in the host country and hence the project uses state of the art technology. It is, moreover, not likely that the project technology will be substituted by a more efficient technology. The rehabilitation and replacement of the boiler equipment, the replacement of pipelines and the rehabilitation of double pre-insulated pipes are standard procedures and the staff has the experience in operating such a system.

Ukraine has not appointed a national focal point to UNFCCC so far, also the date of ratification of the Kyoto Protocol was April 12th 2004. A national focal point will be appointed soon.

So the project is approved verbally by the responsible national Ukrainian government representatives, namely the Ministry of Environmental Protection of Ukraine and State Committee of Ukraine for Housing and Municipal Economy, and by the responsible

regional/local authorities, namely Chernigiv State administration. But no formal, written letters of approval are available up to now.

The approval of the Dutch government is not existent in writing, but the set up of the ERUPT 4 tender can be seen as an indication of such an approval.

The project starting date is clearly defined.

The crediting period is defined as being from 2008 – 2012 in accordance with the first commitment period defined in the Kyoto Protocol.

The operational lifetime of the project was not clearly displayed, but explained plausibly in complementary e-mails.

JSC "Obleteplocomunenergo" is cooperating with 6 smaller suppliers in the project.

Written statements/contracts regarding the cooperation between JSC "Obleteplocomunenergo" and 6 smaller suppliers are not available so far.

3.1.2 Issued CRs/AIs

Corrective Action Request No. 1 (CAR#1):

The national focal point of the Ukraine has to be contacted as soon as such an institution is appointed by the Ukrainian Government and the specific national guidelines and procedures (G&P) for JI projects in the Ukraine have to be incorporated after commitment by the Ukrainian Government.

A formal, written letter of Approval of the Ukraine and of the responsible regional/local authorities of the Chernigiv region should be provided until the date of the first (initial) verification.

Additional information Request:

Written statements/contracts regarding the cooperation between JSC "Obleteplocomunenergo" and 6 smaller suppliers must be provided for the first (initial) verification at the latest.

3.1.3 Conclusion

The project fulfils the prescribed requirements completely, under the pre-condition that the required Corrective Action and additional information will be provided until the date of the first (initial) verification.

3.2 Baseline

The baseline of the Ukrainian JI-project "District Heating System Rehabilitation of Chernigiv Region" is established in a project specific manner and is based on the assumption that the current operation of the Chernigiv district heating system will be carried on unmodified.

This is a plausible assumption: The lifetime of the existing equipment would allow to continue the current operation without any changes.

Several parameters for the adjustment of the baseline (dynamic baseline) if necessary are identified and will be monitored.

The on-site inspection has pointed out that there are no evident, economical or technical inducements to invest in a new equipment. There are also several financial hurdles to do this.

So the (implementation of the) envisaged project is additional at any rate.

3.2.1 Findings

The discussion and selection of the baseline methodology is transparent as all data used are specified and documented. Also the discussion and determination of the chosen baseline is transparent. Different approaches have been presented and plausible reasons for the approach chosen have been given.

The baseline is established in a project specific manner and refers to the specific fuel consumption and efficiency within the (already existing) district heating system of Chernigiv region. The baseline does take into account the major national and/or sectoral policies, macro-economic trends and political developments. Relevant key factors are described and their impact on the baseline and the project risk is evaluated.

Generally the baseline determination is compatible with available data.

But the adjustment of the (dynamic) baseline with monitored data is not elaborated concluding.

3.2.2 Issued CRs/AIs

Additional information requested:

The adjustment of the (dynamic) baseline with monitored data must be elaborated more detailed (with concrete formulas and calculations, measurement methodology for relevant parameters etc.) until the date of the first verification.

3.2.3 Conclusion

The project fulfils all the prescribed requirements completely, under the pre-condition that the required additional information will be provided until the date of the first (initial) verification.

3.3 Monitoring Plan

3.3.1 Findings

The monitoring methodology does reflect current good practice and is supported by the monitored and recorded data. The monitoring provisions are in line with the project boundaries.

Various parameters outside the project boundaries are included in the monitoring plan to assess the plausibility of the results.

The monitoring methodology is clear and user friendly

The monitoring provisions are in line with the project boundaries.

The choice of the indicators is reasonable and all indicated GHG parameters can be monitored and/or measured. No indicators have been defined and no leakage emissions are monitored according to the monitoring plan as there are no emissions to be expected.

A monitoring of the (progression of the) baseline emissions is required. The adjustment of the baseline emissions ("dynamic baseline") via monitored data is possible, foreseen and demonstrated/explained re-traceabely and plausibly in the PDD, in annex 7 and several substantiating e-mails, the approaches are chosen correctly and transparently, but the adjustment must be elaborated more detailed until the date of the initial (first) verification.

The requirement of a more detailed elaboration refers to the measurement (methodology) of the parameters necessary for the adjustment, the detailed workout of the formula and the responsibilities/frequencies of data collection for the adjustment.

The existing project documents and the complementary correspondence with the project owner and the project developer could demonstrate plausibly that it should cause no problems to realise the detailed elaboration of the adjustment until the date of the first (initial) verification.

Negative environmental impacts requiring a monitoring provision are not expected.

The responsibility between the different project participants could be identified during the audit on site, but should be documented more detailed in the monitoring plan until the date of the first verification.

Procedures for calibration of monitoring equipment are identified and procedures for the maintenance of monitoring equipment and installations could be observed on site.

Possible uncertainties are known, but respective procedures for dealing with these uncertainties should be worked out more detailed and transparently until the date of the first verification.

3.3.2 Issued CRs/AIs

The division of responsibilities (for monitoring, data collection, documentation and archiving of data) between the different project participants must be documented more detailed until the date of the first verification.

Procedures for mitigating possible monitoring errors and/or uncertainties must be elaborated more clearly until the date of the first verification.

It should be elaborated more detailed in the monitoring plan until the date of the first verification how the data used to adjust the baseline are collected and who is responsible for the collection and adjustment.

The modalities of the monitoring plan should be elaborated more detailed until the date of the first verification.

The procedures for the monitoring, measurements and reporting should be elaborated more detailed until the date of the first verification, especially the procedures for day-to-day records.

3.3.3 Conclusion

The project fulfils all the prescribed requirements completely, under the pre-condition that the required additional information will be provided until the date of the first (initial) verification.

The discussion and correspondence with the project developer have demonstrated definitely that all the required additional information and elaborations can be provided until the date of the first (initial) verification at the latest.

3.4 Calculation of GHG Emissions

3.4.1 Findings

The project's spatial boundaries are clearly described.

The flowchart presented in the PDD shows a comprehensible description of the project's system.

Regarding emission sources all aspects are covered. Only CO_2 emissions have correctly been identified as relevant for the project.

The PDD gives a complete and transparent calculation of the project GHG emissions and mainly conservative assumptions have been used to calculate project GHG emissions.

Leakage calculations are not requested

Thus, under the assumption that the project scenario is not identical to the baseline scenario, the project will result in fewer GHG emissions than the baseline scenario.

3.4.2 Issued CRs/AIs

Additional Information required:

The emission factor for fuel oil and gas should be verified with documents until the date of the first verification.

3.4.3 Conclusion

The project fulfils all the prescribed requirements completely.

3.5 Environmental Impacts

3.5.1 Findings

The description of the environmental impacts is basically sufficient.

As a result of the on-site audits, it is evident that there are no national requirements for an EIA in the host country for such projects.

The project will not create any adverse environmental effects.

Trans-boundary environmental impacts are not considered in the analysis. These impacts can be estimated as insignificant.

The project does comply with the environmental legislation in the Ukraine.

3.5.2 Issued CRs/AIs

Short EIAs for boiler reconstruction (according to the Ukrainian legislation) should be provided for the verifier.

3.5.3 Conclusion

The project fulfils all the prescribed requirements completely.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜDDEUTSCHLAND published the project design documents on the SENTER and TÜV SÜDDEUTSCHLAND website for 30 days from April 21th until May 21th, 2004.

No comments have been received.

5 DETERMINATION OPINION

TÜV SÜDDEUTSCHLAND has performed a determination of the Ukrainian JI-Project "District Heating System Rehabilitation of Chernigiv Region" in the Ukraine.

The determination was performed on the basis of UNFCCC criteria as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜDDEUTSCHLAND with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for JI, under the pre-condition, that all the required additional information and clarifications will be provided until the date of the first (initial) verification.

There is one constraint:

A corrective action (CAR) has been requested, which influences the fulfilment of four mandatory requirements for Joint Implementation (JI) project activities. The Corrective Action Request refers to questions which depend on decisions of the national and international climate protection policy and cannot be solved currently. Missing guidelines, institutions and a missing written letter of approval (at this stage) are not directly under the control of the project participants and should not effectuate an adverse evaluation. By the time the corresponding documents are submitted / institutions are in place and regulations have become effective, the project does fulfil all these requirements.

By installing new equipment operating more efficient, the project results in reductions of CO_2 emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

The determination is based on the information made available to us and the engagement conditions detailed in this report. TÜV SÜDDEUTSCHLAND can not guarantee the accuracy or correctness of this information. Hence, TÜV SÜDDEUTSCHLAND can not be held liable by any party for decisions made or not made based on the determination opinion."

Munich, 2004-05-25

Werner Betzenbichler

Head of certification body "climate and energy"

Munich, 2004-05-25

Thomas Kleiser

Project Manager

TÜV SÜDDEUTSCHLAND

Annex 1

Validation Protocol

Table 1 Mandatory Requirements for Joint Implementation (JI) Project Activities

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
1. The project shall have the approval of the Parties involved	Kyoto Protocol Article 6.1 (a)	**CAR#1 (O)**	The project was presented to the responsible national authorities and is verbally approved by the responsible national Ukrainian gover-nment representatives, namely the Ministry of Environmental Protection of Ukraine and State Committee of Ukraine for Housing and Municipal Economy, and by the responsible regional/local authorities, namely Chernigiv State administration. A formal Letter of Approval of the Ukraine has not been signed and submitted as yet (annotation: Ukraine has not indicated a national focal point). The process for signing this letter has already been started. The written letters of approval by the involved Ukrainian bodies should be added to

* þ: Compliant; CAR: Corrective Action Request; CR: Clarification Request; AI: Additional Information required; O: Outstanding Issue (due to missing institutions and guidelines)

** MoV = Means of Verification, DR= Document Review, I= Interview

REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
			the PDD as soon as possible! It should be provided (to the verifier) at the date of the first (initial) verification at the latest. Remark: This open issue is out of the influence of the project partners. The approval of the Dutch government is not existent in writing, but the set up of the ERUPT 4 tender can be seen as an indication of such an approval.
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)	þ	Table 2, Section B.2
3. The sponsor Party shall not aquire emission reduction units if it is not in compliance with its obligations under Articles 5 & 7	Kyoto Protocol Article 6.1 (c)	þ	The Netherlands have submitted their third national communication in 2001.
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)	þ	This issue can not be answered by now as such as the JI system is not installed yet and the Kyoto Protocol has not entered into force.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
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	**CAR#1** **(O)**	The Netherlands have designated a national focal point. On the other hand the Ukraine has not appointed a national focal point to UNFCCC so far, also the date of ratification of the Kyoto Protocol was April 12th 2004. A national focal point will be appointed soon. Remark: National political trends are out of the influence of the project partners. Currently the Ministry of the Environmental Protection of Ukraine is responsible for the permission process of KI projects in the Ukraine. Specific national guidelines and procedures (G&P) are currently available for the Dutch ERUPT tender but not for JI projects in the Ukraine.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
6. The host Party shall be a Party to the Kyoto Protocol	Marrakech Accords, JI Modalities, §21(a)/24	þ	The Ukraine is a Party (Annex I Party) to the Kyoto Protocol and has ratified the Kyoto Protocol at April 12th 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	**CAR#1 (O)**	This issue can not be answered by now as such as the JI system is not installed yet and the Kyoto Protocol has not entered into force.
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	**CAR#1 (O)**	This issue can not be answered by now as such as the JI system is not installed yet and the Kyoto Protocol has not entered into force.
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	þ	A PDD has been submitted in April 2004, a revised PDD in May 2004.
10. The project desing 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	þ	The PDD has been published on the SENTER and the TÜV SÜD website for 30 days and Parties, stakeholders and

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
			UNFCCC accredited observers have been invited to provide comments. Currently there is no possibility to make the PDD public available through the secretariat, as such procedures are not available for JI projects yet. The chosen approach can be considered as sufficient substitution at this point in time. No comments have been received.
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)	þ	Table 2, Section F The aspects of trans-boundary impacts were plausibly discussed. No trans-boundary aspects are to be expected.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
12. The baseline for a JI project shall be the scenario that reasonably represents the GHG emissions or removal by sources that would occur in absence of the proposed project	Marrakech Accords, JI Modalities, Appendix B	þ	Table 2, Section B.2 The choice of the baseline is argued plausibly and transparently in the PDD.
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	þ	Table 2, Section B.2 The influence of national and/or sectoral policies and circumstances is elaborated sufficiently and transparently.
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	þ	Table 2, Section B.2 It is excluded to earn ERUs for decreases in activity levels outside the project activity or due to force majeure. The project provides correction factors (dynamic baseline) in this case.

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REQUIREMENT	REFERENCE	CONCLUSION	Cross Reference / Comment
15. The project shall have an appropriate monitoring plan	Marrakech Accords, JI Modalities, §33(c)	þ	Table 2, Section D Additional information has to be submitted regarding the indicated AI (additional information request).

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Table 2 Requirements Checklist

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A. General Description of Project Activity The project design is assessed.					
A.1. Project Boundaries Project boundaries are the limits and borders defining the GHG emission reduction project.					
A.1.1. Are the project's spatial (geographical) boundaries clearly defined?	1, 2, 4, 5, 16	DR, I	The project's spatial boundaries are clearly, re-traceably and plausibly described in the PDD and visualised in a Flowchart, but should be verbalised more detailed.	**AI**	þ
A.1.2. Are the project's system (components and facilities used to mitigate GHGs) boundaries clearly defined?	1, 2, 4, 5, 6, 7, 16	DR, I	Yes, see above. As not the whole heat network belongs to JSC "Oblteplocomunenergo" (annotation: there are 6 further small suppliers), written statements/contracts regarding the cooperation should be added to the PDD , alternatively provided for the first (initial) verification at the latest.	**AI**	**AI**

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
A.2. Technology to be employed Validation of project technology focuses on the project engineering, choice of technology and competence/ maintenance needs. The validator should ensure that environmentally safe and sound technology and know-how is used.					
A.2.1. Does the project design engineering reflect current good practices?	1, 2, 4, 5	DR, I	Yes, the employed technology does reflect current good practice in the host country.	þ	þ
A.2.2. Does the 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?	1, 2, 3, 4, 5	DR, I	The project uses state of the art technology.	þ	þ
A.2.3. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 2, 3, 4, 5	DR, I	It is not likely that the project technology will be substituted by a more efficient technology.	þ	þ
A.2.4. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1, 2, 3, 4, 5	DR, I	No. The stuff has the experience in operating such a system.	þ	þ
A.2.5. Does the project make provisions for meeting training and maintenance needs?	1, 2, 3, 4, 5	DR, I	This is not necessary, see above.	þ	þ

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
B. Project Baseline The validation of the project baseline establishes whether the selected baseline methodology is appropriate and whether the selected baseline represents a likely baseline scenario.					
B.1. Baseline Methodology It is assessed whether the project applies an appropriate baseline methodology.					
B.1.1. Is the discussion and selection of the baseline methodology transparent?	1, 2, 3, 4, 5, 16	DR, I	Yes, the discussion and selection of the baseline methodology is transparent, re-traceable and plausible, but should be elaborated more detailed.	**AI**	þ
B.1.2. Does the baseline methodology specify data sources and assumptions?	1, 2, 3, 4, 5	DR, I	Yes, all data used is specified and documented.	þ	þ
B.1.3. Does the baseline methodology sufficiently describe the underlying rationale for the algorithm/formulae used to determine baseline emissions (e.g. marginal vs. average, etc.)	1, 2, 3, 4, 5	DR, I	Yes.	þ	þ
B.1.4. Does the baseline methodology specify types of variables used (e.g. fuels used, fuel consumption rates, etc)?	1, 2, 4, 5	DR, I	Yes.	þ	þ
B.1.5. Does the baseline methodology specify the spatial level of data (local, regional, national)?	1, 2, 4, 5	DR, I	Yes.	þ	þ

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B.2. Baseline Determination The choice of baseline will be validated with focus on whether the baseline is a likely scenario, whether the project itself is not a likely baseline scenario, and whether the baseline is complete and transparent.					
B.2.1. Is the application of the methodology and the discussion and determination of the chosen baseline transparent?	1, 2, 4, 5, 16	DR, I	Yes, the application of the methodology and the discussion and determination of the chosen baseline is plausible, but should be elaborated more detailed.	**AI**	þ
B.2.2. Has the baseline been determined using conservative assumptions where possible?	1, 2, 4, 5	DR, I	Yes. The relevant parameters, which influence the baseline, are pointed out and the baseline will be adjusted in case of changes in these parameters.	þ	þ
B.2.3. Has the baseline been established on a project-specific basis?	1, 2, 4, 5	DR, I	Yes the baseline is established in a project specific manner. The baseline refers to the specific fuel consumption and efficiency in the district heating system of Chernigiv Region.	þ	þ
B.2.4. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies, macro-economic trends and political aspirations?	1, 2, 4, 5, 8	DR, I	Yes, the baseline does take into account the major national and/or sectoral policies, macro-economic trends and political developments. Relevant key factors are	þ	þ

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			described and their impact on the baseline and the project risk is evaluated.		
B.2.5. Is the baseline determination compatible with the available data?	1, 2, 4, 5	DR, I	Yes, the baseline determination is compatible with available data.	þ	þ
B.2.6. Does the selected baseline represent a likely scenario in the absence of the project?	1, 2, 4, 5	DR, I	Yes, the project does represent a likely scenario in the non project case.	þ	þ
B.2.7. Is it demonstrated that the project activity itself is not a likely baseline scenario (e.g. through (a) a flow-chart or series of questions that lead to a narrowing of potential baseline options, (b) a qualitative or quantitative assessment of different potential options and an indication of why the non-project option is more likely, (c) a qualitative or quantitative assessment of one or more barriers facing the proposed project activity or (d) an indication that the project type is not common practice in the proposed area of implementation, and not required by a Party's legislation/regulations)?	1, 2, 4, 5	DR, I	Yes.	þ	þ
B.2.8. Have the major risks to the baseline been identified?	1, 2, 4, 5	DR, I	Yes, the major risks have been determined.	þ	þ
B.2.9. Is all literature and sources clearly referenced?	1, 2, 4, 5	DR, I	Yes.	þ	þ

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C. Duration of the Project/ Crediting Period It is assessed whether the temporary boundaries of the project are clearly defined.					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	1, 2, 4, 5, 16	DR, I	Yes, the project starting date is clearly defined. **Clarification Request No. 1:** The operational lifetime of the project is not displayed clearly in the PDD. This should be corrected. --- According to given additional information by e-mail the operational lifetime is much more than 10 years. This is plausible. But the operational lifetime in not concretised in detail in the PDD.	**CR 1**	þ
C.1.2. Is the project's crediting time clearly defined?	1, 2, 4, 5	DR, I	Yes the crediting period is defined as being from 2008 – 2012 in accordance with the first commitment period defined in the Kyoto Protocol.	þ	þ

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D. Monitoring Plan The monitoring plan review aims to establish whether all relevant project aspects deemed necessary to monitor and report reliable emission reductions are properly addressed.					
D.1. Monitoring Methodology It is assessed whether the project applies an appropriate baseline methodology.					
D.1.1. Does the monitoring methodology reflect good monitoring and reporting practices?	1, 2, 4, 5, 15	DR, I	Yes, the monitoring methodology does reflect current good practice.	þ	þ
D.1.2. Is the selected monitoring methodology supported by the monitored and recorded data?	1, 2, 4, 5, 15, 16	DR, I	Yes the monitoring methodology is supported by the monitored and recorded data.	þ	þ
D.1.3. Are the monitoring provisions in the monitoring methodology consistent with the project boundaries in the baseline study?	1, 2, 4, 5	DR, I	Yes, basically the monitoring provisions are in line with the project boundaries.	þ	þ
D.1.4. Have any needs for monitoring outside the project boundaries been evaluated and if so, included as applicable?	1, 2, 4, 5	DR, I	Yes, various parameters outside the project boundaries are included in the monitoring plan to assess the plausibility of the results.	þ	þ
D.1.5. Does the monitoring methodology allow for conservative, transparent, accurate and complete calculation of the ex post GHG emissions?	1, 2, 4, 5	DR, I	Yes.	þ	þ

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D.1.6. Is the monitoring methodology clear and user friendly?	1, 2, 4, 5	DR, I	Yes, the monitoring methodology is clear and user friendly	þ	þ
D.1.7. Does the methodology mitigate possible monitoring errors or uncertainties addressed?	1, 2, 3, 4, 5, 15, 16	DR, I	Yes, in annex 7, but not in detail. Procedures for mitigating possible monitoring errors and/or uncertainties addressed should be described more clearly until the date of the first (initial) verification).	**AI**	**AI**
D.2. Monitoring of Project Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.2.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the greenhouse gas emissions within the project boundary during the crediting period?	1, 2, 4, 5	DR, I	Yes.	þ	þ
D.2.2. Are the choices of project GHG indicators reasonable?	1, 2, 4, 5	DR, I	Yes, generally the choice of the indicators is reasonable.	þ	þ
D.2.3. Will it be possible to monitor / measure the specified project GHG indicators?	1, 2, 4, 5	DR, I	Yes, all indicated GHG parameters can be monitored and/or measured.	þ	þ
D.2.4. Will the indicators enable comparison of project data and performance over time?	1, 2, 4, 5	DR, I	Yes.	þ	þ

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D.3. Monitoring of Leakage It is assessed whether the monitoring plan provides for reliable and complete leakage data over time.					
D.3.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	1, 2, 4, 5	DR, I	No indicators have been defined and no leakage emissions are monitored according to the monitoring plan as there are no relevant emissions to be expected.	þ	þ
D.3.2. Have relevant indicators for GHG leakage been included?	1, 2, 4, 5	DR, I	See comment above.	þ	þ
D.3.3. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining leakage?	1, 2, 4, 5	DR, I	See comment above.	þ	þ
D.3.4. Will it be possible to monitor the specified GHG leakage indicators?	1, 2, 4, 5	DR, I	See comment above.	þ	þ
D.4. Monitoring of Baseline Emissions It is established whether the monitoring plan provides for reliable and complete project emission data over time.					
D.4.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for determining the baseline emissions during the crediting period?	1, 2, 4, 5, 15, 16	DR, I	The monitoring plan allows for sampling data to adjust the chosen baseline. Sampled data relevant for the adjustment of the baseline must be specified more clearly.	**AI**	þ

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D.4.2. Is the choice of baseline indicators, in particular for baseline emissions, reasonable?	1, 2, 4, 5, 15, 16	DR, I	See comment above	þ	þ
D.4.3. Will it be possible to monitor the specified baseline indicators?	1, 2, 4, 5	DR, I	See comment above	þ	þ
D.5. Monitoring of Environmental Impacts It is checked that choices of indicators are reasonable and complete to monitor sustainable performance over time.					
D.5.1. Does the monitoring plan provide for the collection and archiving of relevant data on environmental impacts?	1, 2, 4, 5	DR, I	No negative environmental impacts are expected.	þ	þ
D.5.2. Will it be possible to monitor the specified environmental impact indicators?	1, 2, 4, 5	DR, I	See comment above	þ	þ
D.6. Project Management Planning It is checked that project implementation is properly prepared for and that critical arrangements are addressed.					
D.6.1. Is the authority and responsibility of project management clearly described?	1, 2, 4, 5, 16	DR, I	The PDD does not describe definitely the division of responsibility between the different project participants. The respective roles could be identified during the audit on	**CR 2**	þ

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			site. **Clarification Request No. 2** The roles of the project participants in the project planning and implementation should be elaborated.		
D.6.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	1, 2, 4, 5	DR, I	See comment above. **Clarification Request No. 2:** The roles of the project participants in the project planning and implementation should be elaborated more clearly.	**CR 2**	þ
D.6.3. Are procedures identified for training of monitoring personnel?	1, 2, 3, 4, 5, 16	DR, I	A specific training of monitoring personnel is not necessary. But the responsibilities and modalities of the monitoring should be described more detailed. The procedures planned for the monitoring should be briefly explained in the PDD and supported by underlying documentation, until the date of the first verification at the latest.	**AI**	þ
D.6.4. Are procedures identified for emergency preparedness where emergencies can result in unintended emissions?	1, 2, 4, 5, 15, 16	DR, I	This is not necessary in case of "District Heating System Rehabilitation of Chrenigiv Region" JI-project. But it should be discussed and elaborated	**AI**	þ

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			what will happen in case of blackouts in the district heating system.		
D.6.5. Are procedures identified for calibration of monitoring equipment?	1, 2, 3, 4, 5	DR, I	Yes, respective procedures are identified These procedures should be described more detailed in the PDD.	**AI**	þ
D.6.6. Are procedures identified for maintenance of monitoring equipment and installations?	1, 2, 3, 4, 5, 15, 16	DR, I	Yes, procedures for the maintenance of monitoring equipment and installations could be observed on site, but are not described in the PDD. **Clarification Request No. 3:** The PDD should reflect the real situation.	**CR 3**	þ
D.6.7. Are procedures identified for monitoring, measurements and reporting?	1, 2, 3, 4, 5	DR, I	Yes, respective procedures are identified, but these procedures should be elaborated more detailed in the final PDD.	**AI**	þ
D.6.8. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)?	1, 2, 3, 4, 5	DR, I	Yes, respective procedures are identified (see annex 7). But these procedures should be elaborated more detailed and concretised in a separate monitoring plan, may be in the form of worksheets, until the date of the initial verification.	**AI**	**AI**
D.6.9. Are procedures identified for dealing with	1, 2,	DR,	Yes, possible uncertainties are known, but	**AI**	**AI**

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possible monitoring data adjustments and uncertainties?	3, 4, 5	I	respective procedures for dealing with these uncertainties should be described more detailed in a revised monitoring plan, until the date of the initial verification at the latest.		
D.6.10. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	1, 2, 4, 8, 9	DR, I	No **Clarification Request No. 4:** Corresponding information should be submitted.	**CR 4**	þ
D.6.11. Are procedures identified for project performance reviews?	1, 2, 3, 4, 5	DR, I	No **Clarification Request No. 5:** Corresponding information should be submitted.	**CR 5**	þ
D.6.12. Are procedures identified for corrective actions?	1, 2, 3, 4, 5	DR, I	No **Clarification Request No. 6:** Corresponding information should be submitted.	**CR 6**	þ

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E. Calculation of GHG Emissions by Source It is assessed whether all material GHG emission sources are addressed and how sensitivities and data uncertainties have been addressed to arrive at conservative estimates of projected emission reductions.					
E.1. Predicted Project GHG Emissions The validation of predicted project GHG emissions focuses on transparency and completeness of calculations.					
E.1.1. Are all aspects related to direct and indirect GHG emissions captured in the project design?	1, 2, 3, 4, 5	DR, I	Yes, all aspects are covered. Only CO_2 emissions have correctly been identified as relevant for the project.	þ	þ
E.1.2. Are the GHG calculations documented in a complete and transparent manner?	1, 2, 3, 4, 5	DR, I	Yes, the PDD gives a complete and transparent calculation of the project GHG emissions.	þ	þ
E.1.3. Have conservative assumptions been used to calculate project GHG emissions?	1, 2, 3, 4, 5	DR, I	Yes, conservative and plausible assumptions have been used to calculate project GHG emissions.	þ	þ
E.1.4. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	1, 2, 3, 4, 5	DR, I	Yes.	þ	þ
E.1.5. Have all relevant greenhouse gases and source categories listed in Kyoto Protocol Annex A	1, 2, 4, 5	DR, I	Yes, direct on site emissions from fuel combustion are covered as being within the	þ	þ

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been evaluated?			project boundary. Energy/ Fuel combustion/ Energy industries is the relevant sectors/source category.		
E.2. Leakage Effect Emissions It is assessed whether there leakage effects, i.e. change of emissions which occurs outside the project boundary and which are measurable and attributable to the project, have been properly assessed.					
E.2.1. Are potential leakage effects beyond the chosen project boundaries properly identified?	1, 2, 4, 5	DR, I	Leakage calculations are not requested	þ	þ
E.2.2. Have these leakage effects been properly accounted for in calculations?	1, 2, 4, 5	DR, I	See comment above	þ	þ
E.2.3. Does the methodology for calculating leakage comply with existing good practice?	1, 2, 4, 5	DR, I	See comment above	þ	þ
E.2.4. Are the calculations documented in a complete and transparent manner?	1, 2, 4, 5	DR, I	See comment above	þ	þ
E.2.5. Have conservative assumptions been used when calculating leakage?	1, 2, 4, 5	DR, I	See comment above	þ	þ
E.2.6. Are uncertainties in the leakage estimates properly addressed?	1, 2, 4, 5	DR, I	See comment above	þ	þ

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl.	Final Concl.
E.3. Baseline Emissions The validation of predicted baseline GHG emissions focuses on transparency and completeness of calculations.					
E.3.1. Have the most relevant and likely operational characteristics and baseline indicators been chosen as reference for baseline emissions?	1, 2, 4, 5	DR, I	Yes.	þ	þ
E.3.2. Are the baseline boundaries clearly defined and do they sufficiently cover sources and sinks for baseline emissions?	1, 2, 4, 5	DR, I	Yes.	þ	þ
E.3.3. Are the GHG calculations documented in a complete and transparent manner?	1, 2, 4, 5	DR, I	Yes.	þ	þ
E.3.4. Have conservative assumptions been used when calculating baseline emissions?	1, 2, 4, 5	DR, I	Yes, conservative assumptions have been used.	þ	þ
E.3.5. Are uncertainties in the GHG emission estimates properly addressed in the documentation?	1, 2, 4, 5	DR, I	Yes.	þ	þ
E.3.6. Have the project baseline(s) and the project emissions been determined using the same appropriate methodology and conservative assumptions?	1, 2, 4, 5	DR, I	Yes.	þ	þ

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E.4. Emission Reductions Validation of baseline GHG emissions will focus on methodology transparency and completeness in emission estimations.					
E.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1, 2, 4, 5	DR, I	Yes, under the assumption that the project scenario is not identical to the baseline scenario, the project will result in fewer GHG emissions than the baseline scenario. See B. 2.7	þ	þ
F. Environmental Impacts Documentation on the analysis of the environmental impacts will be assessed, and if deemed significant, an EIA should be provided to the validator.					
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	1, 2, 4, 5	DR, I	Yes, the description of the environmental impacts is basically sufficient, but should be described more detailed. Short EIAs for boiler reconstruction (according to the Ukrainian legislation) should be provided for the verification.	**AI**	þ
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	1, 2, 4, 5	DR, I	No, as a result of the on-site audits, it is evident that there are no specific national requirements for an EIA in the host country for such projects.	**AI**	þ

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			But this aspect should be discussed and described in the final PDD.		
F.1.3. Will the project create any adverse environmental effects?	1, 2, 4, 5	DR, I	No, the project will not create any adverse environmental effects.	þ	þ
F.1.4. Are transboundary environmental impacts considered in the analysis?	1, 2, 4, 5	DR, I	Trans-boundary environmental impacts are seen as being insignificant.	þ	þ
F.1.5. Have identified environmental impacts been addressed in the project design?	1, 2, 4, 5	DR, I	Yes. See comment F.1.1	þ	þ
F.1.6. Does the project comply with environmental legislation in the host country?	1, 2, 4, 5	DR, I	Yes the project does comply with the environmental legislation in the Ukraine.	þ	þ

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Table 3 Resolution of Corrective Action and Clarification/Additional Information Requests (to be completed in the Final Determination Protocol)

Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Determination conclusion
CAR 1.	Table 1 / 1/ 5/ 7/ 8	Necessary information will be provided as soon as possible, until the date of the first (initial) verification at the latest. National political processes and decisions can not be influenced by the project partners.	These open issues must be checked by the verifier in the phase of the first verification. Missing guidelines, institutions and a missing written letter of approval (at this stage) can not be influenced by the project partners and are not directly under the control of the project participants. By the time the corresponding documents are submitted / institutions are in place and regulations have become effective, the project does fulfil all these require-ments.
Additional Information required/ Clarification request	Table 1, 1	This information will be provided as soon as possible, until the date of the first (initial) verification at the latest.	This open issue must be checked in the phase of the first verification.

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Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Determination conclusion
Additional Information required/ Clarification request	A 1.1	The project's spatial boundaries will be verbalised more detailed.	The open issue was clarified in explaining e-mails.
Additional Information required/ Clarification request	A 1.2	Written statements/contracts regarding the cooperation between JSC "Obleteplocomunenergo" and 6 smaller suppliers will be provided for the first (initial) verification at the latest.	This must be checked in the phase of verification.
Additional Information required/ Clarification request	B 1.1	Discussion and selection of the baseline will be elaborated more detailed.	þ The open issue was clarified in explaining e-mails.
Additional Information required/ Clarification request	B 1.2	The application of the methodology will be elaborated more detailed.	þ The open issue was clarified in explaining e-mails.
Additional Information required/ Clarification request	C 1.1	The operational lifetime of the project is not displayed clearly in the PDD. This swill be corrected.	þ The open issue was clarified in explaining e-mails.
Additional Information required/ Clarification request	D 1.7	Procedures for mitigating possible monitoring errors and/or uncertainties	This open issued must be checked in the phase of the first verification.

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Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Determination conclusion
		addressed will be described more clearly until the date of the first (initial) verification).	
Additional Information required/ Clarification request	D 4.1	Sampled data relevant for the adjustment of the baseline will be specified more clearly.	þ The open issue was clarified in explaining e-mails, but should be assessed in the framework of the first (initial) verification.
Additional Information required/ Clarification request	D 6.1; D 6.2;	The roles of the project participants in the project planning and implementation will be elaborated more clearly.	þ The open issue was clarified in explaining e-mails.
Additional Information required/ Clarification request	D 6.3; D 6.4; D 6.5; D 6.7; D 6.8; D 6.9	The procedures planned for the monitoring will be briefly explained in the revised PDD and supported by underlying documentation, until the date of the first verification at the latest.	These open issues must be checked in the phase of the first verification.
Additional Information required/ Clarification request	D 6.6	Procedures for the maintenance of monitoring equipment and installations will be described in the revised PDD.	þ The open issue was clarified in explaining e-mails. But this aspect should be assessed during the first verification.

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Draft report clarifications and corrective action requests	Ref. to checklist question in table 2	Summary of project owner response	Determination conclusion
Additional Information required/ Clarification request	D 6.10; D 6.11; D 6.12	Internal audits and procedures to clarify this open issue will be provided until the date of the initial verification.	þ The open issue was clarified in explaining e-mails. But this aspect should be assessed during the first verification.
Additional Information required/ Clarification request	F 1.1; F 1.2	Short EIAs for boiler reconstruction (according to the Ukrainian legislation) will be provided for the verifier.	þ The open issue was clarified in explaining e-mails. But this aspect should be assessed during the first verification.

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TÜV SÜDDEUTSCHLAND

Annex 2

Information Reference List

Reference No.	Document or Type of Information
1.	On-site interview with the project developer at the office of the Ukrainian Institute of Engineering Ecology in Kiev at the 13th of April 2004, by auditing team of TÜV SÜDDEUTSCHLAND, Bau und Betrieb GmbH Validation team on-site: Friedrich Heeß — TÜV Süddeutschland, Bau und Betrieb GmbH Interviewed persons: Dr. Alexandr I. Sigal — Institute of Engineering Ecology (Director) - National Academy of Sciences of Ukraine, Kiev, Ukraine Oleksandr Filonenko — Scientific Engineering Centre "Biomass" (Junior Consultant), Kiev, Ukraine Vladimir Gomon — SVT – Europäisches Institut für Sanierung, Sicherheit, Versicherung und Umwelttechnik (Manager), Bous, Germany Dmitri Yu. Paderno — Institute of Engineering Ecology (Vice-Director) - National Academy of Sciences of Ukraine, Kiev, Ukraine
2.	On-site interviews at the office of JSC "Oblteplocomunergo" in Chernigiv, Ukraine at the 13th of April 2004, by auditing team of TÜV SÜDDEUTSCHLAND, Bau und Betrieb GmbH Validation team on-site: Friedrich Heeß — TÜV Süddeutschland, Bau und Betrieb GmbH Interviewed persons: Dr. Alexandr I. Sigal — Institute of Engineering Ecology (Director) - National Academy of Sciences of Ukraine, Kiev, Ukraine Vladimir Gomon — SVT – Europäisches Institut für Sanierung, Sicherheit, Versicherung und Umwelttechnik (Manager), Bous, Germany Oleksandr Oleksandrovych Belskiy — Head of the Division of Housing and Communal Services in Chernigiv (Chernigiv Regional State administration), Chernigiv, Ukraine Victor Myhailovich Herashchenko — Chief of the board JSC "Oblteplocomunergo", Chernigiv, Ukraine Aleksandr Ivanovich Gavrilenko — Vice-President of the Management, Chief engineer, JSC "Oblteplocomunergo", Chernigiv, Ukraine

Reference No.	Document or Type of Information
3.	On-site interviews/ visits in selected boiler houses/networks of Chernigiv District Heating System at the 14th of April 2004, by auditing team of TÜV SÜD Validation team on-site: Friedrich Heeß — TÜV Süddeutschland, Bau und Betrieb GmbH Interviewed persons: Vladimir Gomon — SVT – Europäisches Institut für Sanierung, Sicherheit, Versicherung und Umwelttechnik (Manager), Bous, Germany Victor Myhailovich Herashchenko — Chief of the board JSC "Oblteplocomunergo", Chernigiv, Ukraine Aleksandr Ivanovich Gavrilenko — Vice-President of the Management, Chief engineer, JSC "Oblteplocomunergo", Chernigiv, Ukraine
4.	Project Design Document for JI Project "District Heating System Rehabilitation of Chernigiv Region", April 19th, 2004 with seven annexes concerning baseline study, monitoring plan, legal and regulatory framework, estimation of IRR et cetera
5.	Project Design Document for JI Project "District Heating System Rehabilitation of Chernigiv Region", revised, May 13th, 2004 with seven annexes concerning baseline study, monitoring plan, legal and regulatory framework, estimation of IRR et cetera
6.	Annex 1 ff: District Heating System Rehabilitation of Chernigiv City Baseline and Project Calculations, May 13th, 2004
7.	Annex 2 ff: District Heating System Rehabilitation of Chernigiv Region Calculations, May 13th, 2004
8.	Annex 3 ff: Legal and Regulatory Framework, May 13th, 2004
9.	Annex 4 ff: Estimation of IRR and NPV of the Project
10.	Annex 5 ff: Estimation of IRR and NPV of the Alternative 1

Reference No.	Document or Type of Information
11.	Annex 6 ff: Estimation of IRR and NPV of the Alternative 2
12.	Annex 7: Natural Gas Consumption
13.	Letter of Reference, Erupt 4
14.	Letter of Endorsement, December 2003
15.	Decree - 31st July, 2003
16.	Several additional information by e-mails – period from April 17th to May 19th, 2004